

Order

The Local Government Code 233.061. Authority to Adopt and Enforce Fire Code. (a) The commissioners court of a county with a population of over 250,000 or a county adjacent to a county with a population of over 250,000 may adopt a fire code and rules necessary to administer and enforce the fire code. Added by Acts 1989, 71st Leg., ch. 296, § 1, eff. Jan. 1, 1991. Amended by Acts 1997, 75th Leg., ch. 598, § 1, eff. June 11, 1997. Renumbered from V.T.C.A., Local Government Code § 235.001 by Acts 2001, 77th Leg., ch. 1420, § 12.003(4), eff. Sept. 1, 2001; and

Whereas, the 2006 Commissioners Court so ordered on December 5, 2006 the adoption of the Denton County Fire Code and the rules and regulations necessary for the administration and enforcement of the fire code, and further ordered the Denton County Fire Code to be effective January 1, 2007.

Whereas, the International Code Council has published the 2015 Edition of the International Fire Code[®] and the 2015 Edition of the International Building Code[®]; as well as other Model Codes that may be referenced by the Denton County Fire Code, and

Whereas, the Department of Insurance of the State of Texas has adopted by rule the National Fire Protection Association (NFPA), NFPA 101 Life Safety Code[®], 2015 Edition as the standard for state inspections and is the current reference for the State Fire Marshal Office; and the National Fire Protection Association (NFPA), 2017 Edition National Electric Code[®] (NEC) as the current State adopted Electric Code and;

Whereas, the County Fire Marshal recommends fire code revisions and reference to the current standards and to amend the 2006 Court Order to adopt the Denton County Fire Code.

Whereas, the Commissioners Court adopted the following amended versions of the Denton County Fire Code and the rules and regulations necessary for administration and enforcement, pursuant to Local Government Code 233.061, which was originally adopted on December 5, 2006 and became effective on January 1, 2007, amended December 2, 2008 and becoming effective January 1, 2009, and amended November 1, 2011 and became effective on November 2, 2011.

Therefore, the Commissioner's Court orders the following amendments of the Denton County Fire Code to be in effect January 2, 2017.

DENTON COUNTY FIRE CODE

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ADOPTED: December 5, 2006
EFFECTIVE: January 1, 2007
AMENDED: December 2, 2008
EFFECTIVE: January 1, 2009
AMENDED: November 1, 2011
EFFECTIVE: November 2, 2011
AMENDED: November 1, 2016
EFFECTIVE: January 1, 2017

DENTON COUNTY EMERGENCY SERVICES

Office of the Fire Marshal Emergency Management Homeland Security

**JODY GONZALEZ
DENTON COUNTY FIRE MARSHAL**

PREFACE

It is hereby found by the Commissioners Court of Denton County that fires have occurred in the past within its jurisdiction and are likely to occur in the future, and that damage to property and loss of life occurs for many reasons including fires that could have been prevented or minimized by providing additional safeguards to provide adequate egress time and protection for people exposed to fire.

Texas Local Government Code, Chapter 233, Section 233.061 authorizes certain counties to adopt a fire code and the regulations necessary to administer and enforce the fire code. As the governing body of Denton County, Texas, the Commissioners Court finds that adopting a fire code and requiring permits for the construction of commercial establishments, public buildings and multi-family residences in the unincorporated areas of Denton County will impose standards to protect the health, safety and welfare of life and property of the general public. The fire code requires periodic inspection of new and existing structures to ensure safety standards are being maintained for the continued practice of life safety and property conservation.

From time to time the standards and regulations referenced in this code are revised and amended to enhance and improve life safety and property conservation. This court recognizes the need of forethought and progress for the County and its citizens and so orders the amendment of the Denton County Fire Code.

This order includes the *International Fire Code*[®], and all references as the standard in regulating and governing the safe-guarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises in the County of Denton. In addition this order contains amendments to the *International Fire Code*[®] to enhance its application to the unincorporated areas of Denton County.

The Commissioner's Court of the County of Denton does ordain as follows:

THE DENTON COUNTY FIRE CODE

SECTION 100 GENERAL PROVISIONS

100.1 AUTHORITY

The Denton County Commissioners Court is the governing body for the County and orders herein:

- a) Under Chapter 233 of the Texas Local Government Code the Commissioners Court is authorized to adopt a fire code and rules necessary to administer and enforce the fire code, and
- b) These regulations adopted by the Commissioners Court shall be known as the Denton County Fire Code, hereinafter referred to as “*this code*” and,
- c) Denton County Emergency Services; The Office of the Fire Marshal, Office of Emergency Management and Homeland Security shall have the powers and duties to direct and enforce this code and,
- d) The Denton County Fire Marshal shall be known as the Fire Code Official and,
- e) *This code* establishes the Department of Fire Prevention and this department will be a division of the Denton County Fire Marshal Office directed by Denton County Emergency Services.

Therefore, in the interest of the public this code applies to the County of Denton and the jurisdiction will be the unincorporated areas of Denton County, Texas after the effective date of *this code*.

100.2 SCOPE

This code is intended to provide minimum requirements, with due regard to function, for the design and construction or substantial improvements of public buildings, commercial establishments, and multi-family residential dwellings consisting of four or more units to reduce the risk to life and property from fire and other hazards.

100.3 PURPOSE

The purpose of *this code* is to promote and protect buildings constructed in the unincorporated area of the county from fire and other hazards so by this order:

- a) *This code* establishes the minimum standards for construction to provide for the health, safety and welfare of the residents of those establishments.
- b) *This code* recognizes fire safety in regard to operation and use of buildings and structures after construction, whether or not their construction was subject to this code, and shall be enforced independent of this code by the County Fire Marshal in accordance with applicable law, including but not limited to his independent authority to inspect for the presence of fire and life safety hazards and order their correction under Chapter 352 of the Texas Local Government Code.
- c) *This code* is not intended in any way to limit the statutory authority of the Fire Marshal, and it is intended that such authority be retained to the fullest extent that the law would authorize.
- d) *This code* is not intended to repeal, abrogate or impair any existing laws, regulations, easements, covenants or deed restrictions. In provisions of this code where this code and other legal requirements conflict or overlap, whichever imposes the more stringent restriction shall prevail.

100.4 REGULATION

The Denton County Fire Code shall conform to a fire code as published by the International Code Council® (ICC) as the code existed on May 1, 2005; and establish protective measures that exceed the standards of the code describe herein. The current publication from the International Code Council®

(ICC) is the International Fire Code®, 2015 Edition. The Commissioner's Court may adopt later editions of a fire code published by the International Code Council® as revisions are released from time to time.

100.5 REFERENCED CODES AND STANDARDS. The design and construction of new structures shall comply with *this code*, and other codes as applicable when referenced in *this code*. Any alterations, additions, changes in use, or changes in structures, new or existing structures are required to comply with *this code* which is within the scope of this and other referenced codes and shall be made in accordance therewith.

This code means this document, the codes and standards in the referenced document known as the *International Fire Code*®, 2015 Edition, including Chapter 80 Referenced Standards, and Appendices' B, C, D, E, F, G, H, I, J, and K as published by the International Code Council® (ICC), except for the portions that have been made as additions, insertions, deletions or changes in the Amendments to the *International Fire Code*® and any other referenced codes and standards.

The codes and standards references in *this code* shall be those that are listed in the *International Fire Code*®, 2015 Edition Chapter 80 and such codes and standards, when specified in *this code*, shall be considered part of the requirements of *this code* to the prescribed extent of each such reference. Where differences occur between the provisions of *this code* and the referenced standards, the provisions of this code shall apply. Whenever *this code* or the referenced codes and standards have been adopted each reference to said code and standard shall be considered to reference any adopted amendments as well.

This code recognizes the *International Building Code*®, 2015 Edition, as the standard for establishing the minimum requirements in design and construction through structural strength, means of egress facilities and stability of new buildings to safeguard for fire and life safety and other hazards attributed to the built environment and provide safety to fire fighters and emergency responders during emergency operations, therefore the *International Building Code*®, 2015 Edition is made a part of *this code* in full volume and reference including Chapter 35 Referenced Standards and Appendices C, E, F, G, H, J, and K.

The North Central Texas Council of Governments (NCTCOG) publishes a Recommendation to the latest version of the *International Fire Code*®, the *International Building Code*®, and the latest editions of the model codes from the International Code Council® (ICC). The latest recommended amendments from the North Central Texas Council of Governments are incorporated and made a part of *this code*. Any additions, insertions, deletions, or changes to the recommendations are included in the Amendments to the Denton County Fire Code.

This code recognizes the International Code Council® Model Codes; *International Mechanical Code*® (IMC), *International Plumbing Code*® (IPC), *International Fuel Gas Code*® (IFGC), and the *International Existing Building Code*® (IEBC), 2015 Editions, as adopted by the State of Texas when referenced by *this code* is a part of *this code*.

The International Code Council® recognizes the National Fire Protection Association, herein referred as (NFPA), NFPA 70 *National Electric Code*® as the standard to work with the model codes. The State of Texas has adopted the NFPA 70 as the State's Electrical Code. The NFPA 70 *National Electric Code*® is recognized as a part of *this code*.

This code may refer to the standards specified in the National Fire Protection Association (NFPA), *NFPA 101 Life Safety Code*®. The current publication recognized by the State is the 2015 Edition, and

this code recognizes the current edition as part of *this code* and any subsequent editions published by the National Fire Protection Association that may be released after the adoption of *this code*.

This code may refer to standards from any publications in this section for an alternative method of obtaining the desired level of fire protection to ensure life safety and property conservation on new construction, or the regulation of buildings constructed prior to the effective date of *this code*. If conditions exist where full fire protection cannot meet code requirements alternative methods of life safety and fire protection may be presented to the fire code official for review. Life safety features will not be compromised or reduced by the use of alternative methods of fire protection.

