ORDINANCE NO. 4462

AN ORDINANCE OF THE CITY OF RICHARDSON, TEXAS, AMENDING THE CODE OF ORDINANCES OF THE CITY OF RICHARDSON, BY AMENDING CHAPTER 8, ARTICLE II, SECTION 8-27 AND SECTION 8-28 ADOPTING THE 2021 EDITION OF THE INTERNATIONAL FIRE CODE, INCLUDING APPENDICES B,D,H,I, AND N, AND AMENDMENTS THERETO; PROVIDING A REPEALING CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY OF FINE NOT TO EXCEED TWO THOUSAND DOLLARS ($2,000.00) FOR EACH OFFENSE; AND PROVIDING FOR AN EFFECTIVE DATE.

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

SECTION 1. That the Code of Ordinances of the City of Richardson, Texas, be, and the same is hereby amended by amending Chapter 8, Article II, Sections 8-27 and 8-28, in part, to read as follows:

"Sec. 8-27. - Adopted.

There is hereby adopted by the City of Richardson, Texas, the International Fire Code, 2021 Edition, together with Appendices B, D, H, I, L, and N and amendments, a copy of which is on file in the City Secretary's Office and made a part of this Article for all purposes, the same as if copied in full herein, with the exception of such sections thereof as are hereinafter deleted, modified or amended."

"Sec. 8-28. - Amendments.

The following sections of the International Fire Code, 2021 Edition, together with Appendices B, D, H, I, L, and N, and amendments, are hereby amended to read as follows:

Section 101.1. of the International Fire Code is amended to read as follows:

> **[A] 101.1 Title.** These regulations shall be known as the Fire Code of the City of Richardson, hereinafter referred to as "this code."

Section 102.1 of the International Fire Code is amended change to read as follows:

> **[A] 102.1 Construction and design provisions.** The construction and design provisions of this code shall apply to:
>
> 1. Structures, facilities and conditions arising after the adoption of this code.
> 2. Existing structures, facilities and conditions not legally in existence at the time of adoption of this code.
> 3. Existing structures, facilities, and conditions when required in Chapter 11 or in specific sections of this code.

4. Existing structures, facilities and conditions that, in the opinion of the *fire code official*, constitute a distinct hazard to life or property.

Section 102.7 of the International Fire Code is amened to read as follows:

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be the current effective editions of those listed in Chapter 80, including Tentative Interim Amendments (TIAs) and Errata, except that the 2020 edition of NFPA 70 shall apply. These references shall supersede all previous editions and shall be part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

Section 103.1 of the International Fire Code is amended to read as follows:

[A] 103.1 Creation of agency. The Fire Marshal's Office is hereby created and the official in charge thereof shall be known as the *fire code official*. The function of the agency shall be the implementation, administration, and enforcement of the provisions of this code.

Section 105.3.3 of the International Fire Code is amended 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/or conducting associated inspections indicating the applicable provisions of this code have been met.

Section 105.6 of the International Fire Code is amended to delete 105.6.20.

Section 105.6 of the International Fire Code is amended to add 105.6.25 to read as follows:

105.6.25 Aisle Containment Systems. A construction permit is required to install or modify a*isle containment systems*.

Section 106.1 of the International Fire Code is amended to read as follows:

[A] 106.1 Submittals. Construction documents and supporting data shall be submitted in such form and detail as required by the fire code official. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

Exception: The fire code official is authorized to waive the submission of construction documents and supporting data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

Section 112.4 of the International Fire Code is amended to read as follows:

[A] 112.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than two thousand dollars [$2,000.00]. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 113.4 of the International Fire Code is amended to read as follows:

[A] 113.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not more than two thousand dollars [$2,000.00].

Section 202 of the International Fire Code is amended to add definitions to read as follows:

AISLE CONTAINMENT SYSTEM. A system of physical barriers and doors that separates cold supply airflow from hot exhaust airflow. Such systems are typically used to cool data center electronic equipment. There are two types of aisle containment systems, *hot* and *cold.*

[B] **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.

[BG] A**TRIUM.** A vertical space that is closed at the top, connecting two or more stories in Group I-2 and I-3 occupancies or three or more stories in all other occupancies.

[B] **DEFEND IN PLACE.** A method of emergency response that engages building components and trained staff to provide occupant safety during an emergency. Emergency response involves remaining in place, relocating within the building, or both, without evacuating the building.

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.

[B] FIREPLACE. A hearth and fire chamber or similar prepared place in which a fire may be made and which is built in conjunction with a chimney.

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

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, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

INFORMATION TECHNOLOGY EQUIPMENT (ITE). Equipment and systems rated 1000 volts or less, normally found in offices or other business establishments and similar environments classified as ordinary locations, that are used for creation and manipulation of data, voice, video, and similar signals that are not communications equipment as defined in NFPA 70 Article 100 and do not process communications circuits as defined in NFPA 70 Article 800.

OCCUPANCY CLASSIFICATION. Residential Group R-3; Change to read as follows:

Residential Group R-3. Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4, or I, including:

Buildings that do not contain more than two *dwelling units*
Care facilities that provide accommodations for five or fewer persons receiving care
Congregate living facilities (nontransient) with 16 or fewer occupants
Boarding houses (nontransient)
Convents
Dormitories
Fraternities and sororities
Monasteries
Congregate living facilities (transient) with 10 or fewer occupants
Boarding houses (transient)
Lodging houses (transient) with five or fewer *guestrooms* and 10 or fewer occupants

Exception: Detached one- and two-family dwellings and multiple (three or more) single-family dwellings (townhouses) that are three or less stories in height are regulated by the IRC (see 102.5 for the provisions of this code).

REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles.

SELF-SERVICE STORAGE FACILITY. Real property designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

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

WORK AREA. That portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed and portions of the building where work not initially intended by the owner is specifically required by this code.

