Fire Marshal’s Office

Procedures & Specifications Guide

ICC International Fire Code
2018 Edition
Fire Marshal’s Office
Contact Information

Address:

Town of Little Elm
Public Safety Building
88 West Eldorado Pkwy
Little Elm, TX 75068

Personnel:

Andy Sissney
Assistant Fire Marshal
Inspections, Investigations

972-975-0417
asissney@littleelm.org
fmo@littleelm.org

Questions?

Fire Code, Permits, and Plans Review: Andy Sissney

Inspections and Site Visits:
Purpose and Overview

The purpose of this Fire Marshal's Office Procedures and Specifications Guide is to provide assistance to the developers, contractors, business owners, and other interested parties in understanding and complying with the various developmental requirements for commercial and residential properties required by the Town of Little Elm Fire Marshal's Office. This document is intended as a guide and is not intended to encompass all requirements set forth in the adopted International Fire Code, the adopted Town ordinances, and standards set forth within.

This guide is to address only the Fire Department’s requirements. It does not include nor presume to include the Development Services, Planning and Zoning, Building Safety, or Public Works Divisions of the development and review process. It also does not include ADA requirements.

The Fire Marshal’s Office utilizes the 2018 edition of the International Fire Code and the amendments that the Town of Little Elm has adopted into ordinance. These amendments are based on the recommendations of the North Central Texas Council of Governments to facilitate consistency with other departments within the region. Further amendments have been made based on the Town of Little Elm Fire Department’s local capabilities and best practices regarding services, apparatus, and personnel.

It is our sincere intention that this guide serves to assist with a smooth plans submission, review, and inspection process so that Fire and Life Safety issues are adequately addressed and any delays in development are kept to a minimum.

Though this guide is intended to be a static document, policy statements will need to be made periodically in order to clarify a code, ordinance, or interpretation. These policy statements will be updated and available online at www.littleelm.org/fmopolicy.
Plan Review and Inspections

All plans review and inspections required by the Town of Little Elm Fire Department as specified in this guide are performed exclusively by Fire Department personnel. Fire Department inspections must be scheduled directly with the Fire Marshal’s Office using the method(s) contained in this guide. Plans will be reviewed within 5 to 10 business days of receipt.

**Inspection requests must be received by the Fire Marshal’s Office 48 hours in advance and scheduling will be coordinated directly between the Fire Marshal’s Office and the responsible parties. Inspections involving fire and life safety systems may only be requested by the contractor installing the system(s).**

PROPERTIES OUTSIDE TOWN LIMITS AND WITHIN THE ETJ (INCLUDING LPA):

Properties outside Town limits but within the Town’s ETJ (including LPA) have a parallel permitting process with the Denton County Department of Emergency Services. Permits required by the Town’s Development Services Division (Building Safety, Planning & Zoning, Health) will go through the Town of Little Elm permit office, however all Fire Department permits will be determined by, and handled through, the Denton County Department of Emergency Services. They will be responsible for all Fire Department plans review, permitting, and inspections within the Town’s ETJ and you will communicate directly with their office. You must contact their office as soon as possible to determine their permitting process and which permits they require for each type of property and/or system. Though the Town of Little Elm Fire Department and the Denton County Department of Emergency Services share many of the same code requirements, you should not assume the requirements in this guide match all of the requirements of Denton County. **Please contact their office as soon as possible to avoid unnecessary delays in getting your project permitted and inspected.**

Denton County
Department of Emergency Services
9060 Teasley Lane
Denton, TX 76210
940-349-2840 phone
940-349-5320 fax
[www.dentoncounty.com](http://www.dentoncounty.com)
FIRE MARSHAL’S OFFICE
PROCEDURES & SPECIFICATIONS GUIDE

TABLE OF CONTENTS

I. PLANNING PHASE

(Primary audience: Developers, Property Owners, Civil Engineers)

A. NEW SITE DEVELOPMENT

1. Commercial 2
2. Multi-Family 5
3. Subdivisions (One- and Two-Family Dwellings) 8

II. DESIGN PHASE

(Primary audience: Architects, Designers, General Contractors, Sub-Contractors)

A. FIRE DEPARTMENT PERMITS REQUIRED

1. Overview (Permit Listing) 10
2. By Occupancy Type 11
3. By Permit Type 18

B. GENERAL REQUIREMENTS

1. Knox Boxes & Key Switches 22
2. Building Addressing 24

III. FIRE PERMIT PLANS SUBMITTAL PHASE

(Primary audience: All Contractors)

A. PLANS SUBMITTAL PROCESS

1. Submittal Process 35
2. Fee Schedule 37
3. MyGov Instructions for FD Plans Review Submittal 38

IV. INSTALLATION & CONSTRUCTION PHASE

(Primary audience: Site Supervisors, General Contractors, Sub-Contractors)

A. FIRE DEPARTMENT INSPECTIONS

1. General Guidelines 41
2. MyGov Instructions for FD Inspection Requests 43

B. CONSTRUCTION SITE

1. Site Housekeeping 44
2. Site Access & Fencing 45
3. Construction Fuel Tanks 47
TABLE OF CONTENTS (continued)

V. CERTIFICATE OF OCCUPANCY PHASE
(Primary audience: Building Owners, General Contractors)

A. PROJECT FINISH OUT
   1. Certificate of Occupancy Release Policy 49
   2. Checklists for Final Inspection 50

APPENDICES

A. FIRE SYSTEMS DESIGN & PLANS REQUIREMENTS
   1. Fire Lane Guidelines 53
      a. Commercial & Multi-Family
      b. Single-Family & Subdivision
      c. Other Considerations and Alternative Methods
   2. Fire Hydrant Guidelines 57
   3. Underground Fire Main & Fire Department Connection 58
   4. Fire Sprinklers 60
   5. Building Fire Alarm 64
   6. Commercial Type I Hood Suppression Systems 67
   7. Above Ground Fuel Storage Tanks 69
   8. Underground Fuel Storage Tanks 70
   9. Access Control & Delayed Egress (Building) 72
   10. Automatic Access Gates (Vehicle) 74

B. FD FORMS
   1. FD Permit Application
   2. FD Inspection Request
   3. Building CO

C. 2018 LOCAL AMENDMENTS

E. POLICY STATEMENTS
I. PLANNING PHASE
Primary audience: Developers, Property Owners, Civil Engineers

A. NEW SITE DEVELOPMENT

1. Commercial
2. Multi-Family
3. Subdivisions (One- and Two-Family Dwellings)
These guidelines are provided to assist with the development of commercial properties in meeting the requirements of the Town of Little Elm’s Fire Code and Fire Marshal’s Office requirements. The information provided is intended as a guideline only and is not intended to address all requirements.

**Fire Lane Coverage**

<table>
<thead>
<tr>
<th>Width:</th>
<th>Minimum 24-feet (26-feet if two or more occupiable floors—rooftops used for commercial purposes are considered occupiable floors)</th>
</tr>
</thead>
</table>
| Turning Radius: | • Prescriptive design:  
  o 30-foot radius for 24-foot fire lane  
  o 10-foot radius for 30-foot fire lane  
  • Performance-based design (minimum 20-foot radius):  
    o 2014 Pierce 95-foot Mid-Mount Platform Truck:  
      • (L) 48.5’, (W) 8’, (H) 10.5’, (Wheelbase) 23’  
    o AASHTO WB50 dimensions  
    An engineered turning radius exhibit is required for every performance-based design proposal. Proposal must include wheel track, speed and direction of travel. |
| Distance to Structure: | • Non-Sprinklered = 150-feet  
  • Sprinklered = 250-feet  
  Measured around a 10-foot unobstructed pathway from the centerline of the fire apparatus access road to all exterior points of a structure. A 5-foot path through barriers may be used to achieve the required distance. A continuous row of parking is considered a barrier. |
| Vertical Clearance: | 14-feet |
| Access: | Two separate points of access to each property is required |
| Engineering: | All fire lanes shall be of concrete a minimum of 6-inches thick with #3 rebar, 18-inches on center, engineered to Town standards. Fire lanes must also use 6-inches of lime but may allow 2-inches of concrete in lieu of lime with Town pre-approval. |

1. Temporary concrete methods may be used during construction when pre-approved (i.e. knockouts). Gravel may not be used.  
2. All fire lanes must be completed to Town requirements and marked before vertical construction can begin.  
3. Dead-end fire lanes are not permitted. A turnaround proposal may be considered for review.  
4. Fire lanes may not lead traffic directly into fuel dispensing equipment from any direction at motor-fuel dispensing stations. A protective barrier must be put into place or the fire lane must be offset. Pre-approval required.
I.A.1: Commercial Site Development Overview

