

**MURPHY FIRE -RESCUE
LOCAL AMENDMENTS
INTERNATIONAL FIRE CODE, 2021 EDITION**

Section 101 of the International Fire Code adopted in section 8.02.002 is amended as follows:

101.1 Title. These regulations shall be known as the Fire Code of the City of Murphy, hereinafter referred to as “this code.”

Section 102 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 102.1; change #3 to read as follows:

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

Section 102.7; add sentence to the end of the paragraph to read as follows:

102.7 Referenced codes and standards. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC Electrical Code shall mean the electrical code as adopted.

Section 103 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 103.1; change to read as follows:

103.1 Creation of agency. The department of fire prevention is hereby created and the official in charge thereof shall be known as the fire code official (otherwise and herein interchangeable with “fire marshal”). The function of the department shall be the implementation, administration, and enforcement of the provisions of this code.

Section 105.6 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 105.6.25; add to read as follows:

105.6.25 Electronic access control systems. Construction permits are required for the installation

or modification of an electronic access control system, as specified in Chapter 10. A separate construction permit is required for the installation or modification of a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

Section 107 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 107.3; remove entirely.

Section 108 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 108.1; add Sections 108.1.2 as follows:

108.1.2 Inspection fees. The fire marshal or his designated representative shall inspect all buildings, premises or portions thereof as often as may be necessary, in accordance with Section 103.3 of the International Fire Code as amended. An initial inspection and one reinspection shall be made free of charge. If the fire marshal or his designee is required to make follow-up inspections after the initial inspection and reinspection to determine whether a violation or violations observed during the previous inspections have been corrected, a fee shall be charged. The occupant, lessee, or person making use of the building or premises shall pay the fee or fees within 30 days of being billed as a condition to continued lawful occupancy of the building or premises. If the fee is not paid within 30 days, the certificate of occupancy shall be considered invalid. All occupancies within the city shall have a valid certificate of occupancy issued by the city.

Section 112 of the International Fire Code adopted in section 8.02.002 is amended as follows:

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 Class C Offense, punishable by a fine of not more than \$2,000 dollars or by imprisonment not exceeding 180 days, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section 112 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 113.4 Amend as follows:

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 less than \$1.00 dollar or more than \$2,000 dollars.

Section 202 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 202; amend and/or add definitions as follows:

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

- Dialysis centers
- Sedation procedures
- Sedation dentistry

- Surgery centers
- Colonic centers
- Psychiatric centers

ADDRESSABLE FIRE DETECTION SYSTEM. Any system capable of providing identification of each individual alarm-initiating device. The identification shall be in plain English and as descriptive as possible to specifically identify the location of the device in alarm. The system shall have the capability of alarm verification.

ANALOG INTELLIGENT ADDRESSABLE FIRE DETECTION SYSTEM. Any system capable of calculating a change in value by directly measurable quantities (voltage, resistance, etc.) at the sensing point. The physical analog may be conducted at the sensing point or at the main control panel. The system shall be capable of compensating for long-term changes in sensor response while maintaining a constant sensitivity. The compensation shall have a present point at which a detector maintenance signal shall be transmitted to the control panel. The sensor shall remain capable of detecting and transmitting an alarm while in maintenance alert.

FIREWORKS. Any combination or device for the purposes of producing a visible or 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 1.3 G fireworks or 1.4G fireworks. ...

{Remainder of text unchanged}

FIRE MARSHAL. The fire code official or other designated authority charged with the administration and enforcement of this code, or duly authorized representative.

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.

HIGH-PILED COMBUSTIBLE STORAGE; add second paragraph:

A building exceeding 6,000 square feet that has a clear height in excess of 12 feet, making it possible to be used for storage 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. The *fire marshal* has the authority to approve other means to satisfy this requirement.

HIGH-RISE BUILDING. A building having any 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.

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.

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

- Replacing one single board or fire alarm control unit component with a newer model
- Installing a new fire alarm control unit in addition to or in place of an existing one
- Conversion from a horn system to an emergency voice/alarm communication system
- Conversion from a conventional system to one that utilizes addressable or analogue devices.
- The following are not considered an upgrade or replacement:
 - Firmware updates
 - Software updates
 - Replacing boards of the same model with chips utilizing the same or newer firmware

Section 307 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 307.2; change to read as follows:

307.2 Permit Required. A permit shall be obtained from the *fire code official* in accordance with Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or open burning. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled. Permits require a minimum three business day notice and shall be in accordance with the fee schedule in Appendix A of the City of Murphy Code or Ordinances.