Section 307.1.1 of the International Fire Code is amendedto read as follows:

307.1.1 Prohibited Open Burning. Open burning is prohibited.

Section 307 of the International Fire Code is amended to add section 307.1.2 as follows:

307.1.2 Burn Ban. When the County Commissioner's Court of either Collin or Dallas County adopts a burn ban order to prohibit outdoor burning in the unincorporated areas of the county, the ordered burn ban shall extend to include the incorporated areas of the City of

Richardson within the respective county. This includes any burning addressed in Sections 307 and 308 unless otherwise approved by the Fire Code Official.

Section 307.2 of the International Fire Code is amended to Section 307.2.

Section 307.3 of the International Fire Code is amended to read as follows:

307.3 Extinguishment Authority. The fire code official is authorized to order the extinguishment by the property owner, another person responsible, or the fire department of any open burning.

Section 307.4 of the International Fire Code is amended to read as follows:

307.4 Location. Recreational fires and outdoor fireplaces shall comply with 307.4.1 through 307.4.4.

Section 307.4.1 of the International Fire Code is amended to read as follows:

307.4.1 Prohibited Bonfires. Bonfires are prohibited.

Section 307 of the International Fire Code is amended to add section 307.4.4 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*.

Section 307.5 of the International Fire Code is amended to read as follows:

307.5 Attendance. *Recreational fires*, and use of outdoor fireplaces shall be constantly attended until the fire is extinguished. Not fewer than one portable fire extinguisher complying with Section 906 with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

Section 308.1.4 of the International Fire Code is amended to read as follows:

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

Exceptions:

1. One- and two-family dwellings, not including *townhouses*.
2. Where buildings, balconies and decks are protected by an *approved* automatic sprinkler system.
3. {Exception 3 deleted}

Section 308.1.6.2 of the International Fire Code is amended to read as follows:

308.1.6.2 Portable fueled open-flame devices. Portable open-flame devices fueled by flammable or combustible gases or liquids shall be enclosed or installed in such a manner as to prevent the flame from contacting combustible material.

Exceptions:

1. LP-gas-fueled devices used for sweating pipe joints or removing paint in accordance with Chapter 61.
2. Cutting and welding operations in accordance with Chapter 35.
3. Torches or flame-producing devices in accordance with Section 308.1.3.
4. Candles and open-flame decorative devices in accordance with Section 308.3.

Section 308.1.6.3 of the International Fire Code is amended to read as follows:

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

Section 311.5 of the International Fire Code is amended 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 114 of this code relating to structural or interior hazards, as required by section 311.5.1 through 311.5.5.

Section [403.5] 403.4 of the International Fire Code is amended to read as follows:

403.4 Group E Occupancies. An *approved* fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. A diagram depicting two evacuation routes shall be posted in a conspicuous location in each classroom. Group E occupancies shall also comply with Sections 403.5.1 through 403.5.3.

Section 404.2.2 of the International Fire Code is amended to read as follows:

404.2.2 Fire safety plans. Fire safety plans shall include the following:

1. The procedure for reporting a fire or other emergency.
2. The life safety strategy including the following:
   - 2.1. Procedures for notifying occupants, including areas with a private mode alarm system.
   - 2.2. Procedures for occupants under a defend-in-place response.
   - 2.3. Procedures for evacuating occupants, including those who need evacuation assistance.
3. Site plans indicating the following:
   - 3.1. The occupancy assembly point.
   - 3.2. The locations of fire hydrants.
   - 3.3. The normal routes of fire department vehicle access.
4. Floor plans identifying the locations of the following:
   - 4.1. Exits.
   - 4.2. Primary evacuation routes.
   - 4.3. Secondary evacuation routes.

4.4. Accessible egress routes.

4.4.1. Areas of refuge.

4.4.2. Exterior areas for assisted rescue.

4.5. Refuge areas associated with smoke barriers and horizontal exits.

4.6. Manual fire alarm boxes.

4.7. Portable fire extinguishers.

4.8. Occupant-use hose stations.

4.9. Fire alarm annunciators and controls.

4.10. Fire extinguishing system controls.

5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.

Section 405.5 of the International Fire Code is amended 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. In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill termination points and frequency.
2. In Groups I-1, I-2, I-3 and R-4, where staff-only emergency evacuation drills are conducted after visiting hours or where care recipients are expected to be asleep, a coded announcement shall be an acceptable alternative to audible alarms.
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.

Section 501.4 of the International Fire Code is amended to read as follows:

501.4 Timing of Installation. When fire apparatus access roads or a water supply for fire protection is 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.

Section 503.1.1 of the International Fire Code is amended e to read as follows:

503.1.1 Buildings and facilities. *Approved* fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall, unless otherwise approved, comply with the requirements of this section and shall extend to within 150 feet (45 720

mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an *approved* route around the exterior of the building or facility. Except for one- or two-family dwellings [not including *townhouses*], the path of measurement shall be along a minimum ten foot (10') wide unobstructed pathway, with no greater than 1:4 grade, around the external walls of the structure, unless otherwise approved.

Exceptions:

1. The *fire code official* is authorized to increase the dimension of 150 feet (45 720 mm) to 200 feet (60 960 mm) where any of the following conditions occur:
   1.1. The building is equipped throughout with an *approved* automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.
   1.2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an *approved* alternative means of fire protection is provided.
   1.3. There are not more than two Group R-3 or Group U occupancies.
2. Where *approved* by the *fire code official*, fire apparatus access roads shall be permitted to be exempted or modified for solar photovoltaic power generation facilities.

Section 503.2.1 of the International Fire Code is amended to read as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7315 mm), exclusive of shoulders, except for *approved* security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4267 mm).

Section 503.2.2 of the International Fire Code is amended to read as follows:

503.2.2 Authority. The *fire code official* shall have the authority to require an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations.

Section 503.2.3 of the International Fire Code is amended to read as follows:

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support loads of 80,000 Lbs. for fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

Section 503.2.7 Grade of the International Fire Code is amendede to read as follows:

503.2.7 Grade. The grade of the fire apparatus access road shall be maximum 10% with a 3% cross slope.

Section 503.3 of the International Fire Code is amended to read as follows:

503.3 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. 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.

Section 503.4 of the International Fire Code is amended 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 any area marked as a fire lane as described in Section 503.3 shall be maintained at all times.