Fire Hydrants

| Spacing: | Located at each property entrance then spaced as follows:  
|          | Commercial: Non-sprinklered = 300-feet;  
|          | Sprinklered = 500-feet  
|          | Measured along fire apparatus access roads and/or public right of way |
| Availability: | Two hydrants must be available and unobstructed to each property or structure within the spacing distance required. |
| Location: | 50-feet away from structure or structure height + 10 feet;  
|          | 2-feet to 6-feet behind curb;  
|          | 3-foot unobstructed radius  
|          | Within 100-feet of required Fire Department Connections |
| Water Supply: | 12-inch main required for up to two hydrants;  
|          | 12-inch main must be looped for three (3) or more hydrants (underground fire main for sprinkler systems are considered a hydrant for the purpose of this section) |
| Hydrant Connection: | 5-inch Storz quick connection by HydraShield |

Fire Sprinklers, Risers, Fire Mains, and FDCs (Separate FD permits required—See Appendix A)

| Sprinkler Systems (Separate FD permit required) | All structures 5,000 square feet or greater or increased to 5,000 square feet or greater  
|          | Required for all structures with a floor level of 35-feet or higher  
|          | Required for all commercial mini-warehouses and self-storage facilities regardless of size  
|          | A-2 Assembly occupancies (i.e. restaurants) require sprinkler systems if occupant load is 100 or greater regardless of square footage (calculated per IFC 2018, Ch 10)  
|          | Fire walls do not constitute separate buildings |
| Riser Rooms | Riser rooms must be 6’ x 6’ or comparable size  
|          | May only contain sprinkler riser and related fire department systems and equipment  
|          | No other domestic services in room  
|          | No roof access  
|          | Exterior access only (not located in breezeways or vestibules) |
| Underground Fire Mains (Separate FD permit required) | must be 8-inches (no less than 6-inches with approved fire sprinkler plan)  
|          | AWWA C-900 PVC Class 200 DR14 piping |
| Fire Department Connections (Separate FD permit required) | Shall be remote with 4-inch piping and AWWA C-900 PVC Class 200 DR14 piping  
|          | Systems requiring 500+ gpm require both a 5-inch Storz and a 2 ½-inch Siamese connection |
I.A.1: 
Commercial Site Development Overview

**Underground Storage Tanks (Separate FD permit required—See Appendix A)**

1. Tank loading area may not be located on streets or within fire lanes
2. Distances to property lines, buildings, and public ways shall be according to adopted IFC and applicable State and NFPA codes and standards
3. Tanks shall not be located within the fire lane

**Above Ground Storage Tanks (Separate FD permit required—See Appendix A)**

1. Permitted in Light Industrial Districts only (variances must have prior approval)
2. Maximum of 30,000 gallons per site
3. Distances to property lines, buildings, and public ways shall be according to adopted IFC and applicable State and NFPA codes
4. Tank loading area may not be on streets or within fire lanes
5. Tank shall not be located within the fire lane
6. Construction storage tanks must have secondary containment according to adopted IFC and applicable State and NFPA codes

**Gates and Fences (Separate FD permit required—See Appendix A)**

1. Vehicle access gates across fire lanes may not reduce fire lane width and must meet applicable FD access control requirements (separate permit required)
2. Pedestrian access gates through fences must be located to maintain 150-foot fire lane coverage and/or provide adequate emergency access to areas such as playgrounds and athletic fields; be a minimum of 5-feet wide, and comply with FD access requirements

**Controlled Access (Separate FD permit required—See Appendix A)**

1. When Controlled Access devices (i.e., delayed egress, card readers, etc) are used to provide access to structures and areas within properties or structures, the devices must meet all applicable egress and fire alarm requirements

**Emergency Responder Radio Coverage**

1. Section 510 of IFC requires that all buildings have approved radio coverage for emergency responders within the building. Approved radio coverage is based on the ability of the existing public safety communications system to transmit a signal inside and outside a building
2. The owner has the option of testing the system after the building is constructed to ensure adequate radio coverage or to install the Building Distribution Antenna System (BDAS) as part of the primary construction. If the owner opts to test after the building is constructed, a system will need to be installed before CO can be issued if the test fails
3. Planning, installation, and testing must be coordinated with the Fire Marshal’s Office
I.A.2:  
Multi-Family Site Development Overview

These guidelines are provided to assist with the development of multi-family properties in meeting the requirements of the Town of Little Elm’s Fire Code and Fire Marshal’s Office requirements. The information provided is intended as a guideline only and is not intended to address all requirements.

Fire Lane Coverage

<table>
<thead>
<tr>
<th>Width:</th>
<th>Minimum 24-feet (26-feet if two or more occupiable floors—rooftops used for commercial purposes are considered a occupiable floors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turning Radius:</td>
<td>• Prescriptive design:</td>
</tr>
<tr>
<td></td>
<td>o 30-foot radius for 24-foot fire lane</td>
</tr>
<tr>
<td></td>
<td>o 10-foot radius for 30-foot fire lane</td>
</tr>
<tr>
<td></td>
<td>• Performance-based design (minimum 20-foot radius):</td>
</tr>
<tr>
<td></td>
<td>o 2014 Pierce 95-foot Mid-Mount Platform Truck:</td>
</tr>
<tr>
<td></td>
<td>• (L) 48.5’, (W) 8’, (H) 10.5’, (Wheelbase) 23’</td>
</tr>
<tr>
<td></td>
<td>o AASHTO WB50 dimensions</td>
</tr>
<tr>
<td></td>
<td>An engineered turning radius exhibit is required for every performance-based design proposal. Proposal must include wheel track, speed and direction of travel.</td>
</tr>
<tr>
<td>Distance to Structure:</td>
<td>• Non-Sprinklered = 150-feet,</td>
</tr>
<tr>
<td></td>
<td>• Sprinklered = 250-feet</td>
</tr>
<tr>
<td></td>
<td>Measured around a 10-foot unobstructed pathway from the centerline of the fire apparatus access road to all exterior points of a structure. A 5-foot path through barriers may be used to achieve the required distance. A continuous row of parking is considered a barrier</td>
</tr>
<tr>
<td>Vertical Clearance:</td>
<td>14-feet</td>
</tr>
<tr>
<td>Access:</td>
<td>Two separate points of access to each property is required</td>
</tr>
<tr>
<td>Engineering:</td>
<td>All fire lanes shall be of concrete a minimum of 6-inches thick with #3 rebar, 18-inches on center, engineered to Town standards. Fire lanes must also use 6-inches of lime but may allow 2-inches of concrete in lieu of lime with Town pre-approval</td>
</tr>
</tbody>
</table>

1. Temporary concrete methods may be used during construction when pre-approved. Gravel may not be used.  
2. All fire lanes must be completed to Town requirements and marked before vertical construction can begin.  
3. Dead-end fire lanes are not permitted. A turnaround proposal may be submitted for review.
## Little Elm Fire Department
### Fire Marshal’s Office

### I.A.2: Multi-Family Site Development Overview

#### Fire Hydrants

<table>
<thead>
<tr>
<th>Spacing:</th>
<th>Located at each property entrance then spaced as follows:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Commercial: Non-sprinklered = 300-feet;</td>
</tr>
<tr>
<td></td>
<td>• Sprinklered = 500-feet</td>
</tr>
<tr>
<td></td>
<td>Measured along fire apparatus access roads and/or public right of way</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Availability:</th>
<th>Two hydrants must be available and unobstructed to each property or structure within the spacing distance required.</th>
</tr>
</thead>
</table>

| Location: | 50-feet away from structure or structure height + 10 feet; |
|           | 2-feet to 6-feet behind curb; |
|           | 3-foot unobstructed radius |
|           | Within 100-feet of required Fire Department Connections |

| Water Supply: | 12-inch main required for up to two hydrants; |
|               | 12-inch main must be looped for three (3) or more hydrants (underground fire main for sprinkler systems are considered a hydrant for the purpose of this section) |

| Hydrant Connection: | 5-inch Storz quick connection by HydraShield |

### Fire Sprinklers, Risers, Fire Mains, and FDCs (Separate FD permits required—See Appendix A)

<table>
<thead>
<tr>
<th>Sprinkler Systems (Separate FD permit required for each building)</th>
<th>All structures 5,000 square feet or greater or increased in size to 5,000 square feet or greater; Clubhouse/Leasing office regardless of square footage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required for all structures with a floor level of 35-feet or higher</td>
</tr>
<tr>
<td></td>
<td>NFPA 13R will be used for dwellings, NFPA 13 will be used for other structures including parking garages and clubhouses</td>
</tr>
<tr>
<td></td>
<td>Balcony storage closets will be sprinklered</td>
</tr>
<tr>
<td></td>
<td>Fire walls do not constitute separate buildings</td>
</tr>
</tbody>
</table>

| Riser Rooms | Riser rooms must be 6’ x 6’ or comparable size |
|             | May only contain sprinkler riser and related fire department systems and equipment. |
|             | No other domestic services in room |
|             | No roof access |
|             | Exterior access only (not located in breezeways or vestibules) |

| Underground Fire Mains (Separate FD permit required for each line) | must be 8-inches (no less than 6-inches with approved fire sprinkler plan) |
|                                                                  | AWWA C-900 PVC Class 200 DR14 piping |

| Fire Department Connections (Separate FD permit required) | Commercial structures shall be remote with 4-inch piping |
|                                                          | 5-inch Storz quick connection by HydraShield |
|                                                          | Residential structures up to and including 4 stories may be attached |
I.A.2: Multi-Family Site Development Overview

Gates and Fences (Separate FD permit required—See Appendix A)

1. Vehicle access gates across fire lanes may not reduce fire lane width and must meet applicable FD access control requirements

Controlled Access (Separate FD permit required—See Appendix A)

1. When Controlled Access devices are used to provide access to structures and areas within properties (such as card readers for pedestrian gates into pool areas), the devices must meet all applicable egress and fire alarm requirements

Emergency Responder Radio Coverage

1. Section 510 of IFC requires that all buildings have approved radio coverage for emergency responders within the building. Approved radio coverage is based on the ability of the existing public safety communications system to transmit a signal inside and outside a building.

