An Ordinance of the City of Plano, Texas, repealing Ordinance No. 2016-3-5, codified as Article II, Fire Code, of Chapter 8 of the Code of Ordinances of the City; adopting the 2018 Edition of the International Fire Code, with certain revised additions, deletions and amendments as the Fire Code of the City of Plano; and providing a repealer clause, a severability clause, a savings clause, a penalty clause, a publication clause, and an effective date.

**WHEREAS**, on May 14, 2016, the City Council enacted Ordinance No. 2016-3-5 adopting the 2015 Edition of the International Fire Code with certain additions, deletions and amendments as the Fire Code of the City of Plano; and

WHEREAS, upon full review and consideration of all matters related and attendant thereto, the City Council is of the opinion that Ordinance No. 2016-3-5 should be repealed and the 2018 Edition of the International Fire Code, along with the revised local amendments thereto, should be adopted as the Fire Code for the City of Plano and that regulations and fees should be established thereunder.

### NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF PLANO, TEXAS, THAT:

Section I. Ordinance No. 2016-3-5 duly passed and approved by the City Council of the City of Plano on March 14, 2016, and codified as Article II, Fire Code, of Chapter 8 of the Code of Ordinances, is hereby repealed in its entirety.

**Section II.** The 2018 Edition of the International Fire Code with certain revised additions, deletions and amendments is hereby adopted as the Fire Code of the City of Plano and shall read in its entirety as follows:

#### "ARTICLE II. FIRE CODE

#### Penalty.

Any person, firm, or corporation violating any of the provisions or terms of this Article or the Code adopted herein shall be guilty of a misdemeanor and, upon conviction in the Municipal Court, shall be subject to a fine not to exceed TWO THOUSAND AND NO/100 (\$2000.00) DOLLARS for each offense, and each and every day any such violation shall continue shall be deemed to constitute a separate offense.

#### Section 8-17 Adoption of International Fire Code.

There is hereby adopted by the City Council of the City of Plano, Texas, for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion, that certain Code known as the 2018 Edition of the International Fire Code including Appendix B, E, F and L of the 2018 Edition of the International Fire Code published by the International Fire Code Institute and the International Conference of Building Officials, being particularly the 2018 Edition thereof and the whole thereof,

save and except such portions as are hereinafter deleted, modified, or amended by this Ordinance, of which code and standards copies have been and are now filed in the office of the City Secretary and the same are hereby adopted and incorporated as fully as if set out at length herein, and from the date on which this Ordinance shall take effect, the provisions thereof shall be controlling within the limits of the City of Plano.

#### **Section 101 Scope and General Requirements**

**Section 101.1 Title.** These regulations shall be known as the Fire Code of the City of Plano, hereinafter referred to as "this code."

#### **Section 102 Applicability**

Sec. 102.1; change #3 to read as follows:

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

Sec. 104 General Authority and Responsibilities.

Sec. 104 add new section 104.12 to read as follows:

Sec. 104.12 Fire prevention bureau personnel and police. The chief and members of the fire prevention bureau shall have the power to issue citations for violations of this code. When requested to do so by the fire chief, the chief of police is authorized to assign such available police officers as necessary to assist the fire department in enforcing the provisions of this code.

#### Sec. 105 Permits

Sec. 105.6.27 is amended to read as follows:

#### Sec. 105.6.27 LP-gas. An operational permit is required for:

1. Storage and use of LP-gas.

**Exception:** A permit is not required for individual containers with a 20 pound (9.0 Kg) water capacity or less serving occupancies in Group R-3.

2. Operation of cargo tankers that transport LP-gas.

#### **Section 110 Violations**

Sec. 110.4 is amended to read as follows:

**Sec. 110.4 Violations penalties.** Any person, firm, or corporation violating any of the provisions or terms of this Ordinance shall be guilty of a misdemeanor and, upon conviction, shall be subject to a fine not to exceed TWO THOUSAND AND NO/100 (\$2,000.00) DOLLARS for each offense, and each and every day any such violation shall continue shall be deemed to constitute a separate offense.

#### Section 112 Stop Work Order

Sec. 112.4 is amended to read as follows:

**Sec. 112.4 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 for a fine not to exceed TWO THOUSAND AND NO/100 (\$2,000.00) DOLLARS for each offense, and each and every day such violation shall continue shall be deemed to constitute a separate offense.

#### Sec. 202 General Definitions

Sec. 202; the following are amended to read as follows:

**ATRIUM.** An opening connecting three or more stories, other than enclosed *stairways*, elevators, hoist ways, escalators, plumbing, electrical, air-conditioning or other equipment, which is closed at the top and not defined as a mall. Stories, as used in this definition, do not include balconies within assembly groups or *mezzanines* that comply with Section 505 of the International Building Code.

#### HIGH-PILED COMBUSTIBLE STORAGE.

Sec. 202; add a second paragraph to the definition of "High-Piled Combustible Storage" to read as follows:

Any building exceeding 6,000 sq. ft. that has a clear height in excess of 12 feet, shall be considered to be high-piled storage and shall comply with the provisions of this section. When a specific product cannot be identified, a fire protection system shall be installed as for Class IV commodities, to the maximum pile height.

**HIGH-RISE BUILDING**. A building having floors used for human occupancy located more than 55 feet (16,764 mm) above the lowest level of fire department vehicle access.

**REPAIR GARAGE.** A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification, and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement, and other such minor repairs.

**STANDPIPES, TYPES OF. MANUAL DRY.** A dry standpipe system that does not have a permanent water supply attached to the system. Manual dry standpipe systems require water from a fire department pumper to be pumped into the system through the fire department connection in order to supply the system demand. The system must be supervised as specified in Section 905.9.

Sec. 202 is amended by the addition of the following:

**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 the utilization of fire service personnel shall be as normally calculated by the jurisdiction.

Section 307 Open Burning, Recreational Fire and Portable Outdoor Fireplaces.

Sec. 307.1.1 is amended to read as follows:

**Sec. 307.1.1 Prohibited Open Burning.** Open burning shall be prohibited within the City of Plano.

#### **Exceptions:**

- 1. Permits may be issued for ceremonial campfires not to exceed 3 feet in diameter and 2 feet in height, and located a minimum of 25 feet from any structure or property line.
- 2. Permits may be issued for warming fires when the following are met:
  - a. The fire is placed in a barrel not to exceed 55 gallons in size.
  - b. The barrel must have a screen secured to the top of the barrel.
  - c. The barrel must be located a minimum of 25 feet from any structure or property line.