Section 503.6of the International Fire Code is amended to read as follows:

503.6 Security gates. The installation of security gates across fire apparatus access roads or parking garage driveways shall be approved by the fire code official. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

Section 504.1of the International Fire Code is amended to read as follows:

504.1 Required access. Exterior doors and openings required by this code or the International Building Code shall be maintained readily accessible for emergency access by the fire department. An *approved* access walkway leading from *fire apparatus access roads* to exterior openings shall be provided where required by the *fire code official*. At least one such walkway leading to each interior courtyard shall provide a straight path where required by the fire code official.

Section 505.1of the International Fire Code is amended 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 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. 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.

Exception: R-3 Single Family occupancies shall have *approved* numerals of a minimum 3½ 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.

(Ord. No. 3492, § 2, 11-8-04)

Section 506.1.2of the International Fire Code is amended to read as follows:

506.1.2 Key boxes for elevator keys. Key boxes shall be provided for new and existing elevators. Key boxes provided for elevator keys shall comply with Section 506.1 and all the following:

1. The key box shall be compatible with an existing rapid entry key box system in use in the jurisdiction and approved by the fire code official.

2. The front cover shall be permanently labeled with the words "Fire Department Use Only—Elevator Keys."

3. The key box shall be mounted at each elevator bank at the lobby nearest to the lowest level of fire department access.

4. The key box shall be mounted 5 feet 6 inches (1676 mm) above the finished floor to the right side of the elevator bank.

5. Contents of the key box are limited to elevator keys. Additional elevator access tools, keys, and information pertinent to emergency planning or elevator access shall be permitted where authorized by the fire code official.

6. In buildings with two or more elevator banks, a single key box shall be permitted to be used where such elevator banks are separated by not more than 30 feet (9144 mm). Additional key boxes shall be provided for each individual elevator or elevator bank separated by more than 30 feet (9144 mm).

Exception: A single key box shall be permitted to be located adjacent to a fire command center.

Section 507.4of the International Fire Code is amended 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 exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. On new systems, or whenever hydraulic calculations are necessary, plan submittals shall be accompanied by a copy of the original City of Richardson 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 the applicable referenced *NFPA* standard. Reference Section 903.3.5 for additional design requirements.

Section 507.5.4of the International Fire Code is amended to read as follows:

507.5.4 Obstruction. A minimum five foot (1524 mm) wide unobstructed access to fire hydrants shall be maintained. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

Section 507.5.5of the International Fire Code is amended to read as follows:

507.5.5 Clear space around hydrants. A minimum five foot (1524 mm) wide clear space shall be maintained around the circumference of fire hydrants, except as otherwise required or *approved*. Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department connections or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible.

Section 509. of the International Fire Code is amended tochange add section 509.1.2 to read as follows:

509.1.2 Sign Requirements. Signs shall comply with local written policies as established by the *fire code official*.

Section 605.4.1 through 605.4.2.2of the International Fire Code are amended to read as follows:

605.4 Fuel oil storage systems. Fuel oil storage systems for building heating 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 142 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 605.4.2.2 through 605.4.2.8 and Chapter 57.

605.4.2.1 Approval. Indoor fuel oil storage tanks shall be in accordance with UL 80, UL 142 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 or UL 2085, and also listed as a double-wall/secondary containment tank for Class II liquids.

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 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.

Section 807.5.2.2 and 807.5.2.3of the International Fire Code are amended 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.

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.

Section 807.5.5.2 and 807.5.5.3of the International Fire Code are amended to read as follows:

807.5.5.2 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.

807.5.5.3 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.

Section 901.4.7of the International Fire Code is amended to read as follows:

901.4.7 Pump and riser room requirements. A dedicated fire sprinkler riser room, or a room dedicated only to building systems, shall be provided for the main fire sprinkler riser and the fire alarm control panel that supervises the fire sprinkler system. Where provided, fire pump rooms and automatic sprinkler system riser rooms shall be designed with adequate space for all equipment necessary for the installation, as defined by the manufacturer, with sufficient working space around the stationary equipment. Clearances around equipment to

elements of permanent construction, including other installed equipment and appliances, shall be sufficient to allow firefighting operation, inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly. Fire pump and automatic sprinkler system riser rooms shall be provided with doors and unobstructed passageways large enough to allow removal of the largest piece of equipment.

901.4.7.1 Access. Rooms containing the main automatic sprinkler system riser(s), and/or fire pumps and controllers, shall be provided with an exterior access door. The door shall be locked, and a key shall be always available in an *approved* key box at the exterior of the door.

Section 901.4.7.2of the International Fire Code is amended to read as follows:

901.4.7.2 Marking access doors. Access doors for automatic sprinkler system riser rooms and fire pump rooms shall be labeled with *approved* signs.

Section 901.6.1 of the International Fire Code is amended to add section 901.6.1 to read as follows:

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

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed or inspected by approved camera when foreign material is present or when caps are missing, and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.
2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the fire code official) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.
3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the fire code official.
5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.
6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (fire code official) shall be followed.

7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.
8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.
9. Contact the fire code official for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the fire code official.

Section 901.6.3 of the International Fire Code is amended to add Section 901.6.3.2 to read as follows:

901.6.3.2 Existing fire alarm systems shall include the following documentation contained in an *approved* fire alarm system document cabinet complying with *NFPA 72* Section 7.7.2:

A floor plan indicating location of all:

1. Fire sprinkler and standpipe system control valves.
2. Fire sprinkler risers, including pre-action systems.
3. Fire pumps.
4. All fire alarm system initiating devices.

Section 901.6.4 of the International Fire Code is amended 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. In the event of an excessive number of activations, the fire department may request that the business or property owner take the system out of service and comply with 901.7.

Section 901.7of the International Fire Code is amended 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.

Where utilized, fire watches shall be provided with not less than one *approved* means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

901.7.1 through 901.7.6 remain unchanged.

Section 903.2of the International Fire Code is amended to read as follows:

903.2 Where required. An automatic sprinkler system shall be installed:

1. In new buildings: Throughout new buildings with an area of 5,000 square feet or greater. For the purpose of this provision, *fire areas* shall not define separate buildings.