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

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

Exceptions:

1. Permits may be issued for recreational fires not to exceed three foot in diameter and two feet in height and are located a minimum of 25 feet from any structure or property line or other combustible material.

Section 307 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 307.4; change to read as follows:

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

Exceptions: {No change.}

Section 307.4.1, remove entirely.

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

Exceptions:

2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system.

Section 307.4.4 and 5; add section 307.4.4 and 307.4.5 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 and International Building Code.

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

307.5 Attendance. *Open burning, recreational fires* and use of portable outdoor fireplaces shall be constantly attended until the fire is extinguished. A minimum of 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 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 308.1; change to read as follows:

Section 308.1.6.2, Exception #3; change to read as follows:

Exceptions:

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

Section 308.1.6.3; change to read as follows:

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

Section 311 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 311.5; change to read as follows:

Section 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, shall be marked as required by Section 311.5.1 through 311.5.5.

Section 401 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 401.3.2; change to read as follows:

401.3.2 Alarms activations. Upon activation of a fire alarm signal, employees, staff, or patrons shall immediately notify the fire department. All persons in the building shall immediately evacuate the building.

Exception:

1. When a facility has an emergency plan approved by the fire official that calls for certain personnel remain in the facility, they may do so as provided in the plans, unless directed otherwise by a member of the fire department.

Section 403 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 403.4; change 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 403.4.1 through 403.4.3.

Section 404 of the International Fire Code adopted in section 8.02.002 is amended as follows:

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

4.10. Fire extinguishing system controls.

Section 405 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 405.5: change to read as follows:

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

Section 501 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 501.3; add sentence to the end of the paragraph as follows:

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 prevention division.

Section 501.4; change to read as follows:

501.4 Timing of Installation. When fire apparatus access roads or a water supply for fire protection 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 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 503.1.1; add sentence to read as follows:

Except for one- or two-family dwellings, the path of measurement shall be along a minimum of ten feet (10') wide unobstructed pathway around the external walls of the structure, unless otherwise approved by the fire marshal.

The provisions of this section notwithstanding, fire lanes may be required to be located within 30 feet (30') of a building if deemed to be reasonably necessary by the fire marshal to enable proper protection of the building.

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, fire department sprinkler and standpipe connections, and other areas deemed necessary to be available to fire and emergency vehicles. The fire marshal is authorized to designate additional requirements for fire lanes where the same is reasonably necessary to provide access for fire and rescue personnel.

Section 503.1.2; change to read as follows:

503.1.2 Additional access. All structures and subdivisions shall provide a minimum of two points of access. The two points of access shall be a minimum of 140 feet apart unless otherwise approved by the fire code official.

Section 503.2.1; change to read as follows:

Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than ~~20~~ 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).

Exception:

1. When approved by the Fire Code Official, vertical clearance may be reduced; provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance.

Section 503.2.2; change 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 or where necessary to meet the public safety objectives of the jurisdiction.

Section 503.2.3; change Section 503.2.3 to read as follows:

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads 80,000 lbs. for fire apparatus and shall be surfaced to provide all-weather driving capabilities.

Fire lanes shall be constructed of a concrete surface capable of supporting the imposed loads of fire apparatus. Those portions of the fire lane for the structure to be protected shall be constructed with eight-inch thick, 4,000 psi concrete reinforced with no. 3 bars spaced 18- inches on center both ways on 6-inch lime subgrade compacted to a minimum of 98% standard proctor density at plus or minus 3% optimum moisture content.

Section 503.2.4; change to read as follows:

Turning radius. 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:

1. 24-foot fire lane – minimum radius 20 feet.
2. 26-foot fire lane – minimum radius 20 feet.
3. 30-foot fire lane – minimum radius 10 feet.

For turns tighter than 90-degrees, American Association of State and Highway Transportation Officials (AASHTO) Geometric Design of Highways and Streets shall be utilized.

Section 503.2.5; change to read as follows:

503.2.5 Dead-ends. Fire lane easements shall either connect both ends to a public street or be provided with a cul-de-sac (turnaround) that shall not exceed 600 feet in length as measured from the centerline of the intersecting street to the center point of the bulb of the cul-de-sac having a minimum 50-foot radius.

Section 503.2.7; change to read as follows:

503.2.7 Grade. The grade of the fire apparatus access road shall not exceed six percent (6%). All bridges and fire lane grades shall meet the City of Murphy engineering specifications.