Sec. 308 Open Flames.

Sec. 308.1.4 is amended to read as follows:

**308.1.4 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, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity] with an aggregate LP-gas capacity not to exceed 100 lbs. (5 containers).
- 2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity], with an aggregate LP-gas capacity not to exceed 40 lbs. (2 containers).

#### Section 308.1.6.2, Exception #3 is amended to read as follows:

#### **Exception:**

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

#### **Section 311 Vacant Premises**

Section 311.5 is amended to read as follows:

**Sec. 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 110 of this code relating to structural or interior hazards, shall be marked as required by Section 311.5.1 through 311.5.5.

#### Section 401 General

Sec. 401.3; add Section 401.334 to read as follows:

Sec. 401.3.4 False Alarms and Nuisance Alarms. False alarms, nuisance alarms, and unwanted alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner.

#### Section 501 General

Sec. 501.4 is amended to read as follows:

**Sec. 501.4 Timing of installation.** When fire apparatus access roads and 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 Fire Apparatus Access Roads.

#### Sec. 503.1.1 is amended by the addition of the following to the first paragraph:

Sec. 503.1.1 Building and Facilities. The 150 feet (150') shall be measured along a ten foot (10') wide unobstructed pathway around the external walls of the structure. The grade shall not exceed six (6) percent. The provision of this section notwithstanding, fire lanes may be required to be located within thirty feet (30') of a building if deemed to be reasonably necessary by the Fire Chief to enable proper protection of the building. A five (5) foot wide level pathway shall be provided unobstructed through all barriers. A continuous row of parking between the fire lane and the structure shall be considered a barrier.

Fire lane and access easements shall be provided to serve all buildings through parking areas, to service entrances of buildings, loading areas and trash collection areas, and other areas deemed necessary to be available to fire and emergency vehicles. The Fire Chief is authorized to designate additional requirements for fire lanes where the same is reasonably necessary so as to provide access for fire and rescue personnel.

Fire lanes provided during the platting process shall be so indicated on the plat as an easement. Where fire lanes are provided and a plat is not required, the limits of the fire lane shall be shown on a site plan and placed on permanent file with the Fire Marshal and City Planning Department.

No owner or person in charge of any premises served by a fire lane or access easement shall abandon, restrict or close any fire lane or easement without first securing from the City of Plano approval of an amended plat or other acceptable legal instrument showing the removal of the fire lane.

#### Sec. 503.1.2 is amended by the addition of the following to the first paragraph:

**Sec. 503.1.2 Additional Access**. All structures and subdivisions shall provide two points of access. The two points of access shall be a minimum of 140 feet apart. The maximum block length shall be 1200' and the maximum cul-de-sac length shall not exceed 600' in length as measured from the centerline of the intersection, street to the center point of the radius.

#### Sec. 503.2.1 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 (7,315 mm), except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4,267 mm).

Any such fire lane easement shall either connect both ends to a dedicated street or be provided with a turnaround having a minimum outer radius of 50 feet. If two or more interconnecting lanes are provided, interior radius for that connection shall be required in accordance with the following:

#### For 90 degree or greater turns only

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24' fire lane – minimum radius 20' 30' fire lane – minimum radius 10'
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For turns tighter than 90 degrees, American Association of State and Highway Transportation Officials (AASHTO) Geometric Design of Highways and Streets shall be utilized.

#### Sec 503.2.2 is amended to read as follows:

**Sec 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.

#### Sec. 503.2.3 Surface is amended to read as follows:

Sec. 503.2.3 Surface. Fire lanes shall be constructed of an asphalt or concrete surface capable of supporting the imposed loads of 80,000 pounds for fire apparatus and meeting the requirements of the City of Plano parking lot standards. Those portions of the fire lane within sixty feet (60') of the structure to be protected shall be constructed with 6-inch thick, 3000 psi concrete or 5-inch thick, 3600 psi concrete reinforced with No. 3 bars spaced 24 inches on centers both ways and with sub-grade to a density not less than 95 percent as determined by TSDHPT Test Method Tex-113. Portions of the fire lane constructed of asphalt shall be ninety-five (95) percent compaction with a 6-inch asphalt stabilized base and 2-inch type D hot mix asphalt concrete. (State Highway specification number 292.) Whenever forty percent (40%) of existing, non-conforming fire lanes are replaced within a twelve month period, the entire fire lane shall be replaced according to current standards.

All fire lanes shall be maintained and kept in a good state of repair at all times by the owner and the City of Plano shall not be responsible for the maintenance thereof. It shall further be the responsibility of the owner to insure that all fire lane markings required by Sec. 503.3 be kept so that they are easily distinguishable by the public.

Sec. 503.2 is amended by the deleting Section 503.2.5

**503.2.5 Dead ends.** Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with and *approved* area for turning around fire apparatus.

Sec. 503.2.6 is amended by the addition of the following:

**Sec. 503.2.6 Bridges and elevated surfaces.** All bridges and fire lane grades shall meet the City of Plano Engineering specifications.

Sec. 503.3 is amended to read as follows:

**Sec. 503.3 Marking.** Approved striping or, when allowed by the code official, signs, or both shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Signs and striping 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 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 foot 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 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. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

Sec. 503.4 is amended to read as follows:

**Sec. 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.

Sec. 503.6 is amended to read as follows:

**Sec. 503.6 Security gates.** Where security fencing is necessary, the owner shall provide gates or openings which may be secured. Gates when provided must open fully in either direction or be of a sliding or raised arm type. The main entry gates serving Group R & I occupancies shall be equipped with an approved automated entry system. All other entry points along the fire lane must be automated or Knox compatible as approved by the Fire Chief, to permit immediate access by fire personnel and equipment in the event of fire or emergency.

#### Section 505 Premises Identification.

Sec. 505.1 is amended to read as follows:

Sec. 505.1 Address Identification. Approved numerals of a minimum 6" height and of a color contrasting with the background designating the address shall be placed on all new and existing buildings or structures in such a position as to be plainly visible and legible from the street or road fronting the property and from all rear alleyways where said alleyways exist. Where buildings do not immediately front a street, approved 6 inch height building numerals or address and 3-inch height suite/apartment numerals of a color contrasting with the background of the building shall be placed on all new and existing buildings or structures. Numerals or addresses shall be posted on a minimum 20 inch by 30 inch background or border. Address numbers shall be Arabic numerals or alphabet letters. The minimum stroke width shall be 0.5 inches. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response.