2. In existing buildings:

   a. Throughout new areas of 5,000 square feet or more when fire wall(s) or fire barrier(s) separate the existing from the new construction, or, throughout the entire building when such fire separation is not present. For the purposes of this provision, *fire areas* shall not define separate buildings within the new construction, OR

   b. If the cumulative area of the building with a new addition exceeds the areas indicated in 903.2.1 through 903.2.12, regardless of separation, those sections apply, OR

   c. Change of use / occupancy classification, sprinklers shall comply with 903.2.1 through 903.2.12.

3. In locations described in Sections 903.2.1 through 903.2.12.

Exceptions:

1. *Open parking garages* in compliance with Section 406.5 of the *International Building Code*;

2. Patios complying with all the following:

   a. Non-combustible construction; and,

   b. No combustible materials, including furnishings, are stored or used on the patio; and,

   c. Openings on at least two opposite sides of the patio. The openings shall be minimum 20% of the area of the patio perimeter walls on each of the opposite sides.

3. 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 under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating "ELEVATOR MACHINERY – NO STORAGE ALLOWED."

Section 903.2.11. of the International Fire Code is amended to add section 903.2.11.7to read as follows:

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.

Section 903.2.11. of the International Fire Code is amended to add section 903.2.11.8 to read as follows:

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.

Section 903.3.1.1.1of the International Fire Code is amended 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 rooms or areas are protected with an *approved* automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from a room merely because it is damp, of fire-resistance-rated construction or contains electrical equipment.

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

Section 903.3.1.2.2of the International Fire Code is amended to read as follows:

903.3.1.2.2 Corridors and balconies. Sprinkler protection shall be provided in all corridors and for all balconies.

{Delete the rest of this section.}

Section 903.3.1.2.3 of the International Fire Code is amended to delete read asfollows:

903.3.1.2.3 Attics and Attached Garages. Sprinkler protection is required in attic spaces of buildings two or more stories in height, in accordance with NFPA 13 and/or NFPA 13R requirements, and in attached garages or in accordance with state law."

Section 903.3.1.3of the International Fire Code is amended 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.

Section 903.3.1.4 of the International Fire Code is amendedto 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, pre-action, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect attic spaces.

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

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and

2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and

3. The attic space is a part of the building's thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

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

Section 903.3.5of the International Fire Code is amended to read as follows:

903.3.5 Water Supplies. Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 9033.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section, TCEQ Rules, and the *International Plumbing Code*. For connections to public waterworks systems, the water supply test used for design of fire protection systems shall be adjusted to account for seasonal and daily pressure fluctuations based on information from the water supply authority and as *approved* by the *fire code official*.

Water supplies 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 minimum 5 psi safety factor, unless otherwise *approved*. See Section 507.4 for additional design requirements.

Section 903.3.5. of the International Fire Code is amended to add section 903.5.3 to read as follows:

903.3.5.3 Backflow Prevention Valve Location. Backflow prevention valves shall be in a fire sprinkler riser room, fire pump room, or other approved indoor location.

Section 903.4of the International Fire Code is amended to read as follows:

903.4 Sprinkler system supervision and alarms. Valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and waterflow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

Exceptions:

1. Automatic sprinkler systems protecting one- and two-family dwellings;
2. Limited area sprinkler systems in accordance with Section 903.3.8;
3. Automatic sprinkler systems installed in accordance with *NFPA 13R* where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided;
4. Jockey pump control valves that are sealed or locked in the open position;

5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position;
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position;
7. Trim valves to pressure switches in dry, pre-action and deluge sprinkler systems that are sealed or locked in the open position.

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 constant water flow between 45-60 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 903.4.2of the International Fire Code is amended to read as follows:

903.4.2 Alarms. An *approved* audible device, located on the exterior of the building in an *approved* location, shall be connected to each automatic sprinkler system. Such sprinkler waterflow alarm devices shall be activated by waterflow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

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. The device shall be located on the exterior of the building, in an *approved* location, to identify the primary emergency access to the fire sprinkler riser room, or as otherwise *approved*.

Section 904.2.1 is deleted.

Section 903.4.4 of the International Fire Code is amendedto read as follows:

903.4.4 Group R-2 Riser Security. Fire sprinkler riser room access doors of group R-2 buildings shall be secured to prevent unauthorized access.

Section 903.4.5of the International Fire Code is amended to read as follows:

903.4.5 Dedicated Function Fire Alarm System ["Sprinkler Waterflow and Supervisory System"] Control Panel Location. In fire sprinklered buildings, the dedicated function fire alarm system ["sprinkler waterflow and supervisory system"] control panel shall be located at the main fire sprinkler riser room, unless otherwise *approved*. A remote annunciator may also be required to facilitate Fire Department response.

Section 903.4.6 of the International Fire Code is amended to read as follows:

903.4.6 Riser Room Access. Main fire sprinkler riser rooms shall have an exterior fire department access door not less than 3 ft. in width and 6 ft. – 8 in. in height, regardless of any interior doors that are provided.

Section 904.3.5of the International Fire Code is amended to read as follows:

904.3.5 Monitoring. Where a building fire alarm system, or a "sprinkler waterflow and supervisory system", is installed, automatic fire-extinguishing systems shall be monitored by the building fire alarm system, or "sprinkler waterflow and supervisory system".

Section 904.13.1of the International Fire Code is amended to read as follows:

904.13.1 Manual system operation. A manual actuation device shall be located at or near a means of egress from the cooking area not less than 10 feet (3048 mm) and not more than 20 feet (6096 mm) from the kitchen exhaust system, unless otherwise approved. The manual actuation device shall be installed not more than 48 inches (1200 mm) nor less than 42 inches (1067 mm) above the floor and shall clearly identify the hazard protected. The manual actuation shall require a maximum force of 40 pounds (178 N) and a maximum movement of 14 inches (356 mm) to actuate the fire suppression system.

Exception: Automatic sprinkler systems shall not be required to be equipped with manual actuation means.