Sections 503.2.9, 503.2.10 and 503.2.11; add sections as follows:

503.2.9 Maintenance. All fire lanes shall always be maintained and kept in a good state of repair by the owner and the city shall not be responsible for the maintenance thereof. It shall further be the responsibility of the owner to ensure that all fire lane markings required by section 503.3 be kept so that they are easily distinguishable by the public and emergency response personnel.

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

503.2.11 Existing fire lanes. When 40 percent of existing nonconforming fire lanes are replaced within a 12-month period, the entire fire lane shall be replaced according to current standards.

Section 503.3; change to read as follows:

503.3 Marking. Where required by the fire code official, approved signs or other approved notices or markings that include the words NO PARKING – FIRE LANE Striping, signs, or other markings, when approved by the *fire code official*, shall be provided for fire apparatus access roads to identify such roads, or prohibit the obstruction thereof. The means by which fire lanes are designated

Striping, signs and/or other markings shall be always maintained in a clean and legible condition and be replaced or repaired when necessary to provide adequate visibility. Examples of acceptable markings:

(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.

Section 503.4; change to read as follows:

503.4 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in section 503.2.1 and any area marked as a fire lane as described in section 503.3 shall be always maintained. Vehicles not in motion that are blocking any portion of a designated fire lane shall not be permitted. Loading and unloading of vehicles is not permitted within a fire lane. The fire code official may require loading and unloading areas be provided for properties where forced violations of section 503.4 are predictable. Circumstances where this could occur include but are not limited to large and/or frequent deliveries of goods and services and where patron volumes fluctuate beyond capacities.

Sections 503.4.2 and 503.4.3; add sections as follows:

503.4.2 Barriers. A five-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.

503.4.3 Forced violations. Self-service and full-service amenities (i.e., water dispensers, air dispensers, public telephones, et al) shall not be located or placed along fire lanes so that patrons are required to violate section 503.4 of this code to utilize such amenities.

The fire code official may require loading and unloading areas to be provided for properties where forced violations of section 503.4 are predictable. Circumstances where this could occur include but

are not limited to large and/or frequent deliveries of goods and services and where patron volumes fluctuate beyond parking capacities.

Section 503.6; change to read as follows:

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. Gates must be 24 feet wide to provide full fire lane opening width. The main entry gates shall be equipped with an approved signal pre-emption automated entry system. All other entry points along the fire lane must be automated or an approved key box compatible as approved by the fire marshal, to permit immediate access by fire personnel and equipment in the event of fire or emergency. All opening devices must meet the requirements of the Murphy Fire-Rescue department.

Section 503 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 505.1; change to read as follows:

505.1 Address Identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 12 inches (304.8 mm) high with a minimum stroke width of 2 inch (38.1 mm) and placed high up on the building facing the addressed street side of the building. 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 6-inch (152.4 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, unless otherwise approved by the fire code official. Address identification shall be maintained.

Exception:

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

Section 506 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 506.1; change to read: add sections as follows:

506.1 Where required. In new and/or existing buildings. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for lifesaving or fire-fighting purposes, the *fire code official* is authorized to require a key box to be installed in an *approved* location. The key box shall be of an *approved* type listed in accordance with UL 1037 and shall contain keys to gain necessary access as required by the *fire code official*.

Section 507 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 507.4; change to read as follows:

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

Section 507.5.1; Add section and amend exceptions to read as follows:

As properties develop, fire hydrants shall be located at all intersecting streets and at the maximum spacing indicated in Table 507.5.1. Distances between hydrants shall be measured along a route that the fire hose is laid by a fire vehicle from a hydrant. A fire hydrant is required at the start of the bulb of a cul-de-sac unless the distance to the next closest hydrant is 200 feet or less.

Table 507.5.1 Maximum Distance Between Hydrants

Occupancy	Sprinkled	Non-Sprinklered
Residential (1 and 2)	500 feet	400 feet
Residential (Multi-family)	400 feet	300 feet
All other	400 feet	300 feet

Exceptions:

1. For Group R-3 and Group R-4 occupancies, the distance requirement shall be 300 feet.
2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.1.1 or 903.3.1.2, the distance requirement shall be 400 feet.

Section 507.5.1.2, 507.5.1.3 and 507.5.1.4; add sections as follows:

Section 507.5.1.2 Protected properties. Fire hydrants required to provide a supplemental water supply for an automatic fire protection system shall be within 100 feet of the fire department connection for such system and shall be located on the same side of the fire lane. Off-wall yard mounted remote fire department connections are acceptable if the above criteria are met.