**Exception 1.** R-3 Single Family occupancies shall have approved numerals of a minimum 4-inches 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.

Sec. 505. Is amended by the addition of the following:

**Sec. 505.3 Address Marking in Parking Garages.** An approved sign displaying the building name and address with a minimum 1 inch high letters and numerals on a contrasting background in new and existing parking garages. The signs shall be located in each elevator lobby and at the entrance to each stairwell.

Sec. 506 Key Boxes

Sec. 506.1 add new Section 506.1.3 to read as follows:

**Sec. 506.1.3 Knox Box approved locations.** A key box shall be provided at the main building entrance and at the entrances to each sprinkler riser room and pump room. An additional key box shall be provided at the main entrance of large facilities typically where the remote annunciator or fire alarm control panel is located.

#### **Section 507 Fire Protection Water Supplies**

Sec. 507.4 is amended to read as follows:

**Sec. 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.

#### Sec. 507.5.1 is amended to read as follows:

**Sec. 507.5.1 Where Required.** As properties develop, fire hydrants shall be located at all intersecting streets and at the maximum spacing indicated in Table 903.4.2. Distances between hydrants shall be measured along the route that fire hose is laid by a fire vehicle from hydrant to hydrant.

Maximum Distance Between Hydrants

OCCUPANCY	SPRINKLERED	NOT SPRINKLERED
Residential (1 & 2 Family)	600 feet	500 feet
Residential (Multi Family)	400 feet	300 feet
All Other	500 feet	300 feet

Table 903.4.2

- 1. PROTECTED PROPERTIES. Fire hydrants required to provide a supplemental water supply for automatic fire protection system shall be within 100 feet of the fire department connection for such system and shall have an isolation valve located between the connections to a looped main.
- 2. FIRE HYDRANT LOCATIONS. Fire hydrants shall be located 4 feet to 7 feet back of curb or fire lane and shall not be located in the bulb of a cul-de-sac.
- 3. *MINIMUM NUMBER OF FIRE HYDRANTS*. There shall be a minimum of two (2) fire hydrants serving each property within the prescribed distances listed above.

#### Sec. 509 Fire Protection and Utility Equipment Identification and Access

#### Sec 509; add new Section 509.1.2 to read as follows:

**Sec. 509.1.2 Sign Requirements.** Unless more stringent requirements apply, lettering for signs required by this section shall have a minimum height of 3/4 inch when located inside a building and 2 inches when located outside, or as approved by the *fire code official*. The letters shall be of a color that contrasts with the background.

Section 807 Decorative Materials other than Decorative Vegetation in New and Existing Buildings

Sections. 807.5.2.2 and 807.5.5.2 are amended by the addition of the following:

**Section 807.5.2.2 Artwork in corridors.** Artwork and teaching materials shall be limited on the walls of *corridors* to not more than 50 percent of the wall area.

**Section 807.5.5.2 Artwork in corridors.** Artwork and teaching materials shall be limited on the walls of *corridors* to not more than 50 percent of the wall area.

Section 901 General

Sec. 901.5; amended by the addition of the following to the first paragraph:

**Sec. 901.5 Installation acceptance testing.** All required tests shall be conducted by and at the expense of the owner or his representative. The Fire Department shall not be held responsible for any damages incurred in such test. Where it is required that the Fire Department witness any such test, such test shall be scheduled with a minimum of 48 hour notice to the Fire Chief or his representative.

Sec. 901.7 is amended to read as follows:

**Sec. 901.7 Systems out of service.** Where a required fire alarms system is out of service or in the event of an excessive number of activations, alarms or unwanted alarms, the fire department and the code official shall be notified immediately and, where required by the code official, the building shall either be evacuated or standby personnel shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service.

Where utilized, standby personnel shall be provided with at least 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.

#### Section 903 Automatic Sprinkler Systems

Sec. 903.1.1 is amended to read as follows:

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

Sec. 903.2 is amended to read as follows:

**Sec. 903.2 Where required.** Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machines spaces, and elevator hoist ways. Storage shall not be allowed within the elevator machine room.

#### Sec. 903.2 is amended by deleting the Exception:

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

Sec. 903.2.1.1, 903.2.1.3, 903.2.1.4, 903.2.3, 903.2.4 903.2.7, 903.2.9, 903.2.9.1, and 903.2.10 are amended to read as follows:

### Sec. 903.2.1.1 Group A-1. An automatic sprinkler system shall be provided for Group A-1 Occupancies where one of the following conditions exists:

- 1. The fire area exceeds 6,000 square feet  $(557.4\text{m}^2)$ .
- 2. The fire area has an occupant load of 300 or more.
- 3. The fire area is located on a floor other than the level of exit discharge.
- 4. The fire area contains a multi theater complex.

### Sec. 903.2.1.3 Group A-3. An automatic sprinkler system shall be for Group A-3 Occupancies where one of the following conditions exists:

- 1. The fire area exceeds 6,000 square feet (557.4m2).
- 2. The fire area has an occupant load of 300 or more.
- 3. The fire area is located on a floor other than the level of exit discharge.

### Sec. 903.2.1.4 Group A-4. An automatic sprinkler system shall be provided for Group A-4 Occupancies where one of the following conditions exists:

1. The fire area exceeds 6,000 square feet (557.4m<sup>2</sup>).

- 2. The fire area has an occupant load of 300 or more
- 3. The fire area is located on a floor other than the level of exit discharge.

### Sec. 903.2.3 Group E. An automatic sprinkler system shall be provided for Group E Occupancies where one of the following conditions exists:

- 1. Throughout all Group E fire areas greater than 6,000 square feet (557.4m²) in area;
- 2. Throughout every portion of educational building below the level of exit discharge.

Exception: An automatic sprinkler system is not required in any fire area or area below the level of exit discharge where every classroom throughout the building has at least one exterior exit door at ground level.

# Sec. 903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 Occupancy where one of the following conditions exists:

- 1. Where a Group F-1 fire area exceeds 6,000 square feet (557.4m<sup>2</sup>);
- 2. Where a Group F-1 fire area is located more than three stories above grade plane; or
- 3. Where combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230m<sup>2</sup>).
- 4. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m<sup>2</sup>).