Section 905.2of the International Fire Code is amended to read as follows:

905.2 Installation Standard. Standpipe systems shall be installed in accordance with this section and *NFPA 14*. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

Section 905.3.1 of the International Fire Code is amended to read as follows:

905.3.1 Height. Class III standpipe systems shall be installed throughout buildings where any of the following conditions exist:

1. Four or more stories are above or below grade plane.
2. The floor level of the highest story is located more than 30 feet (9144 mm) above the lowest level of the fire department vehicle access.
3. The floor level of the lowest story is located more than 30 feet (9144 mm) below the highest level of fire department vehicle access.

Exceptions:

1. Class I standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Class I standpipes are allowed in Group B and E occupancies.
3. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet (45 720 mm) above the lowest level of fire department vehicle access.
4. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section 905.5.
5. Class I standpipes are allowed in basements equipped throughout with an automatic sprinkler system.
6. Class I standpipes are allowed in buildings where occupant-use hose lines will not be utilized by trained personnel or the fire department.
7. In determining the lowest level of fire department vehicle access, it shall not be required to consider either of the following:

    7.1. Recessed loading docks for four vehicles or less.

7.2. Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

Section 905.3 of the International Fire Code is amended to add Section 905.3.9 and exception to read as follows:

905.3.9 Buildings Exceeding 10,000 sq. ft. In buildings exceeding 10,000 square feet in area per story and where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided. For the purpose of this provision, fire areas shall not define separate buildings.

Exceptions:

1. Automatic dry, semi-automatic dry, and manual dry standpipes are allowed as provided for in *NFPA 14* where *approved* by the *fire code official*;
2. R-2 occupancies of four stories or less in height having no interior corridors.

Section 905.4of the International Fire Code is amended to read as follows:

905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

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

   Exception deleted.

2. On each side of the wall adjacent to the exit opening of a horizontal exit.

   Exception: Where floor areas adjacent to a horizontal exit are reachable from an interior exit stairway hose connection by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the horizontal exit.

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

   Exception: Where floor areas adjacent to an exit passageway are reachable from an exit stairway hose connection by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall. In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a hose connection, except that the most demanding standpipe shall be provided with a two-way hose connection, 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, or as otherwise *approved* by the *fire code official*.

6. Where the most remote portion of a non-sprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60 960 mm) from a hose connection, the *fire code official* is authorized to require that additional hose connections be provided in *approved* locations.
7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at maximum two hundred feet (200') intervals along major corridors thereafter, or as otherwise *approved* by the *fire code official.*

Section 905.4.3 of the International Fire Code is amended to read as follows:

905.4.3 Identification and clearance. Standpipe hose valve connection locations shall be clearly identified in the following manner:

1. In parking garages, a blue reflective driveway marker shall be placed in the center of the driveway in line with the center of the standpipe connection.
2. When the connection is on a wall the pipe shall be painted red from floor to ceiling, or minimum 10-feet high, whichever is less.
3. The *fire code official* may require additional signs and/or markings to clearly identify standpipe locations.

In garages and driveways, a minimum 36-inch wide, permanently marked, clear path shall be provided in front of standpipe hose connections and shall extend from the center of the connection to the aisle or driveway from which it can be accessed. Vehicle impact protection complying with Section 312 shall be provided where damage from a vehicle can occur.

Section 905.8of the International Fire Code is amended 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.

Section 905.9of the International Fire Code is amended to read as follows:

905.9 Valve supervision. Valves controlling water supplies shall be supervised in the open position so that a change in the normal position of the valve will generate a supervisory signal at the supervising station required by Section 903.4. Where a fire alarm system is provided, a signal shall be transmitted to the control unit.

Exceptions:

1. Valves to underground key or hub valves in roadway boxes provided by the municipality or public utility do not require supervision.
2. Valves locked in the normal position and inspected as provided in this code in buildings not equipped with a fire alarm system.

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 45-60 seconds.

All control valves in the sprinkler and standpipe systems, except for fire department hose connection valves, shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 906.1 of the International Fire Code is amended to delete Exception 3 to read as follows:

906.1 Where required. Portable fire extinguishers shall be installed in all of the following locations:

1. In new and existing Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.

   Exceptions:

   1. In Group R-2 occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each dwelling unit is provided with a portable fire extinguisher having a minimum rating of 1-A:10-B:C.
   2. In Group E occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each classroom is provided with a portable fire extinguisher having a minimum rating of 2-A:20-B:C.

2. Within 30 feet (9144 mm) distance of travel from commercial cooking equipment and from domestic cooking equipment in Group I-1; I-2, Condition 1; and R-2 college dormitory occupancies.
3. In areas where flammable or combustible liquids are stored, used or dispensed.
4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 3316.1.
5. Where required by the sections indicated in Table 906.1.
6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the *fire code official*.

Exception: Portable fire extinguishers are not required at normally unmanned Group U occupancy buildings or structures where a portable fire extinguisher suitable to the hazard of the location is provided on the vehicle of visiting personnel.

Section 907.1 of the International Fire Code is amended toadd Section 907.1.4 to read as follows:

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

Section 907.1.5 of the International Fire Code is amended to read as follows:

907.1.5 Fire Alarm Control Panel Location. In fire sprinklered buildings, the fire alarm control panel shall be located at the main fire sprinkler riser room, unless otherwise *approved*. A remote annunciator may also be required to facilitate Fire Department response.

Section 907.2.1of the International Fire Code is amended 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 having an

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

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

Activation of fire alarm notification appliances shall:

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

Section 907.2.3of the International Fire Code is amended 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 occupancies. Where automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

Exceptions:

1. A manual fire alarm system is not required in Group E educational and day care occupancies with an occupant load of 50 or less.
2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less provided that activation of the manual fire alarm system initiates an *approved* occupant notification signal in accordance with Section 907.5.
3. Manual fire alarm boxes shall not be required in Group E occupancies where all the following apply:
    3.1. Interior *corridors* are protected by smoke detectors.
    3.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by *heat detectors* or other *approved* detection devices.
    3.3. Shops and laboratories involving dusts or vapors are protected by *heat detectors* or other *approved* detection devices.
    3.4. Manual activation is provided from a normally occupied location.
4. Manual fire alarm boxes shall not be required in Group E occupancies where all the following apply:
    4.1. The building is equipped throughout with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1.