2. The owner has the option of testing the system after the building is constructed to ensure adequate radio coverage or to install the Building Distribution Antenna System (BDAS) as part of the primary construction. If the owner opts to test after the building is constructed, a system will need to be installed before CO can be issued if the test fails.

3. Planning, installation, and testing must be coordinated with the Fire Marshal’s Office.
I.A.3: Subdivision Site Development Guidelines

These guidelines are provided to assist with the development of residential subdivisions containing one- and two-family dwellings in meeting the requirements of the Town of Little Elm’s Fire Code and Fire Marshal’s Office requirements. The information provided is intended as a guideline only and is not intended to address all requirements.

Fire Lanes/Access Roads

1. Within 150-feet of all exterior walls measured along a 10-foot unobstructed pathway
2. Two points of access are required into each subdivision
3. Block length may not exceed 1000-feet
4. Cul-de-sac length may not exceed 500-feet
   - 100-foot diameter turnaround (curb-to-curb) shall be provided
   - Cul-de-sac length may exceed 500-feet where homes beyond that distance are sprinklered
5. Dead end roads are not permitted. Approved turnarounds must be provided.
6. 14-foot vertical clearance above access roads required

Fire Hydrants

1. Spacing: Non-sprinklered homes=500-feet; Sprinklered homes=600-feet; and at every intersection
2. Location:
   - May not be located within the turning radii or bulb of cul-de-sac
   - 2-feet to 6-feet behind curb; 3-foot radius unobstructed clearance
3. Marking: an approved blue, two sided reflector shall be affixed to the center line of each roadway or fire access lane opposite fire hydrants.

Fire Sprinklers Required (Separate FD permit required—See Appendix A)

1. All homes over 5,000sf must be sprinklered. Calculations are based on square footage of garages and all occupiable spaces. Square footage of patios and balconies will not be included in the calculation for square footage
2. Structures built within 10-feet of another structure are not considered a separate structure for fire sprinkler requirements unless they comply with fire resistance requirements set forth by the 2018 IBC
3. Separate Tap and line size will be located on the Town side of the meter and based on fire sprinkler system calculations and approved by the Fire Marshal’s office
4. The ball valve shall be located in the same can with the meter

Access Gates (Separate FD permit required—See Appendix A)

1. Gates crossing fire lanes and access roads require approved access control systems
II. DESIGN PHASE

Primary audience: Architects, Designers, General Contractors, Sub-Contractors

A. FIRE DEPARTMENT PERMITS AND CODE REQUIREMENTS

1. Overview (with Permit Listing)
2. By Occupancy Type
3. By Permit Type

B. GENERAL REQUIREMENTS

1. Knox® Boxes and Key Switches
2. Building Addressing
II.A.1: Permits Required - Overview

The following is a list of permits that are required prior to construction by the Town of Little Elm Fire Department.

Each type of permit has an associated guidelines document to assist you with submittal requirements and code compliance (see Appendix A). Please carefully read the associated guidelines prior to permit submittal to ensure a timely permit review.

Failure to obtain a permit required by ordinance and/or working without a permit will result in a fee of twice the permit fee in addition to the original permit fee. Citations and Stop Work Orders may also be issued.

 Permit and approved plans must be kept on site at all times that work is in progress. Work done without approved plans on site will be considered working without a permit.

Applicable Codes: 2018 ICC Codes

2018 International Fire Code
Local Fire Code Amendments:  www.littleelm.org, Code of Ordinances, Chapter 50, Article III
Fire Marshal’s Procedures & Specifications Guide

**Where there is a conflict between code amendments, the most stringent amendment prevails.

FD Permit Listing:

- Fire Alarm
- Fire Alarm – Waterflow only
- Fire Sprinkler – Commercial and Multi-Family
- Fire Sprinkler – One and Two Family Residential
- Standpipe System
- Fire Pump
- Remote Fire Department Connection (FDC)
- Underground Fire Main
- Battery System
- Access Control System (Building)
- Gate Access System (Vehicle)
- Flammable/Combustible Liquids
- Flammable/Combustible Storage Tanks
- LP-Gas
- Compressed Gasses
- Hazardous Materials
- Spray or Dipping Operations
II.A.2: Permits Required by Occupancy Type

Each type of permit has an associated guidelines document to assist you with submittal requirements and code compliance (see Appendix A). Please carefully read the associated guidelines document prior to permit submittal to ensure a timely permit review.

The following permit types are required for construction by the Town of Little Elm Fire Department.

Failure to obtain a permit required by ordinance, and/or working without a permit will result in a fee of twice the permit fee in addition to the permit fee, as well as a Stop Work Order.

Permit and approved plans must be kept on site. Work done without approved plans on site will be considered working without a permit.

Applicable Codes: 2018 ICC Codes

2018 International Fire Code
Local Fire Code Amendments: www.littleelm.org, Code of Ordinances, Chapter 50, Article III
Fire Marshal’s Procedures & Specifications Guide

**Where there is a conflict between code amendments, the most stringent amendment prevails.

ADDITIONAL REQUIREMENTS for SPECIFIC Occupancies

A-1: (i.e., Theaters)
Automatic Fire Sprinkler Plan Submittal Required For:

- Building area meets or exceeds 5,000 square feet
- Occupant Load of 300 or more. (IFC 903.2.1.1)
- Floor above or below exit discharge. (IFC 903.2.1.1)
- Has Multi Theater complex. (IFC 903.2.1.1)

Fire Alarm Plan Submittal Required For:

- Occupant Load of 300 or more. (IFC 907.2.1)

A-2: (i.e., Restaurants)
Automatic Fire Sprinkler Plan Submittal Required For:

- Building area meets or exceeds 5,000 square feet
- Occupant Load of 100 or more. (IFC 903.2.1.2)
- Floor above or below exit discharge. (IFC 903.2.1.2)
II. Design Phase: Permits Required by Occupancy Type

II.A.2: Permits Required by Occupancy Type

Fire Alarm Plan Submittal Required For:

- Occupant Load of 300 or more. (IFC 907.2.1)

A-3: (i.e., Churches, Community Halls)

Automatic Fire Sprinkler Plan Submittal Required For:

- Building area meets or exceeds 5,000 square feet
- Occupant Load of 300 or more. (IFC 903.2.1.3)
- Floor above or below exit discharge
  - Exception: Sports areas where main floor is a level of Exit Discharge. IFC 903.2.1.3)

Fire Alarm Plan Submittal Required For:

- Occupant Load of 300 or more. (IFC 907.2.1)

A-4: (i.e., Arenas, Swimming Pools)

Automatic Fire Sprinkler Plan Submittal Required For:

- Occupant Load of 300 or more. (IFC 903.2.1.4)
- Floor above or below exit discharge
  - Exception: Sports areas where main floor is a level of Exit Discharge. IFC 903.2.1.4)

Fire Alarm Plan Submittal Required For:

- Occupant Load of 300 or more. (IFC 907.2.1)

A-5: (i.e., Amusement Park Structures, Bleachers, Stadiums)

Automatic Fire Sprinkler Plan Submittal Required For:

- Building area meets or exceeds 5,000 square feet
- Concession stands, retail areas, press boxes and other accessory use areas 1,000 square feet or larger. (IFC 903.2.1.5)

Fire Alarm Plan Submittal Required For:

- Occupant Load of 300 or more. (IFC 907.2.1)
II.A.2:
Permits Required by Occupancy Type

B: (i.e., Beauty Shops, Banks, Animal Hospitals, Offices, Admin Bldgs)

**Automatic Fire Sprinkler Plan Submittal: Required For:**

- Building area meets or exceeds 5,000 square feet

**Fire Alarm Plan Submittal: Required For:**

- Building with total occupant load of 500 or more. (IFC 907.2.2)
- Occupant load of 100 or more above or below lowest level of exit discharge. (IFC 907.2.2)

E: (i.e., Educational purposes through 12th grade (*see IFC for additional criteria)

**Automatic Fire Sprinkler Plan Submittal: Required For:**

- Building area meets or exceeds 5,000 square feet
- Any portion below level of exit discharge. (IFC 903.2.2)

**Fire Alarm Plan Submittal: Required For:**

- All “E” occupancies (IFC 907.2.3)

F-1: (Moderate-Hazard Fabrication)