## Sec. 903.2.7 Group M. An automatic sprinkler system shall be provided throughout all buildings containing a Group M Occupancy where one of the following conditions exists:

- 1. Where a Group M fire area exceeds 6,000 square feet (557.4m<sup>2</sup>);
- 2. Where a Group M fire area is located more than three stories above grade plane; or
- 3. Where the combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230m<sup>2</sup>).
- 4. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464m²)

Sec. 903.2.9 Group S-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 Occupancy where one of the following conditions exists:

- 1. A Group S-1 fire area exceeds 6,000 square feet (557.4m<sup>2</sup>);
- 2. A Group S-1 fire area is located more than three stories above grade plane; or
- 3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230m<sup>2</sup>).
- 4. A Group S-1 *fire area* used for the storage of commercial trucks or buses where the *fire area* exceeds 5,000 square feet (464m<sup>2</sup>).
- 5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2500 square feet (232m²).

Sec. 903.2.9.1 Repair Garages. An automatic sprinkler system shall be provided throughout all buildings used as Repair Garages where one of the following conditions exists:

- 1. Buildings two or more stories in height, including basements, with a fire area containing a repair garage exceeding 6,000 square feet (557.4m<sup>2</sup>);
- 2. One-story buildings with a fire area containing a repair garage exceeding 6,000 square feet (557.4m<sup>2</sup>);
- 3. Buildings with a repair garage servicing vehicles parked in the basement.
- 4. A Group S-1 *fire area* used for the repair of commercial trucks or buses where the *fire area* exceeds 5,000 square feet (464m<sup>2</sup>).

Sec. 903.2.9; add new Section 903.2.9.3 to read as follows:

Sec. 903.2.9.3 Self-service storage facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities. A screen shall be installed at eighteen (18) inches below the level of the sprinkler heads to restrict storage above that level. This screen shall be a mesh of not less than one (1) inch nor greater than six (6) inches in size. The screen and its supports shall be installed such that all elements are at least eighteen (18) inches below any sprinkler heads.

Sec. 903.2.10 Group S-2 enclosed parking garages. An automatic sprinkler

system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.6 of the *International Building Code* where either of the following conditions exists:

- 1. Where the *fire area* of the enclosed parking garage exceeds 12,000 square feet (1115 m<sup>2</sup>)
- 2. Where the enclosed parking garage is located beneath other groups. **Exception:** Enclosed parking garages located beneath Group R-3 occupancies.
- 3. Where two or more sides of the garage are not accessible by the Fire Department ladder truck.

#### Sec. 903.2.11.3 is amended to read as follows:

903.2.11.3 Buildings more than 35 feet in height. An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with Section 1509 of the *International Building Code*, that are located 35 feet (10,668 mm) or more above the lowest level of fire department vehicle access.

**Exception:** Open parking structures in compliance with Section 406.5 of the *International Building Code*.

Sec. 903.2.1; add new Sections 903.2.11.8, 903.2.11.8, 903.2.11.9, and 903.2.11.10 to read as follows:

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

**Sec. 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.

Sec. 903.2.11.9 Buildings Over 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings over 6,000 sq. ft. and greater, and in all existing buildings that are enlarged to be 6,000 square feet or greater, and in buildings greater than 6,000 square feet which are enlarged. For the purpose of this provision, fire walls, fire barriers, or horizontal assemblies shall not define separate buildings.

#### **Exceptions:**

- 1. Open parking garages in compliance with Section 406.5 of the *International Building Code*.
- 2. When of non-combustible construction, the area of awning extension or free-standing canopies, both sides, and not used for display or storage shall

- not be considered for requiring sprinkler protection for areas greater than 6,000 square feet but less than otherwise required in this code.
- 3. Where two or more sides of the garage are not accessible by the Fire Department ladder truck.

**Sec. 903.2.11.10 Expanded Tenant Spaces.** Fire sprinklers shall be installed in all tenant spaces where the total fire area exceeds 6,000 square feet. For the purpose of fire sprinklers, fire walls, fire barriers, or horizontal assemblies shall not be used to separate single tenant fire areas.

#### Sec. 903.3.1.1.1 is amended to read as follows:

**Sec. 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 any 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. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
- 3. Elevator machine rooms, machinery spaces, and hoist ways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.

Sec. 903.3.1.2 is amended by the addition of a  $3^{rd}$  paragraph to read as follows:

Sec 903.3.1.2 NFPA 13 R Sprinkler Systems. Where allowed in buildings of Group R, up to and including four stories in height, automatic sprinklers shall be installed throughout in accordance with NFPA 13R. Sprinkler systems installed in accordance with 13R shall include sprinkler protection in combustible attics of buildings two (2) or more stories in height.

Sec. 903.3.1; add new Section 903.3.1.4 to read as follows:

**Sec. 903.3.1.4 Installation.** Automatic sprinkler and standpipe systems shall be installed with the following:

- 1. A single underground supply from a looped water main and point for the Fire Department Connection (FDC) shall be provided for all buildings.
- 2. Fire department connections serving more than 500 GPM shall be provided with one 5-inch Storz connection and one 2-1/2 inch connection.
- 3. All inspectors' test, ball-drips, and main-drains shall be piped directly to the outside of the building.
- 4. At least one inspection test valve shall be located at the remote system area.
- 5. Fire pumps shall be equipped with a properly sized test header.
- 6. Underground piping shall have a 10-foot minimum separation from all other utilities and placed in a separate trench. Underground piping within 5 feet of the building may be combined with other utilities for entrance to the building.
- 7. Porches and balconies shall be sprinklered on all Group R-2 and R-3 occupancies.
- 8. A minimum of 4-feet of pipe between the check valve and inside wall of the Fire Department Connection.

#### Sec. 903.3.5 is amended to include a second paragraph to read as follows:

**Sec. 903.3.5 Water supplies.** Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every fire protection system shall be designed with a 10 psi safety factor.

### Sec. 903.4 is amended to include a second paragraph after the exceptions to read as follows:

**Sec. 903.4** Sprinkler system monitoring and alarms. 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 a minimum of 45 seconds and not more than 90 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.