100.6 DUTIES OF THE FIRE MARSHAL

The Fire Marshal's Office shall enforce *this code* and,

- a) The Fire Marshal shall be known as the Chief of Denton County Emergency Services and,
- b) The chief and their designees shall have the authority of and function as the Fire Code Officials for the unincorporated areas of Denton County.

100.7 DISCLAIMER OF LIABILITY

This code does not imply that any building or the uses permitted within any building will be free from a fire or other hazards. *This code* shall not create liability on the part of Denton County or any officer or employee thereof for any damages that result from reliance on *this code* or any administrative decision lawfully made based on this code. The granting of a permit or issuance of a Fire Final Inspection does not imply that the building can be insured for fire coverage.

If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The Commissioner's Court of Denton County hereby declares that it would have passed this ordinance, and each section, subsection, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional.

100.8 APPLICATIONS AND PERMITS

The fire code official or their designees, is authorized to receive applications, review construction documents and issue permits for construction regulated by *this code*, issue permits for operations regulated by *this code*, inspect the premises for which such permits have been issued and enforce compliance with the provisions of *this code* and therefore:

- a) A person may not construct or substantially improve a building in the unincorporated area of the county unless the person obtains a building permit issued in accordance with *this code*.
- b) A person may apply for a building permit by providing to the fire code official:
 - (1) A set of construction documents and site plan of the proposed building containing information required by *this code*; and
 - (2) An application fee in an amount set by the fee schedule of. The Denton County Permit Fee Schedule.
- c) Within 30 days after the date the fire code official receives a Construction Application, construction documents, site plan, and fee in accordance with this Subsection, the fire code official shall:
 - (1) Issue the permit if the construction documents and site plan complies with *this code*; or
 - (2) Deny the permit if the construction documents and site plan does not comply with *this code*.

- d) If the fire code official receives an Construction Application, construction documents, site plan, and fee in accordance with Subsection (b) and the fire code official does not issue the permit or deny the application within 30 days after receiving the application and fee, the construction or substantial improvement of the building or structure that is the subject of the Construction Application is approved for the purposes of *this code*.

100.9 CONSTRUCTION PROVISIONS

This code applies only to the following buildings and structures constructed in the unincorporated area of Denton County:

- a) A commercial establishment;
- b) A public building; and
- c) A multi-family residential dwelling consisting of four or more units.

This code does not apply to an industrial facility having a fire brigade that conforms to requirements of the Occupational Health and Safety Administration.

This code recognizes all new construction of a building or structure that is part of a commercial establishment, public access building, or a multi-family residence of four units or more, and all existing buildings or structures that undergo a substantial improvement as defined in this section.

- a) "Substantial Improvement" as meaning:
 - 1) The repair, restoration, reconstruction, improvement, or remodeling of a building for which the cost exceeds 50 percent of the building's value according to the certified tax appraisal roll for the county for the year preceding the year in which the work was begun; or
 - 2) Any building or structure that undergoes any alteration, movement or enlargement due to construction or renovation, horizontal or vertical, that increases the size of the structure in net square footage from the original construction of the structure.
 - 3) A change in occupancy classification involving a change in the purpose or level of activity in a building or structure, including the renovation of a warehouse into a loft apartment.
- b) For purposes of *this code*, substantial improvement begins on the date that the repair, restoration, reconstruction, improvement, or remodeling or the change in occupancy classification begins or on the date materials are first delivered for that purpose.
- c) For purposes of *this code*, construction begins on the date that ground is broken for a building or structure, or if no ground is broken, on the date that:
 - 1) The first materials are added to the original property;
 - 2) Foundation pilings are installed on the original property; or
 - 3) A manufactured building, structure, or relocated structure is placed on a foundation on the original property.

Construction documents and site plans for proposed fire apparatus access, location of fire lanes, types of construction, fire-resistance rated construction, location of fire hydrants, fire protection systems, hydraulic calculations for fire hydrant systems and fire protection systems, means of egress, fire hazards, hazardous materials, and hazardous processes shall be submitted to the fire code official for review and approval.

The submitted construction documents standard will be 24" x 36" on suitable material and include design standards as recommended by the American Institute of Architects (AIA), Construction Specifications Institute (CSI), National Institute of Building Science (NIBS), or equivalent, and indicate

conformance to *this code* and all relevant laws, rules, and regulations. The construction documents submitted will be accompanied by a site plan, to scale, showing the lot lines, size and location of new construction, and any existing structures on the site. An electronic media copy of the plan set standard will be accepted with one paper set. The construction documents and site plan shall be signed and sealed by a Texas Licensed Professional Engineer, a Texas Licensed Architect, or a Design Professional Registered with the Texas Board of Architects.

Based on the complexity of the development project additional details to the construction documents may be required by the fire code official. A detailed list of requirements may be provided upon request.

The construction documents requirements may be waived by the fire code official if a site plan and substantial evidence is provided show the project is in compliance with *this code*.

Construction documents may be submitted to a third party for review that is licensed in the State of Texas, specializing in fire protection plan review services that are not associated with the applying company or their designer, architect or contractor. One (1) copy that has been reviewed by a third party will be submitted to the fire code official for final review and approval prior to construction. This part does not waive or exempt any fees or charges that are associated with the Denton County Permit Fee Schedule.

100.10 INSPECTIONS

The fire code official shall inspect a building subject to *this code* to determine whether the building complies with the adopted codes, standards, and references. The fire code official may appoint a designee to perform the inspection of a building.

The fire code official or his designee may enter and perform the inspection of a building at a reasonable time at any stage of the building's construction or substantial improvement and after completion of the building:

- a) On or before the date that construction or substantial improvement of a building subject to this subchapter is completed, the owner of the building shall request in writing that the fire code official inspect the building for compliance with *this code*.
- b) The fire code official shall begin the inspection of the building within five business days after the date of the receipt of the written inspection request. If the fire code official is properly requested and the fire code official does not begin the inspection within the time permitted by this subsection, the building that is the subject of the request is considered approved for the purposes of this subchapter.
- c) The fire code official shall issue a final certificate of compliance or a fire final inspection to the owner of a building inspected under this section if the inspector determines, after an inspection of the completed building, that the building complies with *this code*.
- d) If the fire code official determines, after an inspection of the completed building, that the building does not comply with this code:
 - 1) The fire code official shall deny the certificate of compliance or fire final approval; and
 - 2) The building may not be occupied.

Buildings constructed prior to the effective date of *this code* and buildings constructed after the effective date of *this code* may be inspected for fire and life safety hazards. The inspections of buildings and structures will be for any conditions that endanger the safety of the building or structure or its occupants and promote or causes fire or combustion, which shall include:

- a) The presence of a flammable substance;
- b) A dangerous or dilapidated wall, ceiling, or other structural element;
- c) Improper electrical components, heating or other building services or facilities;
- d) The presence of a dangerous chimney, flue, pipe, main, or stove, or of dangerous wiring;
- e) Dangerous storage, including storage or use of hazardous substances or;
- f) Inappropriate means of egress, fire protection, or other fire-related safeguards.

The inspection of these buildings will be subject to a fee as prescribed by the Denton County Permit Fee Schedule.

The buildings constructed prior to the effective date of *this code* shall be subject to the requirements of *this code*, the *International Fire Code*[®], any references per Chapter 80, and any adopted amendments of *this code* when:

- a) There is a change in the occupancy status, or
- b) There is a change in the design or construction of the structure due to restoration, reconstruction, improvements, or remodeling for which the cost exceeds 50 percent of the buildings value according to the certified tax appraisal roll for the county for the year preceding the year in which the work was begun, or
- c) Any structure that undergoes any alteration, movement or enlargement due to construction or renovation, horizontal or vertical, that increases the size of the structure in net square footage from the original construction of the structure, or
- d) There is a condition that constitutes a fire hazard, hazard to life safety, or danger to property.

100.11 ESTABLISHMENT OF BOARD OF REVIEW AND ITS DUTIES AND POWERS

The Commissioner’s Court will serve as the Board of Review. The Board of Review will have final authority on recommendations, decisions, or determinations made by the Fire Code Official about the application and interpretation of *this code* in reviewing building permit applications for modifications of the requirements of *this code*.

The Commissioner’s Court may appoint a board of Review for interpretation and application of *this code* relating to commercial development in the County.

The County will provide general legal counsel to the Board of Review for matters that are presented to the Board for consideration. The legal counsel will be at the expense of the County for all matters presented to the Board for review.

Upon creation of a Board of Review, this Board will review the recommendations, decisions or determinations made by the fire code official about the application and interpretation of *this code* in reviewing building permit applications for modifications of the requirements of *this code*.

The Commissioners Court appoints the members of the Board of Review. The members of the Board of Review must be qualified by experience and training to pass on matters pertaining to hazards of fire, explosions, hazardous condition or fire protections systems and are not employees of the County. The members of the board shall consist of five members having one or more of the following qualifications:

- a) One member shall be a practicing design professional registered in the practice of engineering or architecture in Texas.
- b) One member shall be a qualified engineer, technologist, technician or safety professional trained in fire protection engineering, fire science or fire technology. This representative may be fire protection contractors and certified technicians engaged in fire protections system design.
- c) One member shall be a registered industrial or chemical engineer, certified hygienist, certified safety professional, certified hazardous materials manager or comparably qualified specialist experienced in chemical process safety or industrial safety.
- d) One member shall be a contractor regularly engaged in the construction, alteration, maintenance, repair or remodeling of buildings or building services and systems regulated by this code.
- e) One member shall be a representative of business or industry not represented by a member from the other categories of board members described in this section.