Section 507.5.1.3 Fire hydrant locations. Fire hydrants shall be at least two feet to six feet back of curb or fire lane and shall not be in the bulb of a cul-de-sac.

Section 507.5.1.4 Minimum number of hydrants. There shall be a minimum of two fire hydrants serving each property within the prescribed distances listed above. More hydrants per property may be required based on the construction type and square footage of the building and must meet the fire flow calculations and flow duration.

Section 507.5.1.5 Existing hydrants. Existing hydrants on public streets are allowed to be considered as available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads and where streets are not provided with median dividers which cannot be crossed by fire fighters pulling hose lines.)

Section 605 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 605.4 through 605.4.2.2 ; change to read as follows:

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

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

605.4.1.1 Approval. Outdoor fuel oil storage tanks shall be in accordance with UL 142 or UL 2085 and 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 un-sprinkled 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 606 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 606.2; change to read as follows:

606.2 Where required. A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors, including but not limited to cooking equipment used in fixed, mobile, or temporary concessions, such as trucks, buses, trailers, pavilions, or any form of roofed enclosure, as required by the fire code official.

Exceptions:

1. Tents, as provided for in Chapter 31.
2. {No change to existing Exception.}

Additionally, fuel gas and power provided for such cooking appliances shall be interlocked with the extinguishing system, as required by Section 904.12.2. Fuel gas containers and piping/hose shall be properly maintained in good working order and in accordance with all applicable regulations.

Section 903 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 903.2; add paragraph to read as follows and delete the ‘Exception’ for telecommunications buildings:

Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoist-ways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating “ELEVATOR MACHINERY – NO STORAGE ALLOWED.”

Sections 903.2.1.1, 903.2.1.3, 903.2.1.4, 903.2.2, 903.2.3, 903.2.4, 903.2.6, 903.2.8, and 903.2.8.1; change to read as follows:

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 m²).
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.

903.2.1.3 Group A-3. An automatic sprinkler system shall be [provided] for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 6,000 square feet (557.4 m²).
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.

903.2.1.4 Group A-4. An automatic sprinkler system shall be provided for Group A-1 [A-4] occupancies where one of the following conditions exists:

1. The fire area exceeds 6,000 square feet (557.4 m²).
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.

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 (557.4 m²) in area.
2. Throughout every portion of educational building below the level of exit discharge.

903.2.3 Group F-1. An automatic sprinkler system shall be provided for Group F-1 occupancies where one of the following conditions exists:

1. Where a Group F-1 fire area exceeds 6,000 square feet (557.4 m²).
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 (2230 m²).

903.2.4.2 Group F-1 distilled spirits. An automatic sprinkler system shall be provided throughout a Group F-1 fire area used for the manufacture of distilled spirits involving more than 120 gallons of distilled spirits (>16% alcohol) in the fire area at any one time.

903.2.6 Group M. An automatic sprinkler system shall be [provided] for Group M occupancies where one of the following conditions exists:

1. Where a Group M fire area exceeds 6,000 square feet (557.4 m²),
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 (2230 m²).

903.2.8 Group S-1. An automatic sprinkler system shall be [provided] for Group S-1 occupancies where one of the following conditions exists:

1. A Group S-1 fire area exceeds 6,000 square feet (557.4 m²);
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 (2230 m²).

903.2.9.3 Group S-1 distilled spirits or wine. An automatic sprinkler system shall be provided throughout a Group S-1 fire area used for the bulk storage of distilled spirits or wine involving more than 120 gallons of distilled spirits or wine (>16% alcohol) in the fire area at any one time.

903.2.9.1 Repair garages. An automatic sprinkler system shall be [provided] for 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 (557.4 m²),
2. One-story buildings with a fire area containing a repair garage exceeding 6,000 square feet (557.4 m²).
3. Buildings with a repair garage servicing vehicles parked in the basement.

Section 903.2.9; add Section 903.2.9.3 to read as follows:

903.2.9.3 Self-Service Storage Facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities. New self-storage facilities constructed within the City of Murphy and additions to existing self-storage facilities shall install a protective screen at least 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 (18) inches below any sprinkler heads.

Section 903.2.10; change to read as follows:

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 406.4 of the *International Building Code* or where located, beneath other groups.

Section 903.2.11.3; change 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 15010 of the International Building Code, that are located 35 feet (10,668m²) 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.

Section 903.2.11; add 903.2.11.7, 903.2.11.8, 903.2.11.9, 903.2.11.10 as follows:

903.2.11.7 High piled combustibles storage. For any building with a clear height exceeding 12 feet (4,572m²), see chapter 32 of the International Fire Code to determine if those provisions apply.