#### Sec. 903.4.2 is amended to include a second paragraph to read as follows:

**Sec. 903.4.2 Alarms.** The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

#### Sec. 903.4.3 is amended to read as follows:

**903.4.3 Floor control valves.** Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor.

Section 905 Standpipe Systems

Sec. 905.2 is amended to read as follows:

**Sec. 905.2 Installation standards.** Standpipe system 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.

Sec. 905.3 Required Installations.

Sec. 905.3.2 is amended to read as follows:

Sec. 905.3.2 Group A; delete exceptions 1 and 2.

- 1. Open-air-seating spaces without enclosed spaces.
- 2. Class I automatic dry and semiautomatic dry standpipes or manual wet standpipes are allowed in buildings that are not high-rise buildings.

Sec. 905.3 is amended by deleting Section 905.3.4 including the Exception.

**Sec. 905.3.4 Stages.** Stages greater than 1,000 square feet (93 m<sup>2</sup>) in area shall be equipped with a Class III wet stand-pipe system with 1  $\frac{1}{2}$  -inch and 2  $\frac{1}{2}$  -inch (38mm and 64mm) hose connections on each side of the stage.

**Exception:** where the building or area is equipped throughout with an *automatic* sprinkler system, a 1 ½ -inch (38mm) hose connection shall be installed in accordance with NFPA 13 or in accordance with NFPA 14 for Class II or III standpipes.

Sec 905.3 add new Section 905.3.9 to read as follows:

**Sec. 905.3.9 Travel Distance.** Class I standpipes shall also be required on all occupancies in which the distance from accessible points for Fire Department ingress to any point in the structure exceeds two hundred fifty feet (250') along the route that a fire hose is laid as measured from the fire lane.

Sec. 905.4, item 5 is amended to read as follows:

Sec. 905.4 Location of Class I standpipe hose connections.

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located either on the roof or at the highest landing of stairways with stair access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

Sec. 905.4 is amended to by the addition of item 7 as follows:

Sec. 905.4 Location of Class I standpipe hose connections.

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

Sec. 905; is amended by deleting Section 905.5.

Sec. 905; is amended by deleting Section 905.6

Sec. 905.9 is amended to add a second paragraph after the exceptions to read as follows:

**Sec. 905.9 Valve Supervision.** 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 a minimum of 45 seconds and not more than 90 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.

Sec. 905.11; is amended to read as follows:

**Sec. 905.11 Locking Standpipe Outlet Caps.** Locking standpipe caps are on the outlets of dry standpipe connections where the responding fire department carries appropriate key wrenches for removal that are compatible with locking FDC connection caps. Locking caps are required on all new systems and existing systems where caps are missing.

**Section 907 Fire Alarm and Detection Systems** 

Sec. 907.1.1 is amended by adding the following sentence:

**Sec. 907.1.1 Construction documents.** Plans for fire alarm systems shall be in accordance with Plano Fire Department Fire Alarm Submittal Guidelines.

Sec. 907.1; add new Section 907.1.4 to read as follows:

**Sec. 907.1.4 Design Standards.** All alarm systems new or replacement shall be addressable. Alarm systems serving more than 20 smoke detectors shall be analog addressable.

**Exception:** Existing systems need not comply unless the total building remodel or expansion initiated after January 1, 1998, as adopted, exceeds 30% of the building. When cumulative building remodel or expansion exceeds 50% of the building must comply within 18 months of permit application.

#### Sec. 907.2.1 is amended to read as follows:

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

**Exception:** 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 footcandle (11 lux) at the walking surface level, and
- 2. Stop any conflicting or confusing sounds and visual distractions.

#### Sec. 907.2.3 is amended to read as follows, Exceptions to remain:

**Sec. 907.2.3 Group E.** A manual alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When *automatic sprinkler systems* or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall by installed in Group E day care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems. Where automatic fire sprinklers are not provided, a full-coverage smoke detection system shall be provided in all Group E occupancies.

#### Sec. 907.2.3, Exception 1 is amended to read as follows:

1. A manual fire alarm system is not required in Group E educational and day care occupancies with an occupant load of less than 50 when provided with an approved automatic sprinkler system.

Sec. 907.2.3; add new Section 907.2.3.1 to read as follows:

**Sec. 907.2.3.1 In-Home Daycare.** Residential In-Home daycare with not more than 12 children shall use interconnected single station detectors in all habitable rooms.

Sec. 907.2.6; add new Section 907.2.6.4 to read as follows:

**Sec. 907.2.6.4 Group I-4 Occupancies.** An approved smoke detection system shall be installed in Group I-4 occupancies. Where automatic fire sprinklers are not provided, a full-coverage smoke detection system shall be provided in all Group I-4 occupancies.

See Sec. 902-2-12: High-rise Buildings

Sec. 907.2.12, exception 3 is amended to read as follows:

2. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*, when used for open air seating; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants and similarly enclosed areas.

Sec. 907.4.2: Manual Fire Alarm Boxes

Sec. 907.4.2; add new Section 907.4.2.7 to read as follows:

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

Sec. 907.5.2; add new Section 907.5.2.4 to read as follows:

Sec. 907.5.2.4 I-2 and Group B Occupancies

Occupant notification systems are not required where private mode fire alarm systems are needed in critical care areas of I-2 and Group B Ambulatory Occupancies. A Chime sound shall be used as the audible notification at the constantly attended location and public areas where audible notification is required.

A visible alarm notification appliance installed in a nurses control station or other continuously attended staff location shall be provided as an acceptable alternative to the installation of audible alarm notification appliances throughout the occupancy.

In areas where private mode fire alarm system is being installed, audible alarm notification appliances are not required in critical care areas of Group I-2 and Group B-Ambulatory Occupancies.

Visible alarm notification appliances are not required in critical care areas of Group I-2 and Group B-Ambulatory Occupancies.

The private mode area and public mode area of the occupancy **shall be identified on the plans** for review.

Sec. 907.6.1; add new Section 907.6.1.1 to read as follows:

Sec. 907.6.1.1 Wiring. All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an signaling line 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 of separation horizontal and one foot vertical between supply and return circuit conductors. Notification appliance circuits (NAC) may be installed as Class B circuits.