The members of this committee appointed by the commissioner’s court shall be subject to the following terms and conditions:

- a) Members serve without remuneration or compensation, and may be removed from office before the end of their appointed terms only for cause.
- b) Members are appointed for terms of four years. Members shall not be reappointed to serve more than two consecutive full terms. Of the first members appointed, two shall be appointed for a one year term, two shall be appointed for a two year term, and one shall be appointed for a three year term.
- c) Commissioners Court fills vacancies for the remainder of the unexpired term in the categories in which original appointments are to be made. Members appointed to fill a vacancy in an unexpired term are eligible for reappointment to two full terms.
- d) Members may be removed from the board of review before the end of their terms only for cause. Continued absence of any member from meetings of the board, at the discretion of the Commissioners Court, may render that member liable to immediate removal from the board.
- e) Members with a material financial interest in a matter before the board shall declare that interest and refrain from participating in discussions, deliberations, and voting on these matters.

100.12 FEES

The Denton County Permit Fee Schedule is recognized by the Commissioners Court as the Fee Schedule for the purposes of this section and reflect the approximate cost of the inspection personnel, materials used, and administrative overhead to enforce *this code* and;

- a) The fee schedule is based on building type and include plans review, inspections and the issuance of a building permit and final certificate of compliance or a fire final and,
- b) The county shall deposit fees received under *this code* in a special fund in the county treasury, and money in that fund may be used only for the administration and enforcement of *this code*.

100.13 VIOLATIONS

Persons who shall violate a provision of *this code* or shall fail to comply with any of the requirements of *this code* 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 subject to punishment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Any person, firm, or corporation operating or maintaining any occupancy, premises or vehicle subject to *this code* who shall permit any life safety or fire hazard to exist on the premises under their control or who shall fail to take immediate action to abate a life safety or fire hazard when ordered or notified to do so by the code official or his duly authorized representative shall be guilty of a separate offense for each and every day or portion thereof which any violation of any of the provisions of *this code* is committed or continued.

100.14 PENALTIES

The appropriate attorney representing the county in the district court may seek injunctive relief to prevent the violation or threatened violation of *this code*. The County shall deposit amounts collected under this section in a fund and for the purposes described by Texas Local Government Code 233.065(c). The appropriate attorney representing the county in civil cases may file a civil action in a court of competent jurisdiction to recover from a person who violates the fire code or fails to abate an order by the fire code official. The penalty may be in an amount not to exceed \$200.00 for each day on which the violation exists. In determining the amount of the penalty, the court shall consider the seriousness of the violation.

AMENDMENTS TO THE DENTON COUNTY FIRE CODE

The North Central Texas Council of Governments (NCTCOG) region reviews publications of the International Code Council® (ICC) and recommends amendments to the codes that are more consistent with the State of Texas and reflect local practices of the region. The North Central Texas Council of Governments (NCTCOG) Executive Board has endorsed the 2015 International Code Council® (ICC) Model Codes with regional amendments.

This code recognizes the NCTCOG recommended amendments to the 2015 Edition International Fire Code® in full and the sections, paragraphs, and sentences are a part of *this code* except as otherwise noted in this section. All recommended amendments by NCTCOG accepted by *this code* have been incorporated in this section of *this code*.

INTERNATIONAL FIRE CODE

Additions, Insertions, Deletions and Changes to the *International Fire Code*®, 2015 Edition.

CHAPTER 1 ADMINISTRATION

SECTION 101 SCOPE AND GENERAL REQUIREMENTS

101.1 Title. These regulations shall be known as the Denton County Fire Code, hereinafter may be referred to as “*this code*”.

SECTION 102 APPLICABILITY

102.1 Construction and design provisions. The construction and design provisions of this code shall apply to:

1. Structures, facilities and conditions arising after the adoption of this code.
2. Existing structures, facilities and conditions not legally in existence at the time of adoption of this code.
3. Existing structures, facilities, and conditions when required in Chapter 11 or in specific sections of this code.
4. Existing structures, facilities and conditions that, in the opinion of the fire code official, constitute a distinct hazard to life safety or property protection.

SECTION 105 PERMITS.

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

105.7.19 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 108 BOARD OF APPEALS

{Deleted in its entirety}.

Refer to the Denton County Fire Code, **100.11 Establishment of Board of Review** and its Duties and Powers.

CHAPTER 2 DEFINITIONS

SECTION 202 GENERAL DEFINITIONS

{changes, additions to General Definitions}

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
- Procedures involving sedation
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

APPROVED CONTAINER. Any non-combustible receptacle of sufficient integrity to maintain contents and fire in a controlled state.

ATRIUM. An opening connecting three or more stories other than enclosed stairways, elevators, hoistways, 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.

BUILDING. Any structure used or intended for supporting or sheltering any use or occupancy.

CUL-DE-SAC. A dead-end street with a turnaround at the closed end.

DEAD-ENDS. A street or alley that has no regular exit or outlet. A closed end street.

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

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

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.

Fireworks, 1.4G. Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion. Such 1.4G fireworks which comply with the construction, chemical composition and labeling regulations of the DOTn for Fireworks, UN 0336, and the U.S. Consumer Product Safety Commission as set forth in CPSC 16 CFR Parts 1500 and 1507, are not explosive materials for the purpose of this code.

Fireworks, 1.3G. Large fireworks devices, which are explosive materials, intended for use in fireworks displays and designed to produce audible or visible effects by combustion, deflagration or detonation. Such 1.3G fireworks include, but are not limited to, firecrackers containing more than 130 milligrams (2 grains) of explosive composition, aerial shells containing more than 40 grams of pyrotechnic composition and other display pieces which exceed the limits for classification as 1.4G fireworks. Such 1.3G fireworks are also described as Fireworks, UN 0335 by the DOTn.

HIGH-PILED COMBUSTIBLE STORAGE. Storage of combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet (3658 mm) in height. Where required by the fire code official, high-piled combustible storage also includes certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet (1829 mm) in height.

Any building classified as a group S Occupancy or Speculative Building exceeding 6,000 sq. ft. (557 4182 mm²) that has a clear height of 14 feet, making it possible to be used for storage in excess of 12 feet (3 6576 mm), shall be considered to be high-piled storage. When a specific product cannot be identified, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

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

NO BURN DAY. When atmospheric and/or ground conditions are unfavorable for controlled burning, for a 24 hour period beginning at sunrise, as determined by the Denton County Fire Marshal Office or a duly authorized agency.

ORDER OF RESTRICTING OUTDOOR BURNING. When the Denton County Commissioner's Court has determined that the circumstances present in the unincorporated area of the county create a public safety hazard that would be exacerbated by outdoor burning. The Order bans all outdoor burning in the unincorporated area of the county for seven (7) days from the date of adoption. Thereafter, the burn ban order is reviewed every seven days for consideration of continuing the burn ban or ceasing burning restrictions. This order does not prohibit outdoor burning activities related to public health and safety that are authorized by the Texas Commission on Environmental Quality for (1) firefighter training; (2) public utility, natural gas pipeline or mining operations; or (3) harvesting of agricultural crops.

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.

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

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

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

The following are not considered an upgrade or replacement:

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

CHAPTER 3 GENERAL REQUIREMENTS

SECTION 307 OPEN BURNING, RECREATIONAL FIRES AND PORTABLE OUTDOOR FIREPLACES

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

Exception:

Prescribed burning for the purpose of reducing the impact of wildland fire when authorized by the fire code official.

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

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

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

307.3 Extinguishment authority. Where open burning creates or adds to a hazardous or objectionable situation the fire code official, the fire department, or another person responsible may order the extinguishment of a fire or open burning operations.

The extinguishment of a fire may be ordered by the fire code official if the individual responsible does not have a permit or proper authorization from State, County, or Local authorities as listed in 307.2

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:

1. Fires in approved containers that are not less than 25 feet (7 62 mm) from a structure.
2. The minimum required distance from a structure shall be 50 feet (7 620 mm) where the pile size is 3 feet (9 14 mm) or less in diameter and 2 feet (6 10 mm) or less in height.

307.4.3 Portable outdoor fireplaces. Portable outdoor fireplaces shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet (4 572 mm) of a structure or combustible material.

Exceptions:

Portable outdoor fireplaces used at one- and two-family dwellings.

307.4.4 Permanent outdoor fire pit. Permanently installed outdoor fire pits for recreational fire purposes shall not be installed within 10 feet (3 048 mm) of a structure or combustible material.

Exception:

Permanently installed outdoor fireplaces constructed in accordance with the *International Building Code*[®].

307.4.5 Trench burns. Trench burns shall be conducted in air curtain trenches and in accordance with Section 307.2. Open trench burns shall not be conducted within 300 feet (91 44mm) of any structure or other combustible material.

307.5 Attendance. Open burning, trench burns, bonfires, 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 OPEN FLAMES

308.1.4 Open-flame cooking devices. Open-flame cooking devices, charcoal grills and other similar devices used for cooking shall not be located or used on combustible balconies, decks, or within 10 feet (3 048 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).

3. LP-gas cooking devices having LP-gas container with a water capacity not greater than 21/2 pounds [nominal 1 pound (0.454 kg) LP-gas capacity].

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

Exceptions:

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

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

SECTION 311 VACANT PREMISES

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, as required by Section 311.5.1 through 311.5.5.

CHAPTER 4 EMERGENCY PLANNING AND PREPAREDNESS

SECTION 403 EMERGENCY PREPAREDNESS REQUIREMENTS

403.5 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 Group E occupancies and an atrium. A diagram depicting two evacuation routes shall be posted in a conspicuous location in each classroom. Group E occupancies shall also comply with Sections 403.5.1 through 403.5.3.

SECTION 404 FIRE SAFETY, EVACUATION AND LOCKDOWN PLANS

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

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

- 4.3. Secondary evacuation routes.
- 4.4. Accessible egress routes.
 - 4.4.1. Areas of refuge.
 - 4.4.2. Exterior areas for assisted rescue.
- 4.5. Refuge areas associated with smoke barriers and horizontal exits.
- 4.6. Manual fire alarm boxes.
- 4.7. Portable fire extinguishers.
- 4.8. Occupant-use hose stations.
- 4.9. Fire alarm annunciators and controls.
- 4.10. Fire extinguishing system controls.
5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.