903.2.11.8 Spray booths and rooms. New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system regardless of the size of the fire area.

903.2.11.9 Buildings over 6,000 square feet. An automatic sprinkler system shall be installed throughout all buildings over 6,000 square feet and greater, and in all existing buildings that are enlarged to 6,000 square feet or greater, and in buildings greater than 6,000 square feet which are enlarged. For this provision, firewalls shall not define separate buildings nor shall two buildings on the same lot built in accordance with section 705.3 unless the buildings are separated by a minimum distance of 10 feet.

Exceptions:

1. Open parking garages in compliance with section 404.3 of the International Building Code.

2. Type A-5 when constructed entirely of noncombustible, nonflammable materials.

903.2.11.10 Expanded tenant spaces. Fire sprinklers shall be installed in all tenant spaces where the fire area exceeds 6,000 square feet. Firewalls shall not be used to separate single tenant fire areas.

Section 903.3.1.1.1; change to read as follows:

903.3.1.1.1 Exempt locations. When approved by the 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. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the 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.

Section 903.3.1.2.2; change 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; delete section and replace as follows:

903.3.1.2.3 Attached garages and 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.

Section 903.3.1.3; change to read as follows:

903.3.1.3 NFPA 13D Sprinkler Systems. *Automatic sprinkler systems* installed in one- and two-family *dwelling*s; 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; amend by the addition of the following 903.3.1.4; 903.3.1.5; 903.3.1.5.1

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

1. A single underground supply and point for the fire department connection (FDC) shall be provide 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 inspector's 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. Risers shall be located in heated areas and shall not be located in an exterior wall. Risers located in a wall between a heated area and an unheated area (such as an attached garage or attic space) shall have its access panel facing the heated area.
6. Fire pumps shall be equipped with a properly sized test header.
7. 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.
8. Porches and balconies shall be sprinklered on all Group R-2 and R-3 occupancies.
9. A minimum of 4 feet of pipe between the check valve and inside wall of the fire department connection.

903.3.1.5 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.

903.3.1.5.1 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.

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

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.

Section 903.4; add a second paragraph after the exceptions to read as follows:

903.4 Sprinkler system supervision 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. 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 903.4.2; add second paragraph to read as follows:

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.

Section 903.4.3; change 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 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 905.2; change to read as follows:

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

Section 905 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 905.3.2; amend as follows:

Section 905.3.2 Group A; delete exceptions 1 and 2.

1. Deleted
2. Deleted

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

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

Exceptions:

1. Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.
2. R-2 occupancies of four stories or less in height having no interior corridors.

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

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.
2. {No change.}
3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from an exit stairway hose connection by a {No change to rest.}

4. {No change.}
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 a hose connection ~~shall be~~ located to serve the roof or at the highest landing of an ~~interior~~ exit stairway with stair access to the roof provided in accordance with Section 1011.12.
6. {No change.}
7. When required by this Chapter, standpipe connections shall be placed at two hundred feet (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

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

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 more

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

Section 906 of the International Fire Code adopted in section 8.02.002 is amended as follows:

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

3. Deleted

Section 907 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 907.1; add Section 907.1.4 to read as follows:

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

Section 907.2.1; change to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies ~~where the~~ having an occupant load 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: {No change.}

Activation of fire alarm notification appliances shall:

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

Section 907.2.3; change to read as follows:

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

building for alarm occupant load consideration and interconnection of alarm systems.

Exceptions:

1. {No change}

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

Section 907.2.6; amend by the addition of the following:

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.

Section 907.2.10; change to read as follows:

907.2.10 Group S. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group S public and self-storage occupancies for interior corridors and interior common areas. Visible notification appliances are not required within storage units.

Exception: {No change.}

Section 907.2.13, change to read as follows:

907.2.13 High-rise buildings. Buildings having floors used for human occupancy located more than 55 feet (16,764 m²) above the lowest level of fire department vehicle access shall be provided with an automatic fire alarm system and an emergency voice/alarm communication system in accordance with section 907.2.12.2.

Section 907.2.13, exception 3; change to read as follows:

3. Open air portions of buildings with an occupancy in Group A-5 in accordance with section 303.1 of the International Building Code, 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.

Section 907.4.2; add Section 907.4.2.7 to read as follows:

907.4.2.7 Manual alarm-actuating devices. Manual alarm-actuating devices shall be an approved double action type.

Section 907.6.1; add Section 907.6.1.1 to read as follows:

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

Section 907.6.3; delete all four Exceptions.