**Automatic Fire Sprinkler Plan Submittal: Required For:**

- Building area meets or exceeds 5,000 square feet
- More than 3 stories in height. (IFC 903.2.3)
- Has woodworking area 2500 sq.ft. or larger. (IFC 903.2.3.1)

**Fire Alarm Plan Submittal: Required For:**

- Building two or more stories in height and with total occupant load of 500 or more above or below lowest level of exit discharge. (IFC 907.2.4)

F-2: (Low-Hazard Fabrication)

**Automatic Fire Sprinkler Plan Submittal: Required For:**

- Building area meets or exceeds 5,000 square feet
- More than 3 stories in height. (IFC 903.2.3)
II. Design Phase: Permits Required by Occupancy Type

II.A.2: Permits Required by Occupancy Type

Fire Alarm Plan Submittal: Required For:

- Building two or more stories in height and with total occupant load of 500 or more above or below lowest level of exit discharge. (IFC 907.2.4)

H-1, H-2, H-3, H-4, & H-5 (Hazardous Occupancies subject to zoning restrictions)

Automatic Fire Sprinkler Plan Submittal: Required For:

- All “H” occupancies. (IFC 903.2.4.1)

Fire Alarm Plan Submittal: Required For:

- All “H-5” occupancies. (IFC 907.2.5)

I-1, I-2, I-3, & I-4 (i.e., daycares, jails, group homes, nursing homes, et al)

Automatic Fire Sprinkler Plan Submittal: Required For:

- All “I” occupancies (IFC 903.2.5) except daycares at level of exit discharge with each classroom having an exterior exit door

Fire Alarm Plan Submittal: Required For:

- All “I” occupancies. (IFC 907.2.6)

M (i.e., retail, motor fuel dispensing facilities)

Automatic Fire Sprinkler Plan Submittal: Required For:

- Building area meets or exceeds 5,000 square feet
- High piled storage. (IFC 903.2.6.1)

Fire Alarm Plan Submittal: Required For:

- Building with total occupant load of 500 or more. (IFC 907.2.7)
- Occupant load of 100 or more above or below lowest level of exit discharge. (IFC 907.2.7)
II.A.2: Permits Required by Occupancy Type

R-1 (i.e., transient hotels, motels)

Automatic Fire Sprinkler Plan Submittal: Required For:

- Building area meets or exceeds 5,000 square feet
- All buildings with an R-1 fire area except the following: (IFC 903.2.7)
  - Where guestrooms are not located more than one story in height and the building contains less than 20 guest rooms. (IFC 903.2.7)

Fire Alarm Plan Submittal: Required For:

- All “R-1” occupancies (IFC 907.2.8)
- See Exceptions 1, 2, & 3. (IFC 907.2.8)

R-2 (i.e., apartments, dormitories, non-transient hotels and motels)

Automatic Fire Sprinkler Plan Submittal: Required For:

- Building area meets or exceeds 5,000 square feet
- Buildings greater than three stories. (IFC 903.2.8)
- Buildings with greater than 16 dwelling units. (IFC 903.2.8)
- Fraternities and Sororities with occupant load greater than 10. (IFC 903.2.8).

Fire Alarm Plan Submittal: Required For:

- Dwelling unit is located three or more stories above the lowest level of exit discharge. (IFC 907.2.9)
- Any dwelling unit located more than one story below the highest level of exit discharge of exits serving the dwelling unit. (IFC 907.2.9)
- Building contains more than 16 dwelling units. (IFC 907.2.9)
- See Exceptions 1, & 2 (IFC 907.2.9)

R-3 (i.e. one- and two-family dwellings)

- See GENERAL REQUIREMENTS for ALL Occupancies (page 18)

R-4 (i.e. rehabilitation centers, group homes, assisted living)

Automatic Fire Sprinkler Plan Submittal: Required For:

- Building area meets or exceeds 5,000 square feet
II.A.2:
Permits Required by Occupancy Type

Fire Alarm Plan Submittal: Required For:

- All “R-4” occupancies (IFC 907.2.11)

S-1 (Moderate Hazard Storage)
Automatic Fire Sprinkler Plan Submittal: Required For:

- Building area meets or exceeds 5,000 square feet
- Repair garages with two or more stories in height including basements. (IFC 903.2.10.1)
- Building with tire storage greater than 20,000 cubic feet. (IFC 903.2.10.2)
- Self-storage facility. (IFC 903.2.10.3)
- Self-storage facility. (Exception of one story building with no corridors and one-hour fire barrier between every storage compartment). (IFC 903.2.10.3)

S-2 (Low Hazard Storage)
Automatic Fire Sprinkler Plan Submittal: Required For:

- Building area meets or exceeds 5,000 square feet
- Enclosed parking garages. (IFC 903.2.11)

U (i.e. Barns, garages, sheds)

- See GENERAL REQUIREMENTS for ALL Occupancies (page 18)

Underground Buildings

Automatic Fire Sprinkler Plan Submittal: Required For:

- All underground buildings. (IFC 905.3.6)

Fire Alarm Plan Submittal: Required For:

- All underground buildings 60 feet or more below fire department access (IFC 907.2.19)
- All underground buildings must have detection for smoke exhaust system. (IFC 907.2.19)

Smoke Control Plan Submittal: Required For:

- All underground buildings. (IBC 405.5)
II.A.2:  
Permits Required by Occupancy Type

Covered Mall Buildings

**Automatic Fire Sprinkler Plan Submittal: Required For:**
- All Covered Mall Buildings. (IBC 402.8) (IBC & IFC 905.3.4)

**Standpipe Plan Submittal: Required For:**
- All Covered Mall buildings. (IBC 402.8.1)

**Fire Alarm Plan Submittal: Required For:**
- Covered Mall Buildings exceeding 50,000 sq.ft. in total floor area (Voice evac.). (IFC 907.2.20)

**Smoke Control Plan Submittal: Required For:**
- All Covered Mall Buildings. (IBC 402.9)

Special Amusement Buildings

**Automatic Fire Sprinkler Plan Submittal: Required For:**
- All Special Amusement Buildings. (IBC 411.4)
  - Except Temporary Special Amusement Buildings less than 1,000 sq.ft. and with travel distance to exit from any point less than 50 feet.

**Fire Alarm Plan Submittal: Required For:**
- All special amusement buildings. (IFC 907.2.11)
II.A.3: Requirements by Permit Type

Each type of permit has an associated guidelines document to assist you with submittal requirements and code compliance (see Appendix A). Please carefully read the associated guidelines document prior to permit submittal to ensure a timely permit review.

The following permit types are required for construction by the Town of Little Elm Fire Department.

Failure to obtain a permit required by ordinance, and/or working without a permit will result in a fee of twice the permit fee in addition to the permit fee, as well as a Stop Work Order.

Permit and approved plans must be kept on site. Work done without approved plans on site will be considered working without a permit.

**Codes: (See Fire Code Amendments at www.littleelm.org)**

2018 International Fire Code
Local Fire Code Amendments: www.littleelm.org, Code of Ordinances, Chapter 50, Article III
Fire Marshal’s Procedures & Specifications Guide

**Where there is a conflict between code amendments, the most stringent amendment prevails.**

**GENERAL REQUIREMENTS for ALL Occupancies by Permit Type**

**Fire Sprinkler Underground Plan Submittal: Required For:**

- Buildings with new sprinkler system installations.
- Existing sprinkler systems where sprinkler underground piping must be modified.
- Each line is a separate permit.

**Remote Fire Department Connection Plan Submittal: Required For:**

- Buildings with new sprinkler system installations
- Existing sprinkler system where Remote Fire Department Connection must be modified.
- Each line is a separate permit.
II.A.3: Requirements by Permit Type

**Automatic Fire Sprinkler Plan Submittal: Required For:**

- Building area is 5,000 square feet or larger, modified (immediately or incrementally) to a size greater than 5,000 square feet
- Remodels to existing buildings with automatic sprinklers.
- A building addition where the cumulative total area of the building exceeds 5,000 sq.ft.
- Spray booths (new and existing).
- Stages
- Buildings with a floor level that is 35 feet or more above the lowest level of fire department vehicle access, automatic sprinkler systems are required.
- Atriums
- High piled storage area is 500 sq.ft. or larger
- All buildings with FM 200, Intergen, or other alternate agent system.
- All Occupancies except R-3 and U when:
  - Stories or basements without openings: Sprinklers required throughout every story or basement of all buildings where the floor area exceeds 1,500 sq.ft. and where there is not one of the following types of exterior wall openings:
    - Openings below grade that lead directly to ground level by an exterior stairway complying with Section 1022 or an outside ramp complying with Section 1022. Openings shall be located in each 50 linear feet or fraction thereof, of exterior wall in the story on at least one side.
    - Openings entirely above the adjoining ground level totaling at least 20 sq.ft. in each 50 linear feet, or fraction thereof, of exterior wall in the story on at least one side.