405.4 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.

CHAPTER 5 FIRE SERVICE FEATURES

SECTION 501 GENERAL

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 FIRE APPARATUS ACCESS ROADS

503.1.1 Building and facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility. Except for one- or two-family dwellings, the path of measurement shall be along a minimum of a 10 feet (3 048 mm) wide unobstructed pathway around the external walls of the structure.

Exceptions:

1. The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where any of the following conditions occur:
 - 1.1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.
 - 1.2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.

- 1.3. There are not more than two Group R-3 or Group U occupancies.
2. Where approved by the fire code official, fire apparatus access roads shall be permitted to be exempted or modified for solar photovoltaic power generation facilities.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7 315 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 (4 267 mm).

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

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.

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

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

(1) Striping – Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint 6 inches (152 mm) in width to show the boundaries of the lane. The words “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” shall appear in 4 inch (101.6 mm) white letters at 25 feet (7 62 mm) 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 inches (304.8 mm) wide and 18 inches (457.2 mm) high. Signs shall be painted on a white background with letters and borders in red, using not less than 2 inch (50.8 mm) lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (2 01168 mm) above finished grade. Signs shall be spaced not more than 50 feet (15 24 mm) 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.

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

SECTION 505 PREMISES IDENTIFICATION

505.1 Address identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 6 inches (152.4 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address numbers shall be

provided in additional approved locations to facilitate emergency response. Where access is by means of a private road, buildings do not immediately front a street, and/or the building cannot be viewed from the public way, a monument, pole or other sign with approved 6 inch (152.4 mm) height building numerals or addresses and 4 inch (101.6 mm) height suite/apartment numerals of a color contrasting with the background of the building or other approved means shall be used to identify the structure. Numerals or addresses shall be posted on a minimum 20 inch (508 mm) by 30 inch (762 mm) background on border. Address identification shall be maintained.

Exception: R-3 Single Family occupancies shall have approved numerals of a minimum 3 ½ 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 507 FIRE PROTECTION WATER SUPPLIES

507.4 Water supply test date and information. The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with NFPA 291 “Recommended Practice for Fire Flow Testing and Marking of Hydrants” and within one year of sprinkler plan submittal. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official, as required. 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.

507.5.4 Obstruction. Unobstructed access to fire hydrants shall be maintained at all times. Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department inlet connections or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

SECTION 509 FIRE PROTECTION AND UTILITY EQUIPMENT IDENTIFICATION AND ACCESS

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

CHAPTER 6 BUILDING SERVICES AND SYSTEMS

SECTION 603 FUEL-FIRED APPLIANCES

603.3.2.1 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 such tanks shall not exceed 660 gallons (2498 L).

Exceptions:

The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11,356 L) in accordance with all requirements of Chapter 57.

603.3.2.2 Restricted use and connection. Tanks installed in accordance with Section 603.3.2 shall be used only to supply fuel oil to fuel-burning or generator equipment installed in accordance with Section 603.3.2.4. Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

SECTION 604 EMERGENCY AND STANDBY POWER SYSTEMS

604.1.1 Stationary generators. Stationary emergency and standby power generators required by this code shall be listed in accordance with UL 2200.

604.1.2 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.

604.1.9 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.

604.2 Where required. Emergency and standby power systems shall be provided where required by Sections 604.2.1 through 604.2.24 or elsewhere identified in this code or any other referenced code.

604.2.4 Emergency voice/alarm communications systems. Emergency power shall be provided for emergency voice/alarm communications systems in the following occupancies, or as specified elsewhere in this code, as required in Section 907.5.2.2.5. The system shall be capable of powering the required load for a duration of not less than 24 hours, as required in NFPA 72.

- Covered and Open Malls, Section 907.2.20 and 914.2.3
- Group A Occupancies, Sections 907.2.1 and 907.5.2.2.4.
- Special Amusement Buildings, Section 907.2.12.3
- High-rise Buildings, Section 907.2.13
- Atriums, Section 907.2.14
- Deep Underground Buildings, Section 907.2.19

604.2.12 Means of egress illumination. Emergency power shall be provided for means of egress illumination in accordance with Sections 1008.3 and 1104.5.1. (90 minutes)

604.2.13 Membrane structures. Emergency power shall be provided for *exit* signs in temporary tents and membrane structures in accordance with Section 3103.12.6.1. (90 minutes) Standby power shall be provided for auxiliary inflation systems in permanent membrane structures in accordance with Section 2702 of the *International Building Code*[®]. (4 hours) Auxiliary inflation systems shall be provided in temporary air-supported and air-inflated membrane structures in accordance with section 3103.10.4.

604.2.15 Smoke control systems. Standby power shall be provided for smoke control systems in the following occupancies, or as specified elsewhere in this code, as required in Section 909.11:

- Covered Mall Building, *International Building Code*[®], Section 402.7
- Atriums, *International Building Code*[®], Section 404.7
- Underground Buildings, *International Building Code*[®], Section 405.8
- Group I-3, *International Building Code*[®], Section 408.4.2
- Stages, *International Building Code*[®], Section 410.3.7.2
- Special Amusement Buildings (applicable Group A), *International Building Code*[®], Section 411.1
- Smoke Protected Seating, Section 1029.6.2.1

604.2.17 Covered and open mall buildings. Emergency power shall be provided in accordance with Section 907.2.20 and 914.2.3.

604.2.18 Airport traffic control towers. A standby power system shall be provided in airport traffic control towers more than 65 ft. in height. Power shall be provided to the following equipment:

1. Pressurization equipment, mechanical equipment and lighting.
2. Elevator operating equipment.
3. Fire alarm and smoke detection systems.

604.2.19 Smokeproof enclosures and stair pressurization alternative. Standby power shall be provided for smokeproof enclosures, stair pressurization alternative and associated automatic fire detection systems as required by the *International Building Code*[®], Section 909.20.6.2.

604.2.20 Elevator pressurization. Standby power shall be provided for elevator pressurization system as required by the *International Building Code*[®], Section 909.21.5.

604.2.21 Elimination of smoke dampers in shaft penetrations. Standby power shall be provided when eliminating the smoke dampers in ducts penetrating shafts in accordance with the *International Building Code*[®], Section 717.5.3, exception 2.3.

604.2.22 Common exhaust systems for clothes dryers. Standby power shall be provided for common exhaust systems for clothes dryers located in multistory structures in accordance with the *International Mechanical Code*[®], Section 504.10, Item 7.

604.2.23 Hydrogen cutoff rooms. Standby power shall be provided for mechanical ventilation and gas detection systems of Hydrogen Cutoff Rooms in accordance with the *International Building Code*[®], Section 421.8.

604.2.24 Means of egress illumination in existing buildings. Emergency power shall be provided for means of egress illumination in accordance with Section 1104.5 when required by the fire code official. (90 minutes in I-2 Occupancies, 60 minutes all other Occupancies)

604.8 Energy time duration. Unless a time limit is specified by the fire code official, in this chapter or elsewhere in this code, or in any other referenced code or standard, the emergency and standby power system shall be supplied with enough fuel or energy storage capacity for not less than 2-hour full-demand operation of the system.

Exception:

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

SECTION 609 COMMERCIAL KITCHEN HOODS

609.2 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. A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m³ or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m³/s) in accordance with UL 710B.

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.

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

SECTION 704 FLOOR OPENINGS AND SHAFTS

704.1 Enclosure. Interior vertical shafts including, but not limited to, stairways, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of construction but, regardless of when constructed, not less than as required in Chapter 11. New floor openings in existing buildings shall comply with the *International Building Code*[®].

CHAPTER 8 INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

SECTION 807 DECORATIVE MATERIALS OTHER THAN DECORATIVE VEGETATION IN NEW AND EXISTING BUILDINGS

807.3 Combustible decorative materials. In occupancies in Groups A, E, I, and R-1, and dormitories in Group R-2, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from walls or ceilings shall comply with Section 807.4 and shall not exceed 10 percent of the specific wall or ceiling area to which they are attached.

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

Exception:

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

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

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

Exception:

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

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

CHAPTER 9 FIRE PROTECTION SYSTEMS

SECTION 901 GENERAL

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

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

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

901.6.3 False alarms and nuisance alarms. False alarms and nuisance alarms shall not be signaled, transmitted, caused, or permitted to be given, signaled or transmitted in any manner.

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

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

901.8.2 Removal of existing occupant-use hose lines. The fire code official is authorized to permit the removal of occupant-use hose lines and hose valves where all of the following conditions exist:

1. The hose line(s) would not be utilized by trained personnel or the fire department.
2. If the occupant-use hose lines are removed, but the hose valves are required to remain as per the fire code official, such shall be compatible with local fire department fittings.

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

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

903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. 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.”

Exception: {deleted}

903.2.9.3 Self-service storage facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities.

Exception:

1. Unit size no more than 10x20x12, with a building length not to exceed 110 feet (33 528 mm) and,
2. The building in single compartment depths and,
3. No electrical outlets or connections, except for interior lighting and,
4. Units separated with walls floor to deck, sealed, and no common attic and,
5. No vehicular storage such as autos, RV’s, boats, or motorized units fuel gas or electrical and,
6. Fire Lane access on all sides of the structure.

903.2.11.3 Buildings 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories, other than penthouses in compliance with Section 1510 of the *International Building Code*[®], located 35 feet (10 668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exception:

1. Open parking structures in compliance with Section 406.5 of the *International Building Code*[®], having no other occupancies above the subject garage.

903.2.11.9 Buildings over 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area 6,000 sq. ft. (557 4182 mm²) or greater and in all existing buildings that are enlarged to be 6,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

Exceptions:

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

903.3.1.1.1 Exempt locations. When approved by the fire code official automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from a room merely because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.