Section 907.6.6; add first sentence to the end of the first paragraph and add the second paragraph after the first paragraph to read as follows:

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

907.6.6 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. 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 909 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 909.22; add to read as follows:

909.22 Stairway or Ramp Pressurization Alternative. Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and the stair pressurization alternative is chosen for compliance with Building Code requirements for a smokeproof enclosure, interior exit stairways or ramps shall be pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all interior exit stairway and ramp doors closed under maximum anticipated conditions of stack effect and wind effect. Such systems shall comply with Section 909, including the installation of a separate fire-fighter's smoke control panel as per Section 909.16, and a Smoke Control Permit shall be required from the fire department as per Section 105.7.

909.22.1 Ventilating equipment. The activation of ventilating equipment for the stair or ramp pressurization system shall be by smoke detectors installed at each floor level at an approved

location at the entrance to the smokeproof enclosure. When the closing device for the stairway or ramp shaft and vestibule doors is activated by smoke detection or power failure, the mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

909.22.1.1 Ventilation Systems. Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:

1. Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through ductwork enclosed by not less than 2-hour barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

Exceptions:

1. Control wiring and power wiring utilizing a 2-hour rated cable or cable system.
2. Where encased with not less than 2 inches (51 mm) of concrete.
3. Control wiring and power wiring protected by a listed electrical circuit protective systems with a fire-resistance rating of not less than 2 hours.

909.22.1.2 Standby Power. Mechanical vestibule and stairway and ramp shaft ventilation systems and automatic fire detection systems shall be provided with standby power in accordance with Section 2702 of the Building Code.

909.22.1.3 Acceptance and Testing. Before the mechanical equipment is approved, the system shall be tested in the presence of the fire code official to confirm that the system is operating in compliance with these requirements.

Section 910 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 910; add a second paragraph after the exceptions to read as follows:

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

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 $50(m \cdot S)^{1/2}$ 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 910.2; add subsections 910.2.3 with exceptions to read as follows:

910.2.3 Group H. Buildings and portions thereof used as a Group H Occupancy as follow:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 sq. feet in a 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.

Section 910.2.3; add to read as follows:

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

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

Section 910.3; 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 910.3.2.1 through 910.3.2.3.

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 910.4.3.1; change to read as follows:

910.4.3.1 Makeup Air. Makeup air openings shall be provided within 6 feet (1829 mm) of the floor level. Operation of makeup air openings shall be automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m² per 0.4719 m³/s) of smoke exhaust.

Section 912.2.1; add Section 912.2.1.1 to read as follows:

912.2.1.1 Off-Wall Fire Department Connections. Off-wall or yard mounted remote fire department connections are acceptable if the criteria for 912.2.3 is met.

Section 912.2; add Section 912.2.3 to read as follows:

912.2.3 Hydrant Distance. An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays along a ten (10') foot wide unobstructed path of travel and shall be located on the same side of the fire lane.

Section 913 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 913.1; add second paragraph and exception to read as follows:

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

Exceptions:

2. 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.

Section 913.4; add a second paragraph to read as follows:

Section 913.4 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 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 914.2.3; amend to read as follows:

914.2.2 Emergency voice/alarm communication system. Where the total floor area exceeds 50,000 square feet (4645m²) within either a covered mall building or within the perimeter line of an open mall building; or when the occupant load is 1000 or greater, an emergency voice/alarm communication system shall be provided. *Access* to emergency voice/alarm communication systems serving a mall, required or otherwise, shall be provided for the fire department. The system shall be provided in accordance with Section 907.5.2.2.

Section 914.3.1.2; change to read as follows:

914.3.1.2 Water Supply to required Fire Pumps. In all buildings that are more than 120 feet (36.6 m) in *building height*, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection

to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: {No change to exception.}

Section 1006 of the International Fire Code adopted in section 8.02.002 is amended as follows:

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

Exceptions:

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

Section 1009 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 1009.8; add Exception #7 to read as follows:

Exceptions:

1. through 6. {No change.}
7. Buildings regulated under State Law and built-in accordance with State registered plans, including variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1009 and Chapter 11.

Section 1010 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 1010. 2.5 Bolt Locks; change Exceptions 3 and 4 to read as follows:

Exceptions:

1. {No change.}
2. {No change.}
3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M or S occupancy. (remainder unchanged)
4. Where a pair of doors serves a Group A, B, F, M or S occupancy (remainder unchanged)
5. {No change.}

Section 1010.2.12; add criteria #9 as follows:

Section 1010.2.12.