*Openings below grade that lead directly to ground level by an exterior stairway complying with Section 1022 or an outside ramp complying with Section 1022. Openings shall be located in each 50 linear feet or fraction thereof, of exterior wall in the story on at least one side. *Openings entirely above the adjoining ground level totaling at least 20 sq.ft. in each 50 linear feet, or fraction thereof, of exterior wall in the story on at least one side.

**Fire Alarm Plan Submittal: Required For:**

- Remodels, fire alarm panel changes, or addition of monitoring to existing buildings with Fire Alarms.
- The complete building fire alarm must meet current code requirements if remodel or expansion of existing building exceeding 30% of the total building area. (IFC 907.1.3)
- Atriums. (IFC 907.2.13)
- High rise buildings. (IFC 907.2.12)
- Lead Acid Battery rooms with greater than 50 gallon liquid capacity. (IBC & IFC 907.2.23)
- Buildings where elevator recall is required.
II.A.3: Requirements by Permit Type

Standpipe Plan Submittal: Required For:

- Buildings where floor level of the lowest story is located more than 30 feet above or below fire department access, standpipe systems are required. (IFC 905.3.1)
- Buildings 10,000 sq.ft. or greater where interior area is more than 200 feet of travel from the centerpoint of fire lane, standpipe systems are required. (IFC 905.3.2)

Flammable Liquid Storage Tank Submittal: Required For:

- Portable tank 660 gallons or larger. (IFC 3404.2)
- Fixed above ground storage tanks and underground storage tanks. (IFC 3404.2)
  - Above Ground Tanks Not Permitted in Zoning Other Than Industrial.
- Propane tank installations.

Hood Suppression System Plan Submittal: Required For:

- All Type I hoods. (IFC 904.2.1)
- Domestic Appliances used for commercial purposes (Requires Type I Hood) (IFC 609)

Alternate Extinguishing System Plan Submittal: Required For:

- All buildings with FM 200, Intergen, or other alternate agent system.

Smoke Control Plan Submittal: Required For:

- Stage larger than 1,000 square feet in floor area. (IBC 410.3.7)
- Stage with height greater than 50 feet. (IBC 410.3.7)
- High rise buildings. (IBC & IFC 1005.3.2.5)
- Atriums. (IBC 404.4)
- High piled storage area 12,000 sq.ft. or larger. (Note: will also have to meet building access requirements). (IFC Table 2306.2)

High Piled Storage Plan Submittal: Required For:

- All high piled storage areas.
II. Design Phase: Requirements by Permit Type

II.A.3: Requirements by Permit Type

Battery System Plan Submittal: Required For:

• Installation of stationary lead-acid battery systems having a liquid capacity of more than 50 gallons

Access Control Plan Submittal: Required For:

• Installation of any ingress or egress control system

Gate Access System Plan Submittal: Required For:

• Installation of a gate system that crosses a fire lane
• Installation of a gate system that restricts fire department access (community pools, etc.)

LP Gas System Plan Submittal: Required For:

• Installation of or modification to an LP-gas system (IFC 105.7.9)

Compressed Gas System Plan Submittal: Required For:

• Installation, repairing damage to, abandoning, removing, placing temporarily out of service, or closing or substantially modifying a compressed gases system when the use or storage exceed the amounts listed in the IFC Table 105.6.8

Hazardous Material Plan Submittal: Required For:

• Installing, repairing damage to, abandoning, removing, placing temporarily out of service, or close or substantially modifying a storage facility or other area regulated by Chapter 27 of the IFC when use or storage is in excess of the amounts listed in Table 105.6.20.

Spray / Dipping Operations Plan Submittal: Required For:

• Installing or modifying a spray room, dip tank or booth
II.B.1:  
**Knox® Boxes and Key Switches**

Due to the variations of Fire Department access needs from property to property, Fire Marshal’s Office personnel must approve placement of all lock boxes and key switches.

**GENERAL NOTES FOR ALL PROPERTIES**

- All Knox® Boxes are required to be installed at 5-feet on center above finished floor.
- Knox® Boxes shall be installed no more than 10 feet horizontally from the entrance of door being served.
- All Knox® Boxes shall be of the hinged door type (except residential use).
- When any building utilizes any card reader access systems (electric or magnetic) a minimum of a series 4400 Knox® Box will be required.
- Knox® Boxes that serve multiple tenants, are difficult to locate or, as required, shall be identified using the approved signage. See Fire Department Sign Specifications.

**Large Office, Warehouse and Big Box Retail Buildings**

- A 4400 series Knox® Box is required at the main entry.
- A 3200 series Knox® Box is required at the riser room.
- An additional Knox® Box may be required at the rear entry of the building.

**Shopping Strip Centers**

- A 4400 series Knox® Box is required. The Box should be located by the riser room. If there is no riser room, the lock box should be centrally located on the building, in an approved location, and identified by approved signage.

**Small Commercial Buildings (small, single occupant buildings)**

- A 3200 series Knox® Box is required.
- An additional Knox® Box may be required at the rear of the building.

**High Rise buildings (Any building where any occupied floor is located greater than 35 feet from the lowest point of Fire Department Access)**

- A 4400 series Knox® Box is required at the main entry of the building. More than one Knox® Box may be required at other access points.
- A 4400 series Knox® Box is required in any elevator lobbies in the building.
- A 1300 series Knox® Box is required in the Fire Control Room / Fire Command Room.

**Multi-Family Complexes**

- A 3200 series Knox® Box shall be placed at the Club House or Leasing Office.
- A 3200 series Knox® box will be placed at all riser rooms.
- Individual apartment lessees shall be allowed to purchase and place a 1600 series Knox® Box outside their front door.
II.B.1: Knox® Boxes and Key Switches

One- or Two-Family Residential
When a resident wishes to provide access to their home they may use a 1600 series Knox® Box. The box should be placed at the main front entrance of the residence.

Special Hazard Occupancy
Any occupancy containing special hazards must contact the Fire Marshal’s Office for the amount and placement of lock boxes.
A 3200 series Knox® Box shall be required at a minimum for occupancies with hazardous materials or other high hazard occupancies.

OTHER APPLICATIONS

Magnetic Locks
If magnetic locks are used to secure any door in a facility, a 4400 Series Knox® Box shall be required with a Knox® Multipurpose Switch (Item # 3291, 4471). This switch will be connected to the mag-lock control panel and disengage all mag-lock devices.

Pedestrian Gates (HOA operated pools, apartment complexes)
Primary access points that have pedestrian gates require fire department access. This access may be provided with a 1600 series lock box or a 3500 series key switch. (A 3500 Series key switch is required on electronically locked gates.)

KNOX® BOX ORDERING INFORMATION:

NOTE: It is the responsibility of the General Contractor to order the appropriate box(es) and/or switch(es). Please Contact the Fire Marshal for proper number and series to order. Failure to order the appropriate item(s) will delay the issuance of a CO. Exceptions will not be made.

VIA INTERNET: Go to www.knoxbox.com, Click the “ONLINE PURCHASE link. You will be prompted to enter the Zip Code, which is 75068. A list of departments in the area will be listed. Select LITTLE ELM and click continue. Select you product(s) and follow the instructions from that point.

VIA MAIL/FAX: Applications can be picked up at the Little Elm Public Safety Building at 100. W Eldorado, Little Elm, TX 75068. Follow instructions on the form.

VIA PHONE: Call 1-800-552-5669 to order.
II.B.2: Building Address and Identification

The following guidelines are intended to provide a uniform, easily identifiable addressing system for Emergency Responders. The address numbers shall be of a contrasting color to the background and made of material approved by the Planning Division. All address numbers, including suite numbers, must be coordinated with the Town of Little Elm’s GIS Department.

**Single family homes**
- Minimum 4" high, 5/8" stroke

**Multifamily Communities**
- Street Address shall be a minimum of 12" high with a 2" stroke.
- Individual building numbers shall be a minimum of 18" high with a 3" stroke.
- Buildings over 100 feet in length require a minimum of two (2) numbers per building.
- Apartment spread numbers shall be a minimum of 7" high with a one inch stroke and corridor spread numbers shall be a minimum of 4" high with a 5/8 inch brush stroke.
- Individual apartment unit numbers shall be a minimum of 4" in height with a 5/8 inch stroke.

**Large Office and Warehouse Buildings**
- Address must be visible from all access directions.
- Number shall be a minimum of 24 inches in height with a 4 inch stroke.
- Buildings over 500 feet long shall have two address locations if more than one access point is visible.
- Suite numbers shall be required for multi-tenant complexes and shall be located over the front door and on the rear door, six inches in height with a one inch brush stroke.

**Shopping Centers, High Rise Buildings and Other Applications.**
- A minimum 8" to 12" high numbers with a 2" brush stroke shall be visible from all access directions.
- Suite numbers are required over the door with 4" high numbers with a 5/8 inch brush stroke.
- Buildings beyond 100 feet from the street and 10,000 square feet shall install 18 inch numbers with a three inch stroke.