4. Elevator machine rooms, and machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.

903.3.1.2.3 Attics and attached garages. Sprinkler protection is required in attic spaces of such buildings two or more stories in height, in accordance with NFPA 13 and or NFPA 13R requirements, and attached garages.

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

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

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

Exception:

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

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

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

903.3.5 Water supplies. Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section and the International Plumbing Code. For connections to public waterworks systems, the water supply test used for design of fire protection systems shall be adjusted to account for seasonal and daily pressure fluctuations based on information from the water supply authority and as approved by the fire code official.

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

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

Exceptions:

1. Automatic sprinkler systems protecting one and two family dwellings.
2. Limited area sprinkler systems in accordance with Section 903.3.8.

3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of 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.

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

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

SECTION 905 STANDPIPE SYSTEMS

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.

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 (60 96 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.

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

1. In every required interior exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at an intermediate landing between stories, unless otherwise approved by the fire code official.
2. On each side of the wall adjacent to the exit opening of a horizontal exit.
3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from an interior exit stairway hose connection by a {no change to rest of paragraph}

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall. In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.
5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a 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. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60 960 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations.
7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at 200 feet (60 96 mm) intervals along major corridors thereafter, or as otherwise approved by the fire code official.

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

Exceptions:

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

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for 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 907 FIRE ALARM AND DETECTION SYSTEMS

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.

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

Exception:

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

Activation of fire alarm notification appliances shall:

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

907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100 feet (30 48 mm) 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. A manual fire alarm system is not required in Group E occupancies with an occupant load of 50 or less.
 - 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 ½ or less years of age, see Section 907.2.6.)
2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.
3. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
 - 3.1. Interior corridors are protected by smoke detectors.
 - 3.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.
 - 3.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
4. Manual fire alarm boxes shall not be required in Group E occupancies where all of the following apply:
 - 4.1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.
 - 4.2. The emergency voice/alarm communication system will activate on sprinkler water flow.
 - 4.3. Manual activation is provided from a normally occupied location.

907.2.13 High-rise buildings. High-rise buildings shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 of this code and Section 412 of the International Building Code.
2. Open parking garages in accordance with Section 406.5 of the International Building Code.
3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*[®], however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants, and similarly enclosed areas.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the International Building Code.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the International Building Code.
6. In Group I-1 and I-2 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system. {exception 3; change to read as follows }

907.4.2 Manual fire alarm boxes.

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

907.6 Installation and monitoring. A fire alarm system shall be installed and monitored in accordance with Sections 907.6.1 through 907.6.6.2 and NFPA 72.

907.6.1 Wiring. Wiring shall comply with the requirements of NFPA 70 and NFPA 72. Wireless protection systems utilizing radio-frequency transmitting devices shall comply with the special requirements for supervision of low-power wireless systems in NFPA 72.

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.

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

Exception: *{deleted}*

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

SECTION 909 SMOKE CONTROL SYSTEMS

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 International Building Code® or horizontal assemblies constructed in accordance with Section 711 of the International 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 International 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.

909.21.1.2 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 International 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 SMOKE AND HEAT REMOVAL

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

Exceptions:

1. Frozen food warehouses used solely for storage of Class I and II commodities where protected by an approved automatic sprinkler system.
2. Only manual smoke and heat removal shall not be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.
3. Only manual smoke and heat removal shall not be required in areas of buildings equipped with control mode special application sprinklers with a response time index of $50(m \cdot S)^{1/2}$ or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

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 I 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.

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 Nonsprinklered 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.

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.

910.4.4 Activation. The mechanical smoke removal system shall be activated automatically by the automatic sprinkler system or by an approved fire detection system. Individual manual controls shall also be provided.

Exception:

Manual only systems per Section 910.2.

SECTION 912 FIRE DEPARTMENT CONNECTIONS

912.2.3 Hydrant distance. An approved fire hydrant shall be located within 100 feet (30 48 mm) of the fire department connection as the fire hose lays along an unobstructed path.

SECTION 913 FIRE PUMPS

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

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 feet (9144 mm) in width and 6 feet 8 inches (2 0726 mm) 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.

SECTION 914 FIRE PROTECTION BASED ON SPECIAL DETAILED REQUIREMENTS OF USE AND OCCUPANCY

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

Exception:

Two connections to the same main shall be permitted provided the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through no fewer than one of the connections.

CHAPTER 10 MEANS OF EGRESS

SECTION 1006 NUMBERS OF EXITS AND EXIT ACCESS DOORWAYS

1006.2.2.6 Electrical rooms. For electrical rooms, special exiting requirements may apply. Reference the NFPA 70 National Electric Code® as adopted.

SECTION 1009 ACCESSIBLE MEANS OF EGRESS

1009.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress is required by Section 1006.2 or 1006.3 from an accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

Exceptions:

1. Accessible means of egress are not required to be provided in existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1009.3, 1009.4 or 1009.5.
3. In assembly areas with ramped aisles or stepped aisles, one accessible means of egress is permitted where the common path of travel is accessible and meets the requirements in Section 1029.8.
4. Buildings regulated under State Law and built in accordance with State registered plans, including any variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1009.

SECTION 1010 DOORS, GATES, AND TURNSTILES

1010.1.9.4 Bolt locks. Manually operated flush bolts or surface bolts are not permitted.

Exceptions:

1. On doors not required for egress in individual dwelling units or sleeping units.
2. Where a pair of doors serves a storage or equipment room, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf.
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 provided such inactive leaf is not needed to meet egress capacity requirements and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The inactive leaf shall not contain 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 provided such inactive leaf is not needed to meet egress capacity requirements and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.
5. Where a pair of doors serves patient care rooms in Group I-2 occupancies, self-latching edge- or surface-mounted bolts are permitted on the inactive leaf provided that the inactive leaf is not needed to meet egress capacity requirements and the inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.

SECTION 1015 GUARDS

Section 1015.8 Window openings. Windows in Group R-2 and R-3 buildings including dwelling units, where the top of the sill of an operable window opening is located less than 36 inches above the finished

floor and more than 72 inches (1 829 mm) above the finished grade or other surface below on the exterior of the building, shall comply with one of the following:

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.
2. Operable windows where the openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position.
3. Operable windows where the openings are provided with window fall prevention devices that comply with ASTM F 2090.
4. Operable windows that are provided with window opening control devices that comply with Section 1015.8.1.

SECTION 1020 CORRIDORS

1020.1 Construction. Corridors shall be fire-resistance rated in accordance with Table 1020.1. The corridor walls required to be fire-resistance rated shall comply with Section 708 of the International Building Code for fire partitions.

Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has not less than one door opening directly to the exterior and rooms for assembly purposes have not less than one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a dwelling unit or sleeping unit in an occupancy in Groups I-1 and R.
3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in a Group B Occupancy that is a space requiring only a single means of egress complying with Section 1006.2.
5. Corridors adjacent to the exterior walls of buildings shall be permitted to have unprotected openings on unrated exterior walls where unrated walls are permitted by Table 602 of the International Building Code and unprotected openings are permitted by Table 705.8 of the International Building Code.
6. In group B occupancies, corridor walls and ceilings need not be of fire-resistive construction within a single tenant space when the space is equipped with approved automatic smoke-detection within the corridor. The actuation of any detector shall activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors shall be connected to an approved automatic fire alarm system where such system is provided.

SECTION 1029 ASSEMBLY

1029.1.1.1 Spaces under grandstands and bleachers. {deleted in its entirety}

SECTION 1031 MAINTENANCE OF THE MEANS OF EGRESS

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.

CHAPTER 11 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

SECTION 1103 FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDINGS

1103.3 Existing elevators. Existing elevators, escalators, and moving walks shall comply with the requirements of section 1103.3.1 and 1103.3.2. Provide emergency signage as required by Section 607.3.

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.

CHAPTER 23 MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES

SECTION 2304 DISPENSING OPERATIONS

2304.1 Supervision of dispensing. The dispensing of fuel at motor fuel-dispensing facilities shall be in accordance with Section 2204.3.

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.

CHAPTER 24 FLAMMABLE FINISHES

SECTION 2401 GENERAL

2401.2 Nonapplicability. *{deleted in its entirety}*

CHAPTER 32 HIGH-PILED COMBUSTIBLE STORAGE

SECTION 3206 GENERAL FIRE PROTECTION AND LIFE SAFETY FEATURES

3206.2 Extent and type of protection.

Table 3206.2 GENERAL FIRE PROTECTION AND LIFE SAFETY REQUIREMENTS

{footnotes a through i remain unchanged}

{footnote j; changed to read as follows}

j. 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.

CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

SECTION 3310 ACCESS FOR FIRE FIGHTING

3310.1 Required access. Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet (30 480 mm) of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

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

CHAPTER 56 EXPLOSIVES AND FIREWORKS

SECTION 5601 SCOPE

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. Manufacture, assembly and testing of fireworks as allowed in Section 5605.
3. The use of fireworks for approved fireworks displays as allowed in Section 5608.
4. The possession, storage, sale, and use as allowed by State Law in the unincorporated areas of the County.

CHAPTER 57 FLAMMABLE AND COMBUSTIBLE LIQUIDS

SECTION 5703 GENERAL REQUIREMENTS

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

SECTION 5704 STORAGE

5704.2.9.5 Above-ground tanks inside of buildings. Above-ground tanks inside of buildings shall comply with Section 5704.2.9.5.1 through 5704.2.9.5.3.

5704.2.9.5.1 Overfill prevention. Above-ground tanks storing Class I, II and IIIA liquids inside buildings shall be equipped with a device or other means to prevent overflow into the building including, but not limited to: a float valve; a preset meter on the fill line; a valve actuated by the weight of the tank's contents; a low-head pump that is incapable of producing overflow; or a liquid-tight overflow pipe not less than one pipe size larger than the fill pipe and discharging by gravity back to the outside source of liquid or to an approved location. Tanks containing Class IIIB liquids and connected to fuel-burning equipment shall be provided with a means to prevent overflow into buildings in accordance with Section 5704.2.7.5.8.