9. If a full building smoke detection system is not provided, approved smoke detectors shall be provided on both the access and egress sides of doors and in a location approved by the authority having jurisdiction of NFPA 72. Actuation of a smoke detector shall automatically unlock the door.

Section 1015 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 1015.8 Window Openings; change number 1 to read as follows:

1. Operable windows where the top of the sill of the opening is located more than 55 (16 764 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.

Section 1103 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 1103.5.6; add to read as follows:

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

Section 1103.7; add Section 1103.7.8 and 1103.7.8.1 to read as follows:

1103.7.8 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.

1103.7.8.1 Communication requirements. Refer to Section 907.6.6 for applicable requirements.

Section 1203 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 1203; change and add to read as follows:

1203.1.3 Installation. Emergency power systems and standby power systems shall be installed in accordance with the *International Building Code*, NFPA 70, NFPA 110 and NFPA 111. Existing installations shall be maintained in accordance with the original approval, except as specified in Chapter 11.

1203.1.5 Load Duration. Emergency power systems and standby power systems shall be designed to provide the required power for a minimum duration of 2 hours without being refueled or recharged, unless specified otherwise in this code.

Exception:

1. Where the system is supplied with natural gas from a utility provider and is approved.

1203.1.10 Critical Operations Power Systems (COPS). For Critical Operations Power Systems necessary to maintain continuous power supply to facilities or parts of facilities that require continuous operation for the reasons of public safety, emergency management, national security, or business continuity, see NFPA 70.

1203.2 Where required. Emergency and standby power systems shall be provided where required by Sections 1203.2.1 through 1203.2.26 or elsewhere identified in this code or any other referenced code.

Section 2304 of the International Fire Code adopted in section 8.02.002 is amended 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.

Section 3103 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 3103.3.1; delete this section in its entirety

Section 3206 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Table 3206.2, footnote h; change text 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.

Table 3206.2; add footnote j to row titled 'High Hazard' and 'Greater than 300,000' to read as follows:

j. High hazard high-piled storage areas shall not exceed 500,000 square feet. A 2-hour fire wall constructed in accordance with Section 706 of the *International Building Code* shall be used to divide high-piled storage exceeding 500,000 square feet in area.

Section 3311 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 3311.1; change to read as follows:

Section 3311.1 Require access. Approved vehicle access for firefighting and emergency responses shall be provided to all construction or demolition sites. Permanent vehicle access roads and/or fully and permanently marked fire lanes are required to be installed prior to the time which construction has progressed beyond completion of the foundation of any structure. Combustible building materials are prohibited from being stored on the site location prior to acceptance of the permanent access roads and/or fire lanes without first obtaining approval from the fire code official.

Section 5601 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 5601.1 Scope; add the following to the first paragraph: The presence or use of fireworks within the jurisdiction of the city is in violation of this subchapter and is hereby declared to be a common and public nuisance. The restrictions of this section shall be applicable and in force throughout the city.

Section 5601.1.3; change to read as follows:

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

Exceptions:

1. Only when approved for fireworks displays, storage and handling of fireworks as allowed in section 5604 and 5608.
2. The use of fireworks for approved display as allowed in section 5608.

Section 5602 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 5602; change the definition of “fireworks” to read as follows:

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 1.4G fireworks or 1.3G fireworks as set forth herein.

Section 5608 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Sections 5608.12 and 5608.12; add to section 5608 as follows:

5608.11 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.

5608.12 Marking of shells. Each aerial shell shall have printed directly on its outer casing the following minimum warning in 1/8-inch-high letters which contrast to the background:

WARNING
EXPLOSIVES
CLASS “C” FIREWORK
DO NOT HANDLE - CALL “9-1-1”

Sec. 8.02.022 Sale of fireworks

The city council hereby declares the sale of fireworks unlawful and prohibits the sale of fireworks within the corporate city limits. (2006 Code, sec. 34-42; Ordinance 09-03-789, sec. 2, adopted 3/16/09)

Sec. 8.02.023 Possession and discharge of fireworks; permit requirements

The city council hereby declares the possession of fireworks or discharge of fireworks within the city to be unlawful except where a special permit has been issued by the city council and approved by the city fire marshal. (2006 Code, sec. 34-43; Ordinance 09-03-789, sec. 2, adopted 3/16/09)

Section 5703 of the International Fire Code adopted in section 8.02.002 is amended as follows:

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

5703.6 Piping Systems. An approved method of secondary containment shall be provided for underground tank and piping systems.