Sec. 907.6.3; add new Sections 907.6.3.2 and 907.6.3.3 to read as follows:

**Sec. 907.6.3.2 Communication Requirements.** All alarm systems, new or replacement, shall transmit alarm, supervisory, and trouble signals descriptively to the approved central station, remote supervisory station or proprietary supervising station as defined in NFPA 72, with the device designation and location of addressable device identification. Alarms shall not be permitted to be transmitted as a General Alarm or Zone condition.

**Sec. 907.6.3.3 Flow detectors and electronic monitoring**. Sprinkler and standpipe system water flow detectors shall be provided for each floor zone to the sprinkler system and shall cause an alarm upon detection of water flow for a minimum of 45 seconds and not more than 90 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a trouble signal at the central station upon tampering.

Section 909 Smoke Control Systems.

Section 910 Smoke and Heat Removal

Sec. 910.2; add new Section 910.2.3 to read as follows:

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

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394m²) in single floor area.

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

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

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

#### Sec. 910.3 is amended as follows:

**Sec 910.3.1 is amended by the addition of the following:** Gravity operated drop out vents are prohibited.

#### Sec 910.3.2.1 is amended by the addition of the following to the first paragraph:

**Section 910.3.2.1 Sprinklered Buildings.** Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically. The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100°F (38°C) greater than the temperature rating of the sprinklers installed.

#### **Section 912.2 Fire Department Connections**

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

#### Sec. 912.4.1 is amended to read as follows:

**Sec. 912.4.1 Locking Fire Department Connection Caps.** All new fire department connections and existing where caps are missing shall be protected by Knox locking caps.

#### **Section 913 Fire Pumps**

Sec. 913.1 is amended to include the following:

**Sec. 913.2.1: Protection of Fire Pump Room.** When located on the ground level, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.

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

#### Sec. 913.4 is amended to read as follows:

**Sec. 913.4 Valve Supervision.** Where provided, the fire pump suction, discharge and bypass valves, and the isolation valves on the backflow prevention devices or assembly shall be supervised open by a central-station, proprietary, or remote-station signaling service.

The fire-pump system shall also be supervised for "loss of power", and "phase reversal" on supervisory circuits, and "pump running" as an alarm condition and shall report individually to the monitoring station.

### Section 914 Fire Protection Based on Special Detailed Requirements of Use and Occupancy

#### **Section 1004 Occupant Load**

Sec. 1004.1.2 is amended by deletion of the exception as follows:

Sec. 1004.1.2 Areas without Fixed Seating.

Sec 1004.1.2 Areas without Fixed Seating.

**Exception:** Where approved by the building official, the actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by calculation shall be permitted to be used in the determination of the design occupant load.

#### Section 1010 Doors, Gates, and Turnstiles

#### Section 1010.1.9.5; Exceptions 3 and 4 are amended to read as follows:

#### **Exceptions:**

- 3. Where a pair of doors serves an *occupant load* of less than 50 persons in a Group B, F, M or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.
- 4. Where a pair of doors serves a Group A, B, F, M, or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf proved such inactive leaf is not needed to meet egress width requirements and the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.

#### Section 1010.1.9.10; is amended to read as follows:

**1008.1.9.10 Electromagnetically locked egress doors.** Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, <u>I-1, I-2</u>, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, <u>I-1, I-2</u>, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with *listed* hardware that incorporates a built-in switch and meet the requirements below:

- 1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
- 2. The listed hardware is capable of being operated with one hand.
- 3. Operation of the *listed* hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
- 4. Loss of power to the listed hardware automatically unlocks the door.
- 5. Where panic or *fire exit hardware* is required by Section 1010.1.10, operation of the *listed* panic or *fire exit hardware* also releases the electromagnetic lock.

#### **Section 1016 Exit Access**

Sec. 1016.2; add new section 1016.2.2 to read as follows:

**Sec. 1016.2.2 Group F-1 and S-1 Increase.** The maximum exit access travel distance shall be 400 feet (122 m) in Group F-1 or S-1 occupancies where all of the following are met:

- 1. The portion of the building classified as Group F-1 or S-1 is limited to one story in height;
- 2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm); and

3. The building is equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1.

#### Section 1020 Corridors

Sec. 1020.1 is amended by the addition of Exception 6 to read as follows:

#### Sec. 1020.1 Construction.

6. In Group B office buildings, corridor walls and ceilings need not be of fire-resistive construction within office spaces of a single tenant when the space is equipped with an approved automatic smoke-detection system within the corridor. The smoke-detection system shall be connected to the building's fire alarm system where such a system is provided.

#### Section 1023 Interior Exit Stairways and Ramps

Sec. 1023.11 is amended to read as follows:

Sec. 1023.11 Smoke proof enclosures. In buildings required to comply with Section 403.5.4, 405.7.2 or 412.2.2.1 of the IBC, each of the exits of a building that serves stores where any floor surface is located more than 55 feet (16,764 mm) above the lowest level of fire department vehicle access or more than 30 feet (9144 mm) below the level of exit discharge service such floor levels shall be a smoke-proof enclosure or pressurized stairway in accordance with Section 909.20 of the International Building Code.

#### **Section 1030 Emergency Escape and Rescue**

Sec. 1030.1 is amended to read as follows:

**Sec. 1030.1 General.** In addition to the *means of egress* required by this chapter, provisions shall be made for *emergency escape and rescue openings* in Group R and I-1 occupancies. *Basements* and sleeping rooms below the fourth *store above grade plane* shall have at least one exterior *emergency escape and rescue opening* in accordance with this section. Where *basements* contain one or more sleeping rooms, *emergency escape and rescue openings* shall be required in each sleeping room, but shall not be required in adjoining areas of the *basement*. Such openings shall open directly into a *public way* or to a *yard or court* that opens to a *public way*.

#### **Exceptions:**

- 1. *Basements* with a ceiling height of less than 80 inches (2032 mm) shall not be required to have *emergency escape and rescue openings*.
- 2. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly

- into a *public way* or to a *yard, court* or exterior exit balcony that opens to a *public way*.
- 3. *Basements* without habitable spaces and having no more than 200 square feet (18.6 m<sup>2</sup>) in floor area shall not be required to have *emergency escape and rescue openings*.
- 4. In other than Group R-3 occupancies, buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

#### Section 1031 Maintenance of the Means of Egress

Section 1031.2 is amended to read as follows:

**Section 1031.2 Reliability.** Required *exit accesses, exits, and exit* discharges shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency. An *exit or exit passageway* shall not be used for any purpose that interferes with a means of egress.