4.2. The emergency voice/alarm communication system will activate on sprinkler water flow.

4.3. Manual activation is provided from a normally occupied location.

5. Residential in-home day care with not more than 12 children shall have interconnected single station smoke alarms in all habitable rooms. (For care of more than five children 2-1/2 or less years of age, see Section 907.2.6.)

Section 907.4.2; add Section 907.4.2.7 of the International Fire Code are amended to read as follows:

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

Section 907.5.2.2.3of the International Fire Code is amended to read as follows:

907.5.2.2.3 Alternative uses. The emergency voice/ alarm communication system shall be allowed to be used for other announcements, provided that the manual fire alarm use takes precedence over any other use, unless approved by the fire code official.

Section 907.5.2.3of the International Fire Code is amended by amending exception 1 to read as follows:

907.5.2.3 Visible alarms. Visible alarm notification appliances shall be provided in accordance with Sections 907.5.2.3.1 through 907.5.2.3.3.

Exceptions:

1. When *approved* by the *fire code official*, visible alarm notification appliances are not required in alterations, except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.
2. Visible alarm notification appliances shall not be required in exits as defined in Chapter 2.
3. Visible alarm notification appliances shall not be required in elevator cars.
4. Visual alarm notification appliances are not required in critical care areas of Group I-2 Condition 2 occupancies that comply with Section 907.2.6, Exception 2.
5. A visible alarm notification appliance installed in a nurses' control station or other continuously attended staff location in a Group I-2, Condition 2 suite shall be an acceptable alternative to the installation of visible alarm notification appliances throughout the suite or unit in Group I-2, Condition 2 occupancies that are in compliance with Section 907.2.6, Exception 2.

Section 907.6.1 of the International Fire Code is amended toadd Section 907.6.1.1 to read as follows:

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

Section 907.6.3 of the International Fire Code is amended to delete exceptions 1 through 3 to read as follows::

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.

EXCEPTION: Fire alarm devices that are replacing existing equipment.

Section 907.6.6of the International Fire Code is amended to read as follows:

907.6.6 Monitoring. Fire alarm systems required by this chapter or by the *International Building Code* shall be monitored by an *approved* supervising station in accordance with *NFPA 72*. See 907.6.3 for the required information transmitted to the supervising station.

Exception: Monitoring by a supervising station is not required for:

1. Single- and multiple-station smoke alarms required by Section 907.2.10.
2. Smoke detectors in Group 1-3 occupancies.
3. *Automatic sprinkler systems* in one- and two-family dwellings.

Section 910.2of the International Fire Code is amended by amending Exceptions 2. and 3. to read as follows:

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

Exceptions:

1. Frozen food warehouses used solely for storage of Class I and II commodities where protected by an approved automatic sprinkler system.
2. Only manual smoke and heat removal shall be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.
3. Only manual smoke and heat removal shall be required in areas of buildings equipped with control mode special application sprinklers with a response time index of $50(m \times S)^{1/2}$ or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

Section 910.3 of the International Fire Code is amended to add section 910.3.4 to read as follows:

910.3.4 Vent Operation. Smoke and heat vents shall be capable of being operated by *approved* automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.4.1 through 910.3.4.2.

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

Exception: Manual only systems per Section 910.2.

910.3.4.2 Non-sprinklered Buildings. Where installed in buildings not equipped with an *approved* automatic sprinkler system, smoke and heat vents shall operate automatically

by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

Exception: Listed gravity-operated drop out vents.

Section 910.4.3.1of the International Fire Code is amended 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 automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m^2 per 0.4719 m^3/s) of smoke exhaust.

Section 912.2of the International Fire Code is amended to read as follows:

912.2 Location. With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus unless approved. The location of fire department connections shall be approved by the fire code official.

Section 912.2 of the International Fire Code is amended to add Section 912.2.3 to read as follows:

912.2.3 Hydrant Distance. An *approved* fire hydrant shall be located between 35 and 135 feet of the fire department connection, measured along an *approved* route [as the fire hose is laid] along an unobstructed path.

Section 912.2.2 of the International Fire Code is amended to add second paragraph to read as follows:

912.2.2 Existing buildings. On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location. Such signs shall be subject to the approval of the fire code official.

On existing buildings, the fire department connection may be wall-mounted.

Section 912.7.1 of the International Fire Code is amended to add to read as follows:

912.7.1 Missing Caps. 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 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; 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.

Section 913.2.1of the International Fire Code is amended to read as follows:

913.2.1 Protection of fire pump rooms. Rooms where fire pumps are located shall be separated from all other areas of the building in accordance with Section 913.2.1 of the *International Building Code*.

The fire pump room shall have an exterior fire department access door 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. Access keys shall be provided in the key box as required by Section 506.1.

Section 913.6 of the International Fire Code is amended to add to read as follows:

913.6 Minimum Suction Pressure. Where fire pumps are employed, the minimum suction pressure shall not be less than 20 psi at 150% of rated pump capacity.

Section 914.3.1.2of the International Fire Code is amended to read as follows:

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

Exception: Two connections to the same main shall be permitted provided that the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through not fewer than one of the connections.

Section 1009.8.1of the International Fire Code is amended to read as follows:

1009.8.1 System requirements. Two-way communication systems shall provide two-way communication between each required location and an approved constantly attended central control point or other approved location. A connection shall occur within 60 seconds of activation. The address and location shall be automatically identified. The two-way communication system shall include both audible and visible signals.

Section 1020.2 of the International Fire Code is amended to add exception 6 to read as follows:

1020.2 Construction. Corridors shall be fire-resistance rated in accordance with Table 1020.2. The corridor walls required to be fire-resistance rated shall comply with Section 708 of the International Building Code for fire partitions.

Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has not less than one door opening directly to the exterior and rooms for assembly purposes have not less that one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in the exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a dwelling unit or sleeping unit in an occupancy in Groups I-1 and R.
3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in an occupancy in Group B that is a space requiring only a single means of egress complying with Section 1006.2.
5. Corridors adjacent to the exterior walls of buildings shall be permitted to have unprotected openings on unrated exterior walls where unrated walls are permitted by Table 705.5 of the International Building Code and unprotected openings are permitted by Table 705.8 of the International Building Code.
6. In unsprinklered group B occupancies, corridor walls and ceilings need not be of fire-resistive construction within a single tenant space when the space is equipped with *approved* automatic smoke-detection within the corridor. The actuation of

any detector must activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors must be connected to an *approved* automatic fire alarm system where such system is provided.

Section 1103.3of the International Fire Code is amended to read as follows:

1103.3 Elevators, escalators and moving walks. Existing elevators, escalators and moving walks shall comply with the requirements of Sections 1103.3.1 and 1103.3.2. Signs shall be provided as required by Section 604.4.

Section 1103.5of the International Fire Code is amended Section 1103.5 to read as follows:

1103.5 Sprinkler systems. An automatic sprinkler system shall be provided in existing buildings in accordance with Sections 1103.5.1 through 1103.5.6. For the purpose of fire sprinkler protection and fire alarm requirements included in this section, the work area shall be extended to include at least the entire tenant space or spaces bounded by walls capable of resisting the passage of smoke containing the subject work area, and if the work area includes a corridor, hallway, or other exit access, then such corridor, hallway, or other exit access shall be protected in its entirety on that particular floor level.

Section 1103.5.1 of the International Fire Code is amended to read as follows:

1103.5.1 Group A-2. Where alcoholic beverages are consumed in a Group A-2 occupancy having an occupant load of 300 or more, the fire area containing the Group A-2 occupancy shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1. Fire sprinkler system installation shall be completed within 24 months from date of notification by the *fire code official.*

Section 1103.5of the International Fire Code is amended to add Section 1103.5.6 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.

Section 1103.5.3 of the International Fire Code is amended to read as follows:

1103.5.3 Group I-2, Condition 2. In addition to the requirements of Section 1103.5.2, existing buildings of Group I-2, Condition 2 occupancy shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. The automatic sprinkler system shall be installed as established by the adopting ordinance. The automatic sprinkler system shall be installed within 5-years from date of notification by the fire code official.

Section 1103.5.4of the International Fire Code is amended to read as follows:

1103.5.4 High-rise buildings. Where Appendix M has not been adopted, existing high-rise buildings that do not have a previously approved fire sprinkler system shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1 where any of the following conditions apply:

1. The high-rise building has an occupied floor located more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access.

2. The high-rise building has occupied floors located more than 75 feet (22 860 mm) and not more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, and the building does not have at least two interior exit stairways complying with Section 1104.10 that are separated from the building interior by fire assemblies having a fire-resistance rating of not less than 2 hours with opening protection in accordance with Table 716.1(2) of the International Building Code.

3. The high-rise building has occupied floors located more than 75 feet (22 860 mm) and not more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, and the building does not have a fire alarm system that includes smoke detection in mechanical equipment, electrical, transformer, telephone equipment and similar rooms; corridors; elevator lobbies; and at doors penetrating interior exit stairway enclosures.

Building owners shall file a compliance schedule with the fire code official not later than 365 days after receipt of a written notice. The compliance schedule shall not exceed 12 years for completion of the automatic sprinkler system retrofit.

Section 1103.7of the International Fire Code is amended to read as follows:

1103.7 Fire alarm systems. An *approved* fire alarm system shall be installed in existing buildings and structures in accordance with Sections 1103.7.1 through 1103.7.7, shall provide occupant notification in accordance with Section 907.5 unless other requirements are provided by other sections of this code, and shall be monitored as described in Section 907.6.6.

Exception: Occupancies with an existing, previously *approved* fire alarm system.

Section 1103.7 of the International Fire Code is amended to add Sections 1103.7.7 and 1103.7.7.1 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.

Section 2304.1of the International Fire Code is amended to read as follows:

2304.1 Supervision of Dispensing. The dispensing of fuel at motor fuel-dispensing facilities shall be in accordance with 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.

Table 3206.2, footnote h of the International Fire Code is amended by amending footnote h to read as follows:

h. Where storage areas are protected by either early suppression fast response (ESFR) sprinkler systems or control mode special application sprinklers with a response time index of 50 (m • s) 1/2 or less that are listed to control a fire in the stored commodities with 12 or fewer sprinklers, installed in accordance with *NFPA 13*, manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall be required within these areas.

Section 5601.1.3of the International Fire Code is amended to read as follows:

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

Exception: The use of fireworks for *approved* outdoor fireworks displays, use of pyrotechnics before a proximate audience, and pyrotechnic special effects in motion picture, television, theatrical, and group entertainment productions complying with Section 5608.

{Delete remainder of text.}

Section 5601.1.4 of the International Fire Code is amended to read as follows:

5601.1.4 Rocketry. The use of model and high-power rockets is prohibited. The storage and handling of model and high-power rockets shall comply with the requirements of *NFPA 1122*, *NFPA 1125* and *NFPA 1127*.

Section 5703.6of the International Fire Code is amended to read as follows:

5703.6 Piping Systems. Piping systems, and their component parts, for flammable and combustible liquids shall be in accordance with Sections 5703.6.1 through 5703.6.11. An *approved* method of secondary containment shall be provided for underground tank and piping systems.

Section 5704.2.9.5 of the International Fire Code is amended to add Section 5704.2.9.5.3 to read as follows:

5704.2.9.5.3 Combustible Liquid Storage Tanks Inside of Buildings. The maximum aggregate allowable quantity limit shall be 3,000 gallons (11 356 L) of Class II or III combustible liquid for storage in protected aboveground tanks complying with Section 5704.2.9.7 when all the following conditions are met:

1. The entire 3,000-gallon (11 356 L) quantity shall be stored in protected aboveground tanks;
2. The 3,000-gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks;
3. The tanks shall be in a room protected by an automatic sprinkler system complying with Section 903.311; and

4. Tanks shall be connected to fuel-burning equipment, including generators, utilizing an *approved* closed piping system.