Section 5704 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 5704.2.7.1; amend by the addition of the following:

Secondary containment shall be provided for all above ground 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 fire marshal.

Section 5704.2.9.6.1; amend to read as follows:

5704.2.9.6.1 Locations where above-ground tanks are prohibited within the jurisdiction. The storage of flammable or combustible liquids in outside above-ground tanks is prohibited within each and every zoning district within the city with the exception of those districts which are zoned for industrial use. Installation of above-ground tanks in industrial districts shall be permitted at the discretion of the fire marshal following his review of the proposed installation location and the fire protection for the storage area. When used in conjunction with chapter 223, above-ground storage will be allowed at the discretion of the fire marshal. Tanks shall not be located within 100 feet of the property line of any Group E, I, or R occupancies unless superseded by current Texas state law.

Section 5704.2.11.4; amend to add the following sentence:

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

Section 5704.2.11.4.2; amend to read as follows:

5704.2.11.4.2 Leak detection. Underground storage tank systems ... {bulk of provision unchanged} ... and installed in accordance with NFPA 30 and as specified in section 3404.2.11.5.3.

Section 5704.2.11.4.3; add section to read as follows:

5704.2.11.4.3 Dry sumps. Approved sampling tubes of a minimum six 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 four sumps. Sampling tubes shall be placed in the product line excavation within ten 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 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Sections 5706.5.4.5 and 5706.5.4.5.1 through 5706.5.4.3; amend and add sections as follows:

5706.5.4.5 Commercial, industrial, governmental, or manufacturing. Dispensing of Class II and Class 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.

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.
 5. Mobile fueling shall not take place within 15 feet (4.572m) of buildings, property lines, or combustible storage.

5706.5.4.5.2 Refueling operator requirements.

1. The owner of mobile fueling operations 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 (7.62m) of the tank vehicle or the point of fueling shall be prominently posted on three 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 (30.48m) in length.
7. Absorbent materials, non-water-absorbent pads, a ten-foot (3.048m) long containment boom, an approved container with lid, and a nonmetallic shovel shall be provided to mitigate a minimum five-gallon fuel spill.
8. Tanker vehicles shall be equipped with a fuel limit switch such as a countback switch, limiting the amount of a single fueling operation to a maximum of 500 gallons (1,893L) between re-settings of the limit switch.
 - a. 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 a 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 always have in their possession an emergency communications device to notify the proper authorities in the event of an emergency.

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. Nighttime fueling operations shall only take place in adequately lighted areas.
5. The tank vehicle shall be positioned with respect to vehicles being fueled to preclude traffic from driving over the deliver 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 5707 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 5707.4; add paragraph to read as follows:

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

Section 6103 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 6103.2.1.8; add 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 not less than 20 feet.

Section 6104 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 6104.2; add Exception 2. to read as follows:

Exceptions:

1. *{existing text unchanged}*
2. Except as permitted in Sections 308 and 6104.3.3, LP-gas containers are not permitted in residential areas.

Section 6104.3.3; add to read as follows:

6104.3.3 Spas, Pool Heaters, and Other Listed Devices. Where natural gas service is not available, an LP-gas container is allowed to be used to supply spa and pool heaters or other listed devices. Such container shall not exceed 250-gallon water capacity per lot. See Table 6104.3 for location of containers.

Exception: Lots where LP-gas can be off-loaded wholly on the property where the tank is located may install up to 500 gallon above ground or 1,000 gallon underground approved containers.

Section 6107 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 6107.4; change to read as follows:

6107.4 Protecting Containers from Vehicles. Where exposed to vehicular damage due to proximity to alleys, driveways or parking areas, LP-gas containers, regulators and piping shall be protected in accordance with Section 312.

Section 6109 of the International Fire Code adopted in section 8.02.002 is amended as follows:

Section 6109.13; change to read as follows:

6109.13 Protection of Containers. LP-gas containers shall be stored within a suitable enclosure or otherwise protected against tampering. Vehicle impact protection shall be provided as required by Section 6107.4.

Exception: Removed

State Law References: Texas Natural Resources Chapter 113.054; Prohibits municipalities from

enacting ordinances regulating any portions of the Liquefied Petroleum Gas (LPG - Propane) industry in Texas. All regulations rest with the Railroad Commission of Texas as the Authority Having Jurisdiction.

Appendix B of the International Fire Code adopted in section 8.02.002 is amended as follows:

{Appendix B Fire-Flow Requirements for Buildings}

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

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

END