**Marquee and Monument.**
- Addresses installed on a marquee located next to the street will require numbers 8" high with a 2 inch brush stroke to be located a minimum of 3 feet above grade.
- Marquee and Monument signs must meet Town of Little Elm Sign Ordinance Requirements as required by the Development Services Planning Division.
Pursuant to the International Fire Code (IFC); in an attempt to standardize IFC signage requirements and to facilitate fire department operations, the Fire Marshal’s Office has established the following specifications of sign size, text, font, design and construction that indicate the location of fire department equipment and/or identifies location hazards.

The signs in this document are the most common used signs in construction; however, this document is not intended to cover all circumstances. In the event that additional signs are required and are not listed in this document, the Fire Marshal will provide the specifications to use.

NOTE: THE DIAGRAMS CONTAINED WITHIN THIS DOCUMENT ARE PROVIDED AS EXAMPLES ONLY.

PLEASE VERIFY WITH THE FIRE MARSHAL’S OFFICE FOR THE CORRECT VERBAGE AND REQUIRED SIGNS.

ALL SIGN LAYOUTS MUST BE APPROVED BY THE FIRE MARSHAL’S OFFICE.
SIGN CONSTRUCTION SPECIFICATIONS

1. THE SIGN FACE SHALL BE SIZED AS INDICATED IN CORRESPONDING SPECIFICATIONS AND FABRICATED FROM .080 ALUMINUM SHEET WITH MINIMUM OF .75” RADIUS CORNERS.

2. FONT STYLE USED IS HANDEL GOTHIC BT CAPITAL FONTS WITH ADDITIONAL KERNING BETWEEN LETTERS.

3. THE SIGN FACE SHALL HAVE A WHITE 3M DIAMOND GRADE REFLECTIVE SHEETING (3990 SERIES VIP TYPE IX) APPLIED AS A BACKGROUND.

4. LETTERING / GRAPHICS SHALL BE ONE OF THE FOLLOWING:
   A.) 3M ELECTROCUT FILM RED 1172 OR ORACAL 8300 TRANSPARENT CAL 201C RED, OR EQUIVALENT IN DURABILITY, INVERSE CUT TO ALLOW WHITE REFLECTIVE BACKGROUND TO SHOW THROUGH LETTERING.
   B.) SCREEN PRINTED USING 3M 8801 SERIES TRAFFIC SIGN RED TRANSLUCENT INK.

   BOTH PROCESSES (A or B) WILL ACCOMPLISH A RED FIELD WITH WHITE COPY.

5. WHEN SIGN IS TO BE USED IN BUILDING INTERIORS IT MAY NOT BE REQUIRED TO USE REFLECTIVE BACKGROUND.

6. ALL SIGNAGE AND CHANGES MUST BE PRE-APPROVED BY THE FIRE MARSHAL’S OFFICE.
FIRE DEPARTMENT CONNECTION SIGNAGE

Any building that has an automatic fire suppression (sprinkler) system requiring a Fire Department Connection (FDC) shall indicate the location of the FDC with the appropriate signage.

The FDC sign shall be lettered as shown in the examples and must have the address and suite / suite range (where applicable) that the FDC / sprinkler system covers.

The Fire Marshal’s Office understands that there are unique situations to each building/site and have provided several options to facilitate fire suppression activities; however, due to the complexity of some buildings/sites, the Fire Marshal may require specific lettering and/or additional signage.

Please note: ALL SIGN LAYOUTS MUST BE APPROVED BY THE FIRE MARSHAL’S OFFICE.
It is suggested that the approval is obtained prior to ordering any signage. This will help reduce cost in the event of an error. Below are several examples.

All FDC(s) for new construction shall be Remote. In the event that an existing building has a wall mounted FDC or that FDC is adjacent to the building, the FDC sign may, with approval, be mounted to the wall behind/directly above the FDC seven (7) feet AFF.

For true remote FDC locations, the mounting of the FDC sign shall be on a sign post that extends a minimum of five (5) feet above grade. This allows the arriving fire apparatus to locate the remote FDC promptly. In addition, the street number shall be included as noted in the previous section on FDC signage.
FDC PROTECTION

II. Design Phase: Sign Specification Guide

If an FDC is not directly protected by a fire lane, it shall have posted a 12” x 6” sign that reads “DO NOT BLOCK – BY ORDER OF FIRE MARSHAL” placed on the sign post with the FDC sign or on the riser pipe. This serves as a notice to the general public and as a reminder to property owners and managers that it is a violation of fire code to obstruct the FDC with vehicles, landscaping, etc.

Sign Construction shall be as indicated above.

RISER ROOM SIGNAGE & FIRE PUMP SIGNAGE

Fire sprinkler control rooms (riser rooms) shall be identified with a 12” x 12” sign. In the event the fire alarm system panel and/or other fire department equipment are in the same room as the riser, the sign shall include lettering identifying both.

If a Pump is utilized, the term “FIRE PUMP” shall replace “FIRE ALARM”.

If the Alarm Panel is not located in the Riser Room the Term “FIRE ALARM” shall be deleted and the remainder of the text adjusted appropriately.

All signage must be approved by the Fire Marshal’s Office and additional verbiage or signage may be required.

Sign Construction shall be as indicated above.
FIRE DEPARTMENT RISER SIGNS
FOR MULTIPLE ZONES OR SYSTEMS

If a sprinkler system is supplied with multiple risers, each riser shall be identified using the required signage for the zone or system that it serves.

Each zone or system shall be uniquely identified by geographic service area or by other means and shall be accompanied by a reduced zone map (sprinkler plans) mounted to the wall (protected) and colored keyed.

The following are examples of Zone signs. For separate systems, the system # will replace zone.

Sprinkler drain identification signage will also be required.

POST INDICATOR VALVES

Post indicator valves shall be identified. Sign specifications at the beginning of this document shall be used. Signs shall be posted, with the base of the sign located at 4 feet above grade, on the wall above the PIV or secured to a heavy duty U channel post and secured in the ground with cement. Lettering must be approved by the Fire Marshal’s Office.

**FOR Single PIV**

12” x 12” - .080 Aluminum substrate

Letters – 3” Height

*Sign Construction shall be as indicated above*

**FOR PIV with Bldg. Number**

12” x 12” - .080 Aluminum substrate

Letters – 2.5” Height

*Sign Construction shall be as indicated above*
PUMP TEST HEADER

If a fire pump is installed as part of the building’s fire suppression system, the following sign shall be placed above the pump test header and shall follow the sign construction specs at the beginning of this document.

18" x 12" - .080 Aluminum substrate
“Do Not” – 2” Height
“Pump” – 2.5” Height
“Into These Fittings”- 1.5”

Sign Construction shall be as indicated above

FIRE ALARM

Rooms that contain the fire alarm panel shall be identified with a 6” x 8” sign that reads, “F.D. ALARM PANEL”.

6” x 8” - .080 Aluminum substrate
Letter – 1.25”

Sign Construction shall be as indicated above
Remote Annunciators shall have a sign posted that indicates the location of the main FACP. The sign shall be 6” to 8” wide and 4” high. Letters shall be a minimum of one (1) inch in height and shall read “FACP LOCATED IN ____________”
FIRE DEPARTMENT ACCESS

In the event any fire department access systems (i.e. Knox box, key switches, etc.) serves multiple tenants or is in an area that is not obvious, confusing, not readily identifiable, or where required by the fire marshal the following sign shall be provided and located as approved. Sign specifications at the beginning of this document shall be used.

6” x 8” - .080 Aluminum substrate
Letter – 1.25”

Sign Construction shall be as indicated above
HAZARDOUS MATERIALS IDENTIFICATION

Where compressed gases, hazardous materials or required by the Fire Marshal, an NFPA 704 (Fire Diamond) shall be posted at a location on the premise as approved by the Fire Marshal’s Office.

The sign shall be constructed out of .080 aluminum construction with rounded corners. The sign face shall have a white diamond grade reflective background. Numbers and Letters shall be arranged by color as shown above and be constructed of an engineer grade reflective vinyl.

The materials on site will dictate the numbers in each category. In the event of multiple hazardous materials, the numbers shall reflect the highest hazard of each category.

Numbering shall be a minimum of 3.5” high with an 11/16” stroke width. Lettering for the Special Hazard Box shall be as follows:

One Line: 1 ¾” high w/ 9/16” stroke width
Two Lines: 1 3/8” high w/ 7/16” stroke with
Three Lines: 1 ¾” high w/ 3/8” stroke width
III. FIRE PERMIT PLANS
SUBMITTAL PHASE

Primary audience: All contractors

A. PLANS SUBMITTAL PROCESS

1. Submittal Process
2. Fee Schedule
3. MyGov Instructions for FD Plans Review Submittal
Fire and Life Safety systems that require a separate permit by the Fire Department require a separate FD application, review, and inspection process. For the most seamless process, plans should be submitted as directed in this section.

**Requirements for All Submittals**

1. Determine what permits your projects require. A list is provided at the end of this section.

2. Register your business with the Town of Little Elm

   All contractors and sub-contractors must be registered to do business within the Town of Little Elm through the Town’s Building Permit Office. Registration is free and must be renewed annually. Forms for registration may be found on the Town’s website at [www.littleelm.org](http://www.littleelm.org) or you may contact the Permit Office directly at 214-975-0439.