The quantity of combustible liquid stored in tanks complying with this section shall not be counted towards the maximum allowable quantity set forth in Table 5003.1.1(1), and such tanks shall not be required to be in a control area. Such tanks shall not be located more than two stories below grade.

Section 5704.2.11.4of the International Fire Code is amended to read as follows:

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

Section 5704.2.11.4.2of the International Fire Code is amended 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.

Section 5704.2.11.4.3 of the International Fire Code is amended toadd section 5704.2.11.4.3 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.

Section 5707.4of the International Fire Code is amended to read as follows:

5707.4 Mobile fueling areas. During fueling, the mobile fueling vehicle and point of connection to the vehicle shall not be located on public streets, public ways or inside buildings. Fueling on the roof level of parking structures or other buildings is prohibited.

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.

Section 6103.2.1 of the International Fire Code is amended toadd Section 6103.2.1.8 to read as follows:

6103.2.1.8 Jewelry Repair, Dental Labs and Similar Occupancies. Where natural gas service is not available, portable LP-Gas containers are allowed to be used to supply *approved* torch assemblies or similar appliances. Such containers shall not exceed 20-pound (9.0 kg) water capacity. Aggregate capacity shall not exceed 60-pound (27.2 kg) water capacity. Each device shall be separated from other containers by a distance of not less than 20 feet.

Section 6104.2 of the International Fire Code is amended is deleted

Chapter 80 is amended by amending the NFPA references section to read as follows:

NFPA National Fire Protection Association

1 Batterymarch Park

Quincy, MA 02169-7471

For construction/operational permits, the edition of applicable NFPA standards effective at the time of initial permit application shall apply. Where the following referenced section numbers have changed, the updated, applicable section number shall apply.

Exception: 2020 edition NFPA 70 applies.

[All references remain]

Chapter 80 is amended to add the following NFPA referenced standard:

NFPA 75 Standard for the Fire Protection of Information Technology Equipment

Appendix D Section D103.4 is amended 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. Dead-end fire apparatus access roads in multi-family residential developments shall not exceed 500 feet in length.

Streets shall comply with City of Richardson Comprehensive Zoning Ordinance, including, "No street may be designed as a dead end without the installation of a cul-de-sac having at least a 50-foot right-of-way radius and a 40-foot paved radius. No cul-de-sac street may exceed 500 feet in length as measured along the street centerline from the projected curb intersection to the farthest curb location."

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

LENGTH (FEET)	WIDTH (FEET)	TURNAROUNDS REQUIRED
0-150	24	None required
151-500	24	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.

Appendix D Section D103.5 is amended by amending 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 feet (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).
2. Gates shall be of the horizontal swing, horizontal slide, vertical lift or vertical pivot type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.
6. Methods of locking shall be submitted for approval by the fire code official.
7. Electric gate operators, where provided, shall be listed in accordance with UL 325.
8. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

Appendix D Section103.6 Marking is amended to read as follows:

D103.6 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. 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 code official.*

Appendix D Section D103.6.1 is deleted.

Appendix D Section D103.6.2 is deleted.

Appendix D Section D104.3 is amended 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.

Appendix D Section D105.3 is amended 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.

Appendix D Section D106.1is amended to read as follows:

D106.1 Multi-family residential projects. Multiple-family residential projects shall be equipped throughout with two separate and approved fire apparatus access roads.

{Delete exception}

Appendix D Section D106.3 is amended 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.

Appendix D Section D107.2 is amended 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.

Appendix L Section L101.1 is amended to read as follows:

Section L101.1 Scope. Fire fighter air replenishment systems (FARS) shall be provided in accordance with this appendix in new buildings when any of the following conditions occur:

1. Any new building 5 or more stories in height.
2. Any new building with 2 or more floors below grade.
3. Any new building 500,000 square feet or more in size.

Each stairwell shall have a supply riser. SCBA fill panels shall be located on odd numbered floors commencing at the first level in the primary stairwell and on even numbered floors commencing at level 2 in the remaining stairwells. Fill panels in buildings over 500,000 square feet shall be located adjacent to each standpipe connection.

Appendix L Section L104.13.1 is deleted.

Appendix L Section L104.14 is amended to add paragraph to read as follows:

Section L 104.14 External mobile air connection. CDP. An external mobile air connection shall be provided for fire department mobile air apparatus where required by Section L104.5 to supply the system with breathing air.

The external mobile air connection shall be located with approved separation from the Fire Department Connection (FDC) to allow functionality of both devices by first responders; shall be visible from and within 50 ft. of a fire apparatus access road along an unobstructed path; and shall be located in an approved signed, secured cabinet."

SECTION 2. That all provisions of the ordinances of the City of Richardson, Texas, in conflict with the provisions of this Ordinance be, and the same are hereby repealed, and all other provisions of the ordinances of the City of Richardson, Texas, not in conflict with the provisions of this Ordinance shall remain in full force and effect.

SECTION 3. That should any sentence, paragraph, subdivision, clause, phrase or section of this Ordinance be adjudicated or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this Ordinance as a whole, or any part or provision thereof other than the part so decided to be invalid, illegal or unconstitutional, and shall not affect the validity of the Code of Ordinances as a whole.

SECTION 4. That any offense committed before the effective date of this Ordinance is governed by the prior law and provisions of the Code of Ordinances, as amended, in effect when the offense was committed, and the former laws continued in effect for this purpose.

SECTION 5. That any person, firm or corporation violating any of the provisions or terms of this Ordinance shall be subject to the same penalty as provided for in the Code of Ordinances of the City of Richardson, as heretofore amended, and upon conviction shall be punished by a fine not to exceed the sum of Two Thousand Dollars ($2,000) for each offense; and each and every day such violation shall continue shall be deemed to constitute a separate offense.

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

DULY PASSED AND APPROVED by the City Council of the City of Richardson, Texas, on the 24th day of April 2023.

APPROVED:

MAYOR

CORRECTLY ENROLLED:

CITY SECRETARY

APPROVED AS TO FORM:

CITY ATTORNEY
(PGS:3-27-23:TM 134224)