5704.2.9.5.2 Fill pipe connections. Fill pipe connections for tanks storing Class I, II and IIIA liquids and Class IIIB liquids connected to fuel-burning equipment shall be in accordance with Section 5704.2.9.7.7.

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

1. The entire 3,000 gallon (11 356 L) quantity shall be stored in protected above-ground tanks;
2. The 3,000 gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks;
3. The tanks shall be located in a room protected by an automatic sprinkler system complying with Section 903.3.1.1; and
4. Tanks shall be connected to fuel-burning equipment, including generators, utilizing an *approved* closed piping system.

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

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.

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.

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

CHAPTER 61 LIQUEFIED PETROLEUM GASES

SECTION 6103 INSTALLATION OF EQUIPMENT

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

SECTION 6104 LOCATION OF LP-GAS CONTAINERS

6104.2 Maximum capacity within established limits. Within the limits established by law restricting the storage of liquefied petroleum gas for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not exceed a water capacity of 2,000 gallons (7570 L)

Exceptions:

1. In particular installations, this capacity limit shall be determined by the fire code official, after consideration of special features such as topographical conditions, nature of occupancy, and proximity to buildings, capacity of proposed LP-gas containers, degree of fire protection to be provided and capabilities of the local fire department.
2. Except as permitted in Sections 308 and 6104.3.2, LP-gas containers are not permitted in residential areas.

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 SAFETY PRECAUTIONS AND DEVICES

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 STORAGE OF PORTABLE LP-GAS CONTAINERS AWAITING USE OR RESALE

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.

APPENDIX B FIRE-FLOW REQUIREMENTS FOR BUILDINGS

Table B105.2 REQUIRED FIRE-FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

{change footnote a. to read as follows}

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

APPENDIX D FIRE APPARATUS ACCESS ROADS

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

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

Where required by the fire code official, fire apparatus access roads shall be marked with signs and/or striping as follows:

Signs. Permanent signs with the words “NO PARKING FIRE LANE” complying with Figure D103.6. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2.

Striping. Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint 6 inches (152.4 mm) in width to show the boundaries of the lane. The words "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" shall appear in 4 inch (101.6 mm) white letters at 25 feet (7 62 mm) 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.

The amendments to the 2009 International Building code® are recognized in this code to avoid conflicts between the International Fire Code® (IFC) and the International Building Code® (IBC). Technical sections of the fire code and building code are duplicated to maintain their compatibility and similarity in specific chapters regarding fire protection. This code recognizes the NCTCOG recommended amendments to the 2009 International Building Code® in full and the sections, paragraphs, and sentences are a part of this code except as otherwise noted in this section.

INTERNATIONAL BUILDING CODE

Additions, Insertions, Deletions and Changes to the *International Building Code*®, 2015 Edition

CHAPTER 1 SCOPE AND ADMINISTRATION

SECTION 101 GENERAL

101.1 Title. These regulations shall be known as a part of the Denton County Fire Code, hereinafter referred to as “*this code*”.

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

101.4 Referenced codes. The other codes listed in Sections 101.4.1 through 101.4.8 and referenced elsewhere in this code, when specifically adopted, shall be considered part of the requirements of this code to the prescribed extent of each such reference. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the Electrical Code shall mean the Electrical Code as adopted.

SECTION 103 DEPARTMENT OF BUILDING SAFETY

Deleted in its entirety. This section will refer to the Fire Code Official.

SECTION 104 DUTIES AND POWER OF BUILDING OFFICIAL

Deleted in its entirety. This section will refer to the Fire Code Official.

All further references made in regards to the Building Official will be replaced with Fire Code Official and their powers and duties.

SECTION 105 PERMITS

105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. Oil derricks.
2. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
3. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2:1.

Exception: Fire protection storage and equipment.

4. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or story below and are not part of an accessible route.
5. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
6. Temporary motion picture, television and theater stage sets and scenery.
7. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, are not greater than 5,000 gallons (18 925 L) and are installed entirely above ground.
8. Swings and other playground equipment accessory to detached one- and two-family dwellings.
9. Window awnings in Group R-3 and U occupancies, supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

SECTION 109 FEES

109.7 Re-inspection fee. A fee as established by Commissioner's Court resolution may be charged when:

1. The inspection called for is not ready when the inspector arrives;
2. No building address or permit card is clearly posted;
3. County approved plans are not on the job site available to the inspector;
4. The building is locked or work otherwise not available for inspection when called;
5. The job site is red-tagged twice for the same item;
6. The original red tag has been removed from the job site.
7. Failure to maintain erosion control, trash control or tree protection.

Any re-inspection fees assessed shall be paid before any more inspections are made on that job site.

109.8 Work without a permit.

109.8.1 Investigation. Whenever work for which a permit is required by *this code* has been commenced without first obtaining a permit, a special investigation shall be made before a permit may be issued for such work.

109.8.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by *this code* or the Denton County Permit Fee Schedule as applicable. The payment of such investigation fee shall not exempt the applicant from compliance with all other provisions of either *this code* or the technical codes nor from penalty prescribed by law.

109.9 Unauthorized cover up fee. Any work concealed without first obtaining the required inspection in violation of Section 110 shall be assessed a fee as established by the Denton County Permit Fee Schedule.

SECTION 110 INSPECTIONS

110.3.5 Lath, gypsum board and gypsum panel product inspection. Lath, gypsum board and gypsum panel product inspections shall be made after lathing, gypsum board and gypsum panel products, interior and exterior, are in place, but before any plastering is applied or gypsum board and gypsum panel product joints and fasteners are taped and finished.

Exception: {deleted}

SECTION 113 BOARD OF APPEALS

Deleted in its entirety.

Refer to the Denton County Fire Code, **100.11 Establishment of Board of Review**, and its Duties and Powers

CHAPTER 2 DEFINITIONS

SECTION 202 DEFINITIONS

{additions or changes to Definitions}

AMBULATORY CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to individuals 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 dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

ASSISTED LIVING FACILITIES. A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff.

ATRIUM. An opening connecting three or more stories other than enclosed stairways, elevators, hoistways, 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.

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.

SPECIAL INSPECTOR. A qualified person employed or retained by an approved agency shall prove to the satisfaction of the registered design professional in responsible charge and the fire code official as having the competence necessary to inspect a particular type of construction requiring special inspection.

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

CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

SECTION 303 ASSEMBLY GROUP A

303.1.3 Associated with Group E occupancies. A room or space used for assembly purposes that is associated with a Group E occupancy is not considered a separate occupancy. Except when applying the assembly requirements of Chapter 10 and 11.

SECTION 307 HIGH-HAZARD GROUP H

Section 307.1.1 Uses other than Group H. An occupancy that stores, uses, or handles hazardous materials as described in one or more of the following items shall not be classified as Group H, but shall be classified as the occupancy that it most nearly resembles.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the International Fire Code.

2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the International Fire Code.
3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment listed by an approved testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour fire barriers constructed in accordance with Section 707 or 1 hour horizontal assemblies constructed in accordance with Section 711, or both. See also IFC Chapter 21, Dry Cleaning Plant provisions.
5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries utilized for facility emergency power, uninterruptable power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and ventilation is provided in accordance with the International Mechanical Code.
10. Corrosive personal or household products in their original packaging used in retail display.
11. Commonly used corrosive building materials.
12. Buildings and structures occupied for aerosol storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the International Fire Code.
13. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per control area in Group M or S occupancies complying with Section 414.2.5.
14. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the International Fire Code.

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

SECTION 403 HIGH-RISE BUILDINGS

403.1 Applicability. High-rise buildings shall comply with Sections 403.2 through 403.6.

Exception:

The provisions of Sections 403.2 through 403.6 shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with Section 412.3.
2. Open parking garages in accordance with Section 406.5.
3. The open air portion of a building containing a Group A-5 occupancy in accordance with Section 303.6.
4. Special industrial occupancies in accordance with Section 503.1.1.
5. Buildings with:
 - 5.1. A Group H-1 occupancy;
 - 5.2. A Group H-2 occupancy in accordance with Section 415.8, 415.9.2, 415.9.3 or 426.1; or,
 - 5.3. A Group H-3 occupancy in accordance with Section 415.8.

403.3 Automatic sprinkler system. Buildings and structures shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and a secondary water supply where required by Section 403.3.3.

Exception:

An automatic sprinkler system shall not be required in spaces or areas of:

1. Open parking garages in accordance with Section 406.5.

403.3.2 Water supply to required fire pumps. In buildings that are more than 120 feet (36 576 mm) in building height, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception:

Two connections to the same main shall be permitted provided the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through no fewer than one of the connections.

SECTION 404 ATRIUMS

404.5 Smoke control. A smoke control system shall be installed in accordance with Section 909.

Exception: {deleted}

SECTION 406 MOTOR-VEHICLE RELATED OCCUPANCIES

406.3.5.1 Carport separation. A separation is not required between a Group R-3 and U carport, provided the carport is entirely open on two or more sides and there are not enclosed areas above.

A fire separation is not required between a Group R-2 and U carport provided that the carport is entirely open on all sides and that the distance between the two is at least 10 feet (3 048 mm).

CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

SECTION 506 BUILDING AREA

506.3.2.1 Open space limits. Such open space shall be either on the same lot or dedicated for public use and shall be accessed from a street or approved fire lane. In order to be considered as accessible, if not in direct contact with a street or fire lane, a minimum 10-foot wide pathway meeting fire department access from the street or approved fire lane shall be provided.