3. Review the Plans Submittal Requirements applicable to your specific project *(see Appendix A)*. If plans do not adhere to these requirements, they will be returned and the permit process may be delayed.

4. Complete the FD Permit Application Form *(see Appendix B)*

5. Submit the FD Application Form and the completed plans to the Permit Office:

   a. Electronic plans should be submitted according to *MyGov Instructions for FD Plans Review Submittal*

      - A digital graphic RME or other authorized signature is required on all electronic plans

6. The Building Permit Office will forward the Electronic plans to the Fire Marshal’s Office for review. Target review turnaround time is 5 to 10 business days.

7. The submitting contractor will be contacted directly by the Fire Marshal’s Office if corrections are required and arrangements will be made for resubmittal.

8. Approved plans will be stamped and returned to the Building Permit Office. The submitting contractor will receive an email that the plans have been approved and are ready for pick-up.
Little Elm Fire Department  
Fire Marshal’s Office

III.A.1:  
Plans Submittal Process

8. Approved plans will be returned in the format in which they were received after payment has been received by the Town.

9. When payment is received, a permit will be issued and construction may begin. Beginning work without this permit may result in citations, fines, and/or stop work orders as per Town ordinance.

Plans that are approved and permitted by the Town of Little Elm Fire Marshal’s Office give authorization for construction. Final approvals are subject to field verification. Any approval issued by the Fire Marshal’s Office does not release the contractor or property owner from full compliance with applicable codes and ordinances relating to the construction project.

An approved set of plans must be kept on-site at all times. No inspections will be conducted without a set of the approved plans and the permit.

All installations must match the approved plans. Any deviation from the approved plans requires that plans be resubmitted to the Fire Marshal’s Office for review and re-approval.

**Fire and Life Safety Systems Requiring Separate Fire Department Review and Permit**: 

Detailed plans submission requirements for the most common permits may be found in Appendix A

- Fire Alarm
- Fire Alarm (waterflow monitoring only)
- Fire Sprinkler – Commercial and Multi-Family
- Fire Sprinkler – Single-Family Residence
- Standpipe System
- Fire Pump and Related Equipment
- Remote FDC
- Underground Fire Main
- Battery System
- Access Control System (Building)
- Gate Access System (Site/Property)
- Flammable/Combustible Liquids
- Flammable/Combustible Storage Tanks
- LP-Gas
- Compressed Gases
- Hazardous Materials
- Spray or Dipping Operations
III.A.2: Fee Schedule

All permit fees are established by Town Ordinance and are subject to change.

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-CAD Submittal Fee</td>
<td>$50.00</td>
</tr>
<tr>
<td>Alarm</td>
<td>$75.00 + $.017 per square foot or portion thereof</td>
</tr>
<tr>
<td>Alarm (Water-flow monitoring only)</td>
<td>$75.00</td>
</tr>
<tr>
<td>Sprinkler</td>
<td>$75.00 + $.017 per square foot or portion thereof</td>
</tr>
<tr>
<td>Sprinkler (Single Family Residence)</td>
<td>$75.00</td>
</tr>
<tr>
<td>Standpipe System</td>
<td>$75.00</td>
</tr>
<tr>
<td>Fire Pump and Related Equipment</td>
<td>$75.00</td>
</tr>
<tr>
<td>Remote Fire Department Connection (FDC)</td>
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</tr>
<tr>
<td>Underground Fire Main</td>
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</tr>
<tr>
<td>Battery System</td>
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</tr>
<tr>
<td>Access Control System</td>
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</tr>
<tr>
<td>Gate Access System</td>
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<tr>
<td>Flammable/Combustible Liquids</td>
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</tr>
<tr>
<td>Flammable/Combustible Storage Tanks</td>
<td>$250.00 first tank; $75.00 each additional tank</td>
</tr>
<tr>
<td>LP-Gas</td>
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<tr>
<td>Compressed Gases</td>
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<tr>
<td>Hazardous Materials</td>
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</tr>
<tr>
<td>Spray or Dipping</td>
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In addition to permit fees, ordinance provides the ability to add additional fees to a permit for non-compliance.

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
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<td>Two times the permit fee, in addition to the permit fee. Citation may be issued in addition to the imposed fee.</td>
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<tr>
<td>Re-Inspections</td>
<td>$75.00 for the first failed inspection $150.00 2nd Inspection, Fee Doubles each inspection to a max of $600.00</td>
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Little Elm Fire Department  
Fire Marshal’s Office

III.A.3:  
MyGov Instructions for FD Plans Review Submittal

The Town of Little Elm utilizes the online permitting site www.MyGov.us for all project (permit) activities, including contractor registration, project application, project status, and inspection requests.

PROJECT APPLICATION

Projects (also known as “permits”) can be applied for online or in person. If you choose to apply online you will begin by entering your username and password in www.MyGov.us to access your contractor home page. Click on “Request Project” in the right hand column. This will take you through a series of pages requesting specific information about the project for which you are applying.

Page 1 – Set Project Type

On this page you will be asked to provide which agency you are applying with. If you are registered with multiple agencies they all will show here. Be sure you select “Town of Little Elm”. In the project type, select the type of project for which you are applying. IMPORTANT: You have to be associated by license for most projects. If your project type is not showing, contact the Building Permit office. Finally you will be asked for a brief description of the proposed work.

Page 2 – Set Location Information

This page is where you will associate your project to an address. Enter the address number and the street name and click on the “search address” link to the right. You will be given the opportunity to select from a list of address. It is important that you select the right address. If you have any questions, contact the Building Permit office. You can verify by obtaining the Location ID from the primary contractor.

Page 3 – Set Project Information

This page will give you an opportunity to select the appropriate fees associated with the project. Fees are set by ordinance and improper selection of fees can be corrected by the plans examiner. Check the box under “set fees” and if a quantity is necessary, enter the appropriate information.

Page 4 – Summary (Submit Application)

On this page, you will verify the project address, fees, description, and other pertinent property and project information. If all information is correct, click “Submit Application”

The project request is then sent to our permitting office. Once reviewed, a project number will be assigned. This number will be the means of identifying your project. Using your username and password in www.MyGov.us, from the home page you will now select “My Projects”. You will see the project number and address listed with a magnifying glass symbol. When clicking on this symbol, the project is opened where you can now pay permit fees. By clicking on the crossed wrench/hammer symbol, you may print your permit.

SUBMITTING PLANS

After completing the application process on www.MyGov.us, you will still need to submit the plans separately.
III.A.3:
MyGov Instructions for FD Plans Review Submittal

Plans are to be in PDF format in a single file and sent via email or Hightail (see below). 11 x 17 is the preferred sheet size with 1/8” scale. Larger pages shall be scalable plans that are able to be measured using Adobe Acrobat Pro. Also include all associated specification books, material data sheets, scope of work letters, etc.

- Email Plans – fmo@littleelm.org

Your project number must be reference in the subject line of the submittals.

If you are unable to provide electronic plans, please bring a full set of plans and specification to the permits office and the plans will be scanned in and returned to you electronically. There is a nominal fee for this service.

QUESTIONS USING WWW.MYGOV.US

Other process not mentioned above follow similar user friendly functions from the contractor home page. For specific questions relating to MyGov.us and the project processes, please contact the Town’s Permits Department. 214-975-0456 or permits@littleelm.com.
IV. INSTALLATION and CONSTRUCTION PHASE

Primary audience: Site Supervisors, General Contractors, Sub-Contractors

A. FIRE DEPARTMENT INSPECTIONS

1. General Guidelines
2. MyGov Instructions for FD Inspection Requests

B. CONSTRUCTION SITE

1. Housekeeping
2. Site Access and Fencing
3. Construction Fuel Tanks
IV.A.1:
FD Inspections General Guidelines

GENERAL NOTES:

ALL INSPECTIONS REQUIRED BY THE FIRE DEPARTMENT SHALL BE CONDUCTED BY FIRE DEPARTMENT PERSONNEL FOLLOWING THE GUIDELINES SET FORTH IN THIS SECTION. 48 HOURS NOTICE IS REQUIRED FOR ALL FIRE DEPARTMENT INSPECTIONS AND ARE SCHEDULED ON A FIRST-COME, FIRST-SERVED BASIS.

- All fees due in reference to the permit being inspected must be paid in full prior to requesting an inspection.
- ONLY the PERMITTING COMPANY may request inspection and MUST be onsite for the inspection.
- No partial inspections will be performed.
- A Pre-Test Inspection Form must be filled out completely and signed (see Appendix D). This form shall be faxed, emailed or delivered in person to the Fire Marshal’s Office, and will act as your inspection request. Upon receipt, the Fire Marshal’s Office will contact the permitting contractor directly to schedule the inspection.
- The system being inspected shall be complete and ready to inspect at the time scheduled. Any work being done at the time of inspection or failure of any part of the system is an automatic failure. A re-inspection fee will be assessed and the inspection will have to be rescheduled.