#### **Section 1103 Fire Safety Requirement for Existing Buildings**

Sec. 1103; add new Sections 1103.5.5 and 1103.5.6 to read as follows:

**Sec. 1103.5.5 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.

Sec. 1103.5.6 Existing R-1, 2, 3, and 4 Occupancies: In R-1, 2, 3, and 4 occupancies where a fire has occurred and displaces one or more occupants, the affected building shall be fire-sprinkled prior to re-occupancy of the unit/building.

**Sec. 1103.7.7 Fire Alarm System Design Standards.** All alarm systems new or replacement shall be addressable. Alarm systems serving more than 20 smoke detectors shall be analog addressable.

**Exception:** Existing systems need not comply unless the total building remodel or expansion initiated after January 1, 1998, as adopted, exceeds 30% of the building. When cumulative building remodel or expansion exceeds 50% of the building must comply within 18 months of permit application.

#### Section 1201 General

#### Section 1201 General is amended by the addition of the following.

Section 1201.4 New and existing Energy Systems including emergency and standby power systems, solar photovoltaic power systems, stationary fuel cell power systems, Electrical energy storage systems, shall have a remote power shut down box. The location of the remote power shut down box shall be in area approved by the fire department. The box shall only be accessible by the fire department and shall be keyed to the fire departments Key Box as outlined in section 506 on the International Fire Code.

#### **Section 3310 Assess for Fire Fighting**

#### Sec. 3310.1; is amended to read as follows:

**Sec. 3310.1 Required access.** When fire apparatus access roads are required to be installed for any structure or development, they shall be approved and installed prior to the time of which construction has progressed beyond completion of the foundation of any structure.

#### Section 5601 General

Sec. 5601.1.3; is amended to read as follows:

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

#### **Exceptions:**

- 1. Only when approved for fireworks displays, storage and handling of fireworks as provided in Section 5604 and 5608.
- 2. The use of fireworks for approved display as permitted in Section 5608.

The presence or use of fireworks within the jurisdiction of the City of Plano in violation of this ordinance is hereby declared to be a common and public nuisance. The restrictions of this Section shall be applicable and in force throughout the territory of the City of Plano, Texas, and extending for a distance outside the City limits for a total of 5,000 feet; provided that this Section shall not be in effect within any portion of such 5,000 feet area which is contained within the territory of any other municipal corporation.

Sec. 5601.3 is amended to read as follows:

**Sec. 5601.3 Prohibited explosives.** Permits shall not be issued or renewed for possession, manufacture, storage, handling, sale or use of explosives within the city limits of Plano.

Section 5608 Fireworks Display

Sec. 5608; add new Section 5608.11 to read as follows:

Sec. 5608.11 is amended by the addition of the following section:

**Sec. 5608.11** *Marking of shells.* Each aerial shell shall have printed directly on its outer casing the following minimum warning 1/8 inch high letters which contrast to the background:

# WARNING EXPLOSIVES CLASS "C" FIRE WORKS DO NOT HANDLE – CALL "911"

Sec. 5608; add new Section 5608.12 to read as follows:

**Sec. 5608.12 Ignition.** Aerial shells shall be ignited by lighting the tips of fuses by an electrical ignition source except when manual ignition is approved by the Fire Chief. Operators shall not place any part of their bodies over the throat of the mortar.

#### **Section 5703 General Requirements**

Sec. 5703.6 is amended to add the following sentence:

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

#### **Section 5704 Storage**

Sec. 5704.2.7; is amended by the addition of the following:

Secondary containment shall be provided for all Above and Underground Storage Tanks (UST) and product lines in the form of double wall tanks and piping. Alternate methods of secondary containment may be used if approved by the Chief.

#### Sec. 5704.2.9.6.1 is amended to read as follows:

Sec. 5704.2.9.6.1 Location Where Above-Ground Tanks are Prohibited. The storage of flammable or combustible liquids in outside above ground tanks is prohibited within each and every zoning district within the City of Plano with the exception of those districts which are zoned for light industrial zoning use. Installation of above ground tanks in other than light industrial zoning districts shall be permitted at the discretion of the Fire Chief following his review of the proposed installation location, and the fire protection for the storage area. Tanks shall not be located within one hundred feet (100') of the property line of any Group E, I or R occupancies.

#### 5704.2.11.4; is amended to read as follows:

**Sec 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.

#### Sec. 5704.2.11.4.2; is amended to read as follows:

**Sec. 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.

#### Sec. 5704.2.11.4 is amended by the addition of the following:

Sec. 5704.2.11.4.3 Observation Wells. Approved sampling tubes of a minimum 6 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 sump at the corners of the excavation with a minimum of 4 sumps. 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 5706 Special Operations**

Secs. 5706.5.4.5 and 5706.5.4.5.1 through 5706.5.4.5.3 are amended to read as follows:

Sec. 5706.5.4.5 Commercial, industrial, governmental or manufacturing. Dispensing of Class II and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided such dispensing operations are conducted in accordance with Sections 5706.5.4.5.1 through 5706.5.4.5.3.

#### Section 5706.5.4.5.1 Site requirements.

- 1. Dispensing may occur at sites that have been permitted to conduct mobile fueling.
- 2. A detailed site plan shall be submitted with each application for a permit. The site plan must indicate:
  - a) All buildings, structures, and appurtenances on site and their use or function;
  - b) All uses adjacent to the property lines of the site;
  - c) The locations of all storm drain openings, adjacent waterways or wetlands;
  - d) Information regarding slope, natural drainage, curbing, impounding and how a spill will be retained upon the site property; and,
  - e) The scale of the site plan.
- 3. The Code Official is authorized to impose limits upon the times and/or days during which mobile fueling operations are allowed to take place, and specific locations on a site where fueling is permitted.
- 4. Mobile fueling operations shall be conducted in areas not generally accessible to the public. Mobile fueling shall not take place with 15 feet (4.572 m) of buildings, property lines, or combustible storage.