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

SECTION 712 VERTICAL OPENINGS

712.1.9 Two story openings. In other than Groups I-2 and I-3, a vertical opening that is not used as one of the applications listed in this section shall be permitted if the opening complies with all of the items below:

1. Does not connect more than two stories.
2. Does not penetrate a horizontal assembly that separates fire areas or smoke barriers that separate smoke compartments.
3. Is not concealed within the construction of a wall or a floor/ceiling assembly.
4. Is not open to a corridor in Group I and H occupancies.
5. Is not open to a corridor on nonsprinklered floors.
6. Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.

CHAPTER 9 FIRE PROTECTION SYSTEMS

SECTION 901 GENERAL

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

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed when foreign material is present, and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.
2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the *fire code official*) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.
3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the fire code official.
5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.
6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (*fire code official*) shall be followed.
7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.
8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.
9. Contact the fire code official for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the fire code official.

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

903.1.1 Alternative protection. Alternative automatic fire-extinguishing systems complying with Section 904 may be permitted instead of automatic sprinkler protection where recognized by the applicable standard and/or as approved by the fire code official.

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

Exception: *{deleted}*

903.2.9.3 Self-service storage facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities.

Exception:

1. Unit size no more than 10x20x12, with a building length not to exceed 110 feet (33 528 mm) and,
2. The building in single compartment depths and,
3. No electrical outlets or connections, except for interior lighting and,
4. Units separated with walls floor to deck, sealed, and no common attic and,
5. No vehicular storage such as autos, RV’s, boats, or motorized units fuel gas or electrical and,
6. Fire Lane access on all sides of the structure.

903.2.11.3 Buildings 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories, other than penthouses in compliance with Section 1510 of the *International Building Code*[®], located 35 feet (10 668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exception:

1. Open parking structures in compliance with Section 406.5 of the *International Building Code*[®], having no other occupancies above the subject garage.

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

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

903.2.11.9 Buildings over 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area 6,000 sq. ft. (557 4182 mm²) or greater and in all existing buildings that are enlarged to be 6,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

Exceptions:

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

903.3.1.1.1 Exempt locations. When approved by the fire code official, automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from a room merely because it is damp, of fire-resistance-rated construction or contains electrical equipment.

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

Section 903.3.1.2.3 Attics and attached garages. Sprinkler protection is required in attic spaces of such buildings two or more stories in height, in accordance with NFPA 13 and or NFPA 13R requirements, and attached garages.

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

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

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

Exceptions:

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

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

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

903.3.5 Water supplies. Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section and the International Plumbing Code. For connections to public waterworks systems, the water supply test used for design of fire protection systems shall be adjusted to account for seasonal and daily pressure fluctuations based on information from the water supply authority and as approved by the fire code official.

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

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

Exceptions:

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area sprinkler systems in accordance with Section 903.3.8.
3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of 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.

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

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

SECTION 905 STANDPIPE SYSTEMS

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.

905.3.9 Buildings exceeding 10,000 sq. ft. In buildings exceeding 10,000 (929 0304 mm²) square feet in area per story and where any portion of the building's interior area is more than 200 feet (60 960 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.

905.4 Location of Class I standpipe hose connections.

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

1. In every required interior exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at an intermediate landing between stories, unless otherwise approved by the fire code official.
2. On each side of the wall adjacent to the exit opening of a horizontal exit.
3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception:

Where floor areas adjacent to an exit passageway are reachable from an interior exit stairway hose connection by a 30 foot (9 144mm) hose stream from a nozzle attached to 100 feet (30 48 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall. In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.
5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a 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. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60 960 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations.
7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at 200 feet (60 96 mm) intervals along major corridors thereafter, or as otherwise approved by the fire code official.

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

Exceptions:

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

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for 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 907 FIRE ALARM AND DETECTION SYSTEMS

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.

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:

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

Activation of fire alarm notification appliances shall:

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

907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100 foot (30 48 mm) 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. A manual fire alarm system is not required in Group E occupancies with an occupant load of 50 or less.
 - 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.)
2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.
3. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
 - 3.1. Interior corridors are protected by smoke detectors.
 - 3.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.
 - 3.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
4. Manual fire alarm boxes shall not be required in Group E occupancies where all of the following apply:

- 4.1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.
- 4.2. The emergency voice/alarm communication system will activate on sprinkler waterflow.
- 4.3. Manual activation is provided from a normally occupied location.

907.2.13 High-rise buildings. High-rise buildings shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Sections 412 and 907.2.22.
2. Open parking garages in accordance with Section 406.5.
3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*[®]. However, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants, and similarly enclosed areas.
4. Low-hazard special occupancies in accordance with Section 503.1.1.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.
6. In Group I-1 and I-2 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system.

907.4.2 Manual fire alarm boxes.

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

907.6 Installation and monitoring.

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.

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

Exceptions: *{delete all four exceptions}*

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

909 SMOKE CONTROL SYSTEMS

909.21.1.2 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 International Building Code®.

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 International Building Code® or horizontal assemblies constructed in accordance with Section 711 of the International 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 International 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 system with a fire-resistance rating of not less than 2 hours.

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 SMOKE AND HEAT REMOVAL

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

Exceptions:

1. Frozen food warehouses used solely for storage of Class I and II commodities where protected by an approved automatic sprinkler system.
2. Only manual smoke and heat removal shall not be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.
3. Only manual smoke and heat removal shall not be required in areas of buildings equipped with control mode special application sprinklers with a response time index of $50(m \cdot S)^{1/2}$ or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

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.

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 Nonsprinklered 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.

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.

910.4.4 Activation. The mechanical smoke removal system shall be activated automatically by the automatic sprinkler system or by an approved fire detection system. Individual manual controls shall also be provided.

Exception:

Manual only systems per Section 910.2.

SECTION 912 FIRE DEPARTMENT CONNECTIONS

912.2.3 Hydrant distance. An approved fire hydrant shall be located within 100 feet (30 48 mm) of the fire department connection as the fire hose lays along an unobstructed path.

SECTION 913 FIRE PUMPS

913.2.1 Protection of fire pump rooms. Fire pumps shall be located in rooms that are separated from all other areas of the building by 2-hour fire barriers constructed in accordance with Section 707 or 2-hour horizontal assemblies constructed in accordance with Section 711, or both.

Exceptions:

1. In other than high-rise buildings, separation by 1-hour fire barriers constructed in accordance with Section 707 or 1-hour horizontal assemblies constructed in accordance with Section 711, or both, shall be permitted in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Separation is not required for fire pumps physically separated in accordance with NFPA 20.

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 (9144 mm x 2 0726 mm), 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.

CHAPTER 10 MEANS OF EGRESS

SECTION 1006 NUMBERS OF EXITS AND EXIT ACCESS DOORWAYS

1006.2.2.6 Electrical rooms. For electrical rooms, special exiting requirements may apply. Reference the NFPA 70 National Electric Code[®] as adopted.

SECTION 1009 ACCESSIBLE MEANS OF EGRESS

1009.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by Section 1006.2 or 1006.3 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

Exceptions:

1. Accessible means of egress are not required to be provided in existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1009.3, 1009.4 or 1009.5.
3. In assembly areas with ramped aisles or stepped aisles, one accessible means of egress is permitted where the common path of egress travel is accessible and meets the requirements in Section 1029.8.
4. Buildings regulated under State Law and built in accordance with State registered plans, including any variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1009.

SECTION 1010 DOORS, GATES, AND TURNSTILES

1010.1.9.4 Bolt locks. Manually operated flush bolts or surface bolts are not permitted.

Exceptions:

1. On doors not required for egress in individual dwelling units or sleeping units.
2. Where a pair of doors serves a storage or equipment room, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf.
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 not contain 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 provided such inactive leaf is not needed to meet egress capacity requirements and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.
5. Where a pair of doors serves patient care rooms in Group I-2 occupancies, self-latching edge- or surface-mounted bolts are permitted on the inactive leaf provided that the inactive leaf is not needed to meet egress capacity requirements and the inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.

SECTION 1015 GUARDS

1015.8 Window openings. Windows in Group R-2 and R-3 buildings including dwelling units, where the top of the sill of an operable window opening is located less than 36 inches above the finished floor and more than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, shall comply with one of the following:

1. Operable windows where the top of the sill of the opening is located more than 55 feet (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.

2. Operable windows where the openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position.
3. Operable windows where the openings are provided with window fall prevention devices that comply with ASTM F 2090.
4. Operable windows that are provided with window opening control devices that comply with Section 1015.8.1.

SECTION 1020 CORRIDORS

1020.1 Construction. Corridors shall be fire-resistance rated in accordance with Table 1020.1. The corridor walls required to be fire-resistance rated shall comply with Section 708 for fire partitions.

Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has not less than one door opening directly to the exterior and rooms for assembly purposes have not less than one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a dwelling unit or sleeping unit in an occupancy in Groups I-1 and R.
3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in an occupancy in Group B that is a space requiring only a single means of egress complying with Section 1006.2.
5. Corridors adjacent to the exterior walls of buildings shall be permitted to have unprotected openings on unrated exterior walls where unrated walls are permitted by Table 602 and unprotected openings are permitted by Table 705.8.
6. In group B occupancies, corridor walls and ceilings need not be of fire-resistive construction within a single tenant space when the space is equipped with approved automatic smoke-detection within the corridor. The actuation of any detector shall activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors shall be connected to an approved automatic fire alarm system where such system is provided.

SECTION 1029 ASSEMBLY

1029.1.1.1 Spaces under grandstands and bleachers. *{delete this section}*

CHAPTER 11 ACCESSIBILITY

SECTION 1101 GENERAL

Section 1101.1 Scope. The provisions of this chapter shall control the design and construction of facilities for accessibility for individuals with disabilities.

Exception:

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

CHAPTER 12 INTERIOR ENVIRONMENT

SECTION 1203 VENTILATION

1203.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the *International Mechanical Code*[®].

Where air infiltration rate in a dwelling unit is 5 air changes or less per hour when tested with a blower door at a pressure 0.2 inch w.c. (50 Pa) in accordance with Section 402.4.1.2 of the *International Energy Conservation Code*[®], the dwelling unit shall be ventilated by mechanical means in accordance with Section 403 of the *International Mechanical Code*[®].

CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

SECTION 1505 FIRE CLASSIFICATION

Table 1505.1 Minimum roof covering classification for types of construction. Roof assemblies shall be divided into the classes defined below. Class A, B and C roof assemblies and roof coverings required to be listed by this section shall be tested in accordance with ASTM E 108 or UL 790. In addition, fire-retardant-treated wood roof coverings shall be tested in accordance with ASTM D 2898. The minimum roof coverings installed on buildings shall comply with Table 1505.1 based on the type of construction of the building.

Exception:

Skylights and sloped glazing that comply with Chapter 24 or Section 2610.

{delete footnote c and replace footnote b with the following}

b. Non-classified roof coverings shall be permitted on buildings of U occupancies having not more than 120 sq. ft. of protected roof area. When exceeding 120 sq. ft. of protected roof area, buildings of U occupancies may use non-rated non-combustible roof coverings.

c. {delete}

1505.7 Requirements for roof covering. *{delete the section}*

SECTION 1510 ROOFTOP STRUCTURES

1510.1 General. The provisions of this section shall govern the construction of rooftop structures.

Materials and methods of applications used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15. All individual replacement shingles or shakes shall be in compliance with the rating required by Table 1505.1.

CHAPTER 17 SPECIAL INSPECTIONS AND TESTS

SECTION 1704 SPECIAL INSPECTIONS AND TESTS, CONTRACTOR RESPONSIBILITY AND STRUCTURAL OBSERVATION

1704.2 Special inspections and tests. Where application is made to the fire code official for construction as specified in Section 105, the owner or the owner's authorized agent, or the registered design professional in responsible charge, other than the contractor, shall employ one or more approved agencies to provide special inspections and tests during construction on the types of work listed under

Section 1705 and identify the approved agencies to the fire code official. The special inspector shall not be employed by the contractor. These special inspections and tests are in addition to the inspections identified by the fire code official that are identified in Section 110.

Exceptions:

1. Special inspections and tests are not required for construction of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official.
2. Unless otherwise required by the building official, special inspections and tests are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.
3. Special inspections and tests are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light-frame construction provisions of Section 2308.
4. The contractor is permitted to employ the approved agencies where the contractor is also the owner.

1704.2.1 Special inspector qualifications. Prior to the start of construction and or upon request, the approved agencies shall provide written documentation to the registered design professional in responsible charge and the fire code official demonstrating the competence and relevant experience or training of the special inspectors who will perform the special inspections and tests during construction. Experience or training shall be considered relevant where the documented experience or training is related in complexity to the same type of special inspection or testing activities for projects of similar complexity and material qualities. These qualifications are in addition to qualifications specified in other sections of this code.

The registered design professional in responsible charge and engineers of record involved in the design of the project are permitted to act as the approved agency and their personnel are permitted to act as special inspectors for the work designed by them, provided they qualify as special inspectors.

1704.2.4 Report requirement. Approved agencies shall keep records of special inspections and tests. The approved agency shall submit reports of special inspections and tests to the fire code official upon request, and to the registered design professional in responsible charge. Individual inspection reports shall indicate that work inspected or tested was or was not completed in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the building official and to the registered design professional in responsible charge prior to the completion of that phase of the work. A final report documenting required special inspections and tests, and correction of any discrepancies noted in the inspections or tests, shall be submitted at a point in time agreed upon prior to the start of work by the owner or the owner's authorized agent to the building official.

1704.2.5 Special inspection of fabricated items.

Where fabrication of structural, load-bearing or lateral load-resisting members or assemblies is being conducted on the premises of a fabricator's shop, special inspections of the fabricated items shall be performed during fabrication.

Exceptions:

1. Special inspections during fabrication are not required where the fabricator maintains approved detailed fabrication and quality control procedures that provide a basis for control of the workmanship and the fabricator's ability to conform to approved construction documents and this

code. Approval shall be based upon review of fabrication and quality control procedures and periodic inspection of fabrication practices by the building official.

2. Special inspections are not required where the fabricator is registered and approved in accordance with Section 1704.2.5.1.

1704.2.5.1 Fabricator approval. Special inspections during fabrications required by Section 1704 are not required where the work is done on the premises of a fabricator registered and approved to perform such work without special inspection. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved agency, or a fabricator that is enrolled in a nationally accepted inspections program. At completion of fabrication, the acceptable or approved fabricator shall submit a certificate of compliance to the owner or the owner's authorized agent or the registered design professional in responsible charge stating that the work was performed in accordance with the approved construction documents. The certificate of compliance shall also be made available to the fire code official upon request.

CHAPTER 29 PLUMBING SYSTEMS

SECTION 2901 GENERAL

2901.1 Scope. The provisions of this chapter and the *International Plumbing Code*[®] shall govern the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing equipment and systems. Toilet and bathing rooms shall be constructed in accordance with Section 1210. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the *International Plumbing Code*[®]. Private sewage disposal systems shall conform to the *International Private Sewage Disposal Code*[®]. The provisions of this Chapter are meant to work in coordination with the provisions of Chapter 4 of the *International Plumbing Code*[®]. Should any conflicts arise between the two chapters, the fire code official shall determine which provision applies.

SECTION 2902 MINIMUM PLUMBING FACILITIES

2902.1 Minimum number of fixtures. Plumbing fixtures shall be provided in the minimum number as shown in Table 2902.1 based on the actual use of the building or space. Uses not shown in Table 2902.1 shall be considered individually by the code official. The number of occupants shall be determined by this code.

In other than E Occupancies, the minimum number of fixtures in Table 2902.1 may be lowered, if requested in writing, by the applicant stating reasons for a reduced number and approved by the fire code official.

Table 2902.1 Minimum number of required plumbing fixtures.

{add footnote f to read as follows}

f. Drinking fountains are not required in M Occupancies with an occupant load of 100 or less, B Occupancies with an occupant load of 25 or less, and for dining and/or drinking establishments.

2902.1.3 Additional fixtures for food preparation facilities. In addition to the fixtures required in this Chapter, all food service facilities shall be provided with additional fixtures set out in this section.

2902.1.3.1 Hand washing lavatory. At least one hand washing lavatory shall be provided for use by employees that is accessible from food preparation, food dispensing and ware washing areas. Additional hand washing lavatories may be required based on convenience of use by employees.

2902.1.3.2 Service sink. In new or remodeled food service establishments, at least one service sink or one floor sink shall be provided so that it is conveniently located for the cleaning of mops or similar wet floor cleaning tool and for the disposal of mop water and similar liquid waste. The location of the service sink(s) and/or mop sink(s) shall be approved by the Denton County Health Department.

CHAPTER 30 ELEVATORS AND CONVEYING SYSTEMS

SECTION 3002 HOISTWAY ENCLOSURES

3002.1 Hoistway Enclosure Protection. Elevator, dumbwaiter and other hoistway enclosures shall be shaft enclosures complying with Section 713.

Exceptions:

1. Elevators wholly located within atriums complying with Section 404 shall not require hoistway enclosure protection.
2. Elevators in open or enclosed parking garages that serve only the parking garage, and complying with Sections 406.5 and 406.6, respectively, shall not require hoistway enclosure protection.

SECTION 3005 MACHINE ROOMS

3005.4 Machine rooms, control rooms, machinery spaces, and control spaces. Elevator machine rooms, control rooms, control spaces and machinery spaces shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. The fire-resistance rating shall be not less than the required rating of the hoistway enclosure served by the machinery. Openings in the fire barriers shall be protected with assemblies having a fire protection rating not less than that required for the hoistway enclosure doors.

{add Section 3005.7}

3005.7 Fire protection in machine rooms, control rooms, machinery spaces and control spaces.

3005.7.1 Automatic sprinkler system. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, except as otherwise permitted by Section 903.3.1.1.1 and as prohibited by Section 3005.7.2.1.

3005.7.2.1 Prohibited locations. Automatic sprinklers shall not be installed in machine rooms, elevator machinery spaces, control rooms, control spaces and elevator hoist-ways.

3005.7.2.2 Sprinkler system monitoring. The sprinkler system shall have a sprinkler control valve supervisory switch and water-flow initiating device provided for each floor that is monitored by the building's fire alarm system.

3005.7.3 Water protection. An approved method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system outside the elevator lobby shall be provided.

3005.7.4 Shunt trip. Means for elevator shutdown in accordance with Section 3005.5 shall not be installed.

{add Section 3005.8}

3005.8 Storage. Storage shall not be allowed within the elevator machine room, control room, machinery spaces and or control spaces. Provide approved signage at each entry to the above listed locations stating: "No Storage Allowed".

SECTION 3006 ELEVATOR LOBBIES AND HOISTWAY OPENING PROTECTION

3006.2, Hoistway opening protection required. Elevator hoistway door openings shall be protected in accordance with Section 3006.3 where an elevator hoistway connects more than three stories, is required to be enclosed within a shaft enclosure in accordance with Section 712.1.1 and any of the following conditions apply:

1. The building is not protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. The building contains a Group I-1 Condition 2 occupancy.
3. The building contains a Group I-2 occupancy.
4. The building contains a Group I-3 occupancy.
5. The building is a high rise and the elevator hoistway is more than 55 feet (16 764 mm) in height. The height of the hoistway shall be measured from the lowest floor at or above grade to the highest floors served by the hoistway.

CHAPTER 31 SPECIAL CONSTRUCTION

SECTION 3109 SWIMMING POOLS, SPAS, AND HOT TUBS

3109.1 General. Swimming pools shall comply with the requirements of sections 3109.2 through 3109.5 and other applicable sections of this code and complying with applicable state laws.

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