#### Sec. 5706.5.4.5.2 Refueling Operator Requirements.

- 1. The owner of a mobile fueling operation shall provide to the jurisdiction a written response plan which demonstrates readiness to respond to a fuel spill, carry out appropriate mitigation measures, and to indicate its process to properly dispose of contaminated materials when circumstances require.
- 2. The tank vehicle shall comply with the requirements of NFPA 385 and Local, State and Federal requirements. The tank vehicle's specific functions shall include that of supplying fuel to motor vehicle fuel tanks. The vehicle and all its equipment shall be maintained in good repair.
- 3. Signs prohibiting smoking or open flames within 25 feet (7.62 m) of the tank vehicle or the point of fueling shall be prominently posted on 3 sides of the vehicle including the back and both sides.
- 4. A fire extinguisher with a minimum rating of 40:BC shall be provided on the vehicle with signage clearly indicating its location.
- 5. The dispensing nozzles and hoses shall be of an approved and listed type.

- 6. The dispensing hose shall not be extended from the reel more than 100 feet (30.48 m) in length.
- 7. Absorbent materials, non-water absorbent pads, a 10 foot (3.048 m) long containment boom, and approved container with lid, and a non-metallic shovel shall be provided to mitigate a minimum 5-gallon fuel spill.
- 8. Tanker vehicles shall be equipped with a fuel limit switch such as a count-back switch, limiting the amount of a single fueling operation to a maximum of 500 gallons (1,893 L) between re-settings of the limit switch.

**Exception:** Tankers utilizing remote emergency shut-off device capability where the operator constantly carries the shut-off device which, when activated, immediately causes flow of fuel from the tanker to cease.

- 9. Persons responsible for dispensing operations shall be trained in the appropriate mitigating actions in the event of fire, leak, or spill. Training records shall be maintained by the dispensing company and shall be made available to the Code Official upon request.
- 10. Operators of tank vehicles used for mobile fueling operations shall have in their possession at all times an emergency communications device to notify the proper authorities in the event of an emergency.

#### Sec. 5706.5.4.5.3 Operational Requirements.

- 1. The tank vehicle dispensing equipment shall be constantly attended and operated only by designated personnel who are trained to handle and dispense motor fuels.
- 2. Prior to beginning dispensing operations, precautions shall be taken to assure ignition sources are not present.
- 3. The engines of vehicles being fueled shall be shut off during dispensing operations.
- 4. Night time fueling operations shall only take place in adequately lighted areas.
- 5. The tank vehicle shall be positioned with respect to vehicles being fueled so as to preclude traffic from driving over the delivery hose and between the tank vehicle and the motor vehicle being fueled.
- 6. During fueling operations, tank vehicle brakes shall be set, chock blocks shall be in place and warning lights shall be in operation.
- 7. Motor vehicle fuel tanks shall not be topped off.

- 8. The dispensing hose shall be properly placed on an approved reel or in an approved compartment prior to moving the tank vehicle.
- 9. The Code Official and other appropriate authorities shall be notified when a reportable spill or unauthorized discharge occurs.

#### **Section 5804 Storage**

Sec. 5804; is amended by the addition of the following:

**Sec. 5804 Maximum capacity within established limits.** Tanks shall not be located within one hundred feet (100') of the property line of any Group A, E, I, or R occupancies.

#### **Section 6103 Installation of Equipment**

Sec. 6103.2.1; add new Section 6103.2.1.8 to read as follows:

Sec. 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 pounds (9.0 kg) water capacity. Aggregate capacity shall not exceed 60 pounds (27.2 kg) water capacity. Each device shall be separated from other containers by not less than 20 feet.

#### **Section 6104 Location of LP-Gas Containers**

Sec. 6104.2 is amended to read as follows:

**Sec. 6104.2 Maximum capacity within established limits.** The manufacturing of LP-Gas shall be prohibited in each and every zoning district of the City of Plano. The storage and use of LP-Gas shall be allowed only in industrial zoned districts of the City of Plano and as allowed in specific uses outlined in Section 6103 and 6104. Storage shall not be located within one hundred feet (100') of the property line of E, A, I, or R occupancies, except those permitted in single family districts in accordance with 6104.3.

Sec. 6104.3; add new Section 6104.3.3 to read as follows:

**Sec. 6104.3.3 Spas, pool heaters and other listed devices.** LP-Gas containers are allowed to be used to supply spa and pool heaters or other listed devices. Such container shall not exceed 500 gallon water capacity per lot for above ground containers or 1,000 gallon water capacity per lot for underground containers and shall be off loaded wholly on the property where the tank is located. See Table 6104.3 for location of containers.

#### Appendix L Requirements for Fire Fighter Air Replenishment Systems

Sec. L101; add new Section L101.2 to read as follows:

**Sec. L101.2 Required Location.** In new buildings, fill stations shall be required 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 stations shall be located on odd numbered floors in the primary stairwell and on even numbered stairs in the secondary stairwells. The primary stairwell will the stair located closest to the main entrance

#### Section 8-18 Authorizing suits for injunctive relief.

Any person, firm, or corporation violating any of the provisions of this article or the International Fire Code as adopted is subject to a civil lawsuit, including injunctive relief, in addition to and exclusive of any other available legal remedies."

- <u>Section III.</u> All provisions of the Code of Ordinances of the City of Plano in conflict with the provisions of this Ordinance are hereby repealed, and all other provisions of the Code of Ordinances of the City of Plano not in conflict with the provisions of this Ordinance shall remain in full force and effect.
- Section IV. It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable, and if any phrase, clause, sentence, or section of this Ordinance shall be declared unconstitutional or invalid by any court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any other remaining phrase, clause, sentence, paragraph or section of this Ordinance.
- Section V. The repeal of any Ordinance or part of Ordinances effectuated by the enactment of this Ordinance shall not be construed as abandoning any action now pending under or by virtue of such Ordinance or as discontinuing, abating, modifying or altering any penalty accruing or to accrue, or as affecting any rights of the municipality under any section or provisions at the time of passage of this Ordinance.
- <u>Section VI.</u> Any violation of the provisions or terms of this Ordinance by any person, firm or corporation shall be a misdemeanor offense and shall be subject to a fine in accordance with Section 1-4(a) of the City Code of Ordinances for each offense. Every day a violation continues shall constitute a separate offense.
- **Section VII**. This Ordinance shall become effective immediately upon its passage and publication as required by law.

DULY PASSED AND APPROVED on this 26th day of Nevember, 2018.

Harry LaRosiliere, MAYOR

ATTEST:

Lisa C. Henderson, CITY SECRETARY

APPROVED AS TO FORM:

Paige Mims, CITY ATTORNEY