FIRE ALARM:

- TxFMO Licensed Tech shall be onsite for all inspections.
- A total of two personnel shall be provided by the alarm company, with working, two-way communication.
- All trades tied to the alarm panel must have a representative available at the acceptance test, including but not limited to, HVAC, elevator, sprinkler, hood suppression, access control, etc.
- Central Station Monitoring must be set up and active at the time of inspection.
- All trades and final clean are required to be completed in accordance with NFPA prior to scheduling Alarm test.

FIRE SPRINKLER:

- A TxFMO Licensed IMT shall be onsite for all inspections (except one and two family installations).
- All piping, hangers, connections, or other components shall not be covered before inspection and must be visible from the walking surface.

HOOD SUPPRESSION SYSTEM:

- All electrical, gas, and mechanical (vents) shall be operational in order to perform this inspection.
- If tied to an alarm system, the hood system inspection shall be conducted at the same time as the alarm.

UNDERGROUND FIRE MAIN:

- For visual inspection, piping shall not be covered and all bells and connections shall be visible. The pipe lettering (DR and Class No.) shall be facing up so it is readable from grade.
- Fire Department will inspect from the tap to the riser stub-out inside of the building.
- Visual inspection may be conducted separate from the hydro.
IV.A.1: FD Inspections General Guidelines

UNDERGROUND STORAGE TANKS

- TCEQ representative must be on site during inspection
- Notify the Fire Marshal’s Office of tank delivery schedule
- Air pressure reading will be taken / soap test performed, prior to setting tank.
- Once tank is in the excavation pit, air pressure will be read, strapping and sump tubes will be inspected.
- Distribution lines will be tested as appropriate when installed.

FINAL INSPECTION:

- All Fire Department related permits must have successfully passed all required inspections and re-inspections, prior to scheduling final.
- All Fire Extinguishers, including newly purchased, must be inspected and display a current State Fire Marshal’s Office Inspection Tag.
- A “key-safe” (Knox® Box) is required to be installed on all buildings. Location will be determined by the Fire Marshal’s Office.
- Shell buildings shall have one Knox®-Box of appropriate size for all tenants. Each Tenant is responsible to provide a key to the inspector at the time of fire final.
- Premise Address must be permanently affixed to the building, front and rear. Suite numbers shall be placed over the main entrance and rear doors. See Section II, Building Addressing for address placement and size/stroke requirements.
- All utility (electric/gas/etc.) shall have the suite number affixed to the meter.
- All required Fire Department Signs shall be installed according to Section II, Sign Specification Guide.
- Exiting systems shall be clear and unobstructed. Proper hardware shall be installed on all exit doors. Dead bolts, slide bolts, bars or other similar type of securing device are not allowed on secondary exits.
- Exit signs and emergency lights shall transfer to battery back-up and function properly when tested.
- Assembly occupancies must have a Maximum Occupancy Load Sign prominently displayed near the main entrance.
- The Fire Department will not release their approval for CO issuance until all Fire Department related items are completed and the Fire Final has passed without exception.
IV.A.2: MyGov Instructions for FD Inspection Requests

The Town of Little Elm utilizes the online permitting site www.MyGov.us for all project (permit) activities, including contractor registration, project application, project status, and inspection request. You must be registered with MyGov to request inspections (See Section III, Submittal Process).

INSPECTION REQUEST

With the “Request Inspection” capability in place, the contractor will have the option of completing the “Pre-Test Certification/Inspection Request Form” found in Appendix D or requesting their inspection via the MyGov system. The same general guidelines must be followed as outlined in the previous section. Fire Department inspections will only be carried out by Fire Department personnel and must be scheduled directly with the Fire Department 48-hours in advance.

You can access the inspection request in two ways: from www.MyGov.us; via the contractors’ home page or the project overview page.

Home page:

On the left hand column under “My Inspections” you will see the line “Available”. To the right of “Available” you will see a number, if you have any inspections available; the number will indicate how many inspection steps are ready for inspections. You may click that link to take you to the inspection request menu. Another means is to simply click on “Request Inspections” at the top of the right column, which will take you to the list of available inspections.

Active Project Page:

On this page you will see all the steps associated with your project. If the step is an inspection step (identified as such next to the step name) and is available for inspection, it will appear with blue text on a gray background and show a status of “Awaiting Request”.

Once you have selected the inspection you want to request, the Inspection page will open. On this page you will click the blue bar “Request Inspection”. Follow any prompts and the request will be submitted to the Fire Department.

Once the inspection request is received, the Fire Department Inspector will contact you via phone or email as listed in the contractor information associated with the permit to schedule an inspection date and time.

Re-inspections and inspection results can be reviewed by going to the active project page. We hope that by utilizing this system, the Town and the Fire Department will be able to standardize inspection requests, facilitate the inspection process, and enhance the contractors experience with the Town.

QUESTION USING WWW.MYGOV.US

Other process not mentioned above follow similar user-friendly functions from the contractor home page. For specific questions relating to MyGov.us and the project processes, please contact the Town’s Permits Department. 214-975-0456 or permits@littleelm.com.
IV.B.1: 
Construction Site Housekeeping

The purpose of this section is to give the Site Supervisor a list of common issues that arise on-site that should be avoided in order not to incur citations, fines, or stop work orders. This is not intended to be a comprehensive list. It is the responsibility of the Site Supervisor and/or General Contractor to ensure the site is safe and accessible at all times.

1. Fire lanes should be clearly marked and kept clear and unobstructed at all times. Loading and unloading of materials is acceptable, however vehicles may not be parked or standing in fire lanes.
   a. Many workers tend to park as close to their work area as possible. The owner of the vehicle may be issued a citation for blocking the fire lane at any time. Ultimately it is the Site Supervisor that is responsible for keeping the fire lane clear and is subject to citation as well.
   b. No construction equipment, material, or debris may be kept, stored, or left in the fire lane for any length of time beyond what is necessary for a particular activity. Items may not be left overnight or unattended.
   c. Temporary fire lanes must be approved prior to installation. Gravel may not be used as a temporary fire lane. Should changes to a temporary fire lane become necessary, those changes must be approved by the Fire Marshal’s Office.

2. Site Safety
   a. All rules and regulations set forth by the fire department, OSHA, TCEQ, and others for site safety must be observed and adhered to at all times. Violations of safety regulations may result in citations as well as a Stop Work Order on the site.

3. Site Plans
   a. A sealed set of site plans and a copy of the applicable permit must be kept on site and easily accessible at all times. This includes plans and permits for all trades on site including fire sprinklers, fire alarms, and other activities requiring a permit. Failure to have these records on site is considered working without a permit and subject to additional fines and/or a Stop Work Order.

4. Inspections
   a. It is the responsibility of each General Contractor and Sub-Contractor to make themselves aware of the requirements for inspections on-site. Underground piping must be laid with the identifying lettering facing upward, ceilings may not be closed until they have been appropriately inspected, etc. If inspectors cannot easily identify or verify the work that is done, rework may be required (such as turning underground piping and opening ceilings).

5. Fueling of Construction Equipment
   a. Temporary fueling tanks for construction equipment must be permitted and adhere to safety measures and required separation distances set forth in the adopted IFC. Appropriate protective measures of the fueling site must be taken and maintained at all times.
IV.B.2: Site Access and Fencing

Site access must be maintained at all times as outlined in the previous section titled *Housekeeping*. Site access is not only imperative for fire apparatus but ambulance apparatus as well.

Security is often a concern on construction sites to protect valuable equipment and to control access by unauthorized personnel. Security fencing may be used and appropriate locking mechanisms and signage must be visible with the appropriate identification and instructions. Locking systems should include Knox® padlocks or other appropriate Knox® locks. Other automatic and manual gate configurations may be found in *Appendix A*.

**Manual Gate Locks:**

![Manual Gate Locks Image](image-url)
IV.B.2: Site Access and Fencing

Construction Gate Signage

- 8” LETTERS X 1/4” STROKE
- 3” LETTERS X 5/8” STROKE
- F.D. APPROVED KNOCK PADLOCK
- SIGN PLATE SHALL BE A THICKNESS OF .080 ALUMINUM
- THE SIGN FACE SHALL HAVE A WHITE REFLECTIVE BACKGROUND WITH RED LETTERING
- ALL PERMANENT GATES REQUIRE FIRE PERMITS
IV.B.3: Construction Fuel Tanks

Protection of fuel tanks used for on-site construction fueling must adhere to IFC 2018 and NFPA 30 and/or 30A where applicable. Job sites that are expected to last for an extended period of time, though temporary for the site, may be required to adhere to permanent tank guidelines as deemed necessary by the Fire Marshal’s Office.

Temporary construction tanks may not exceed 11,000 gallons and shall be of the single compartment design. Distances between tanks, right-of-ways, and property lines shall adhere to requirements outlined in IFC 2018.

Tank areas must be kept free of combustibles including debris and high grass. Tanks must display the appropriate signage and placarding as set forth in the section titled Sign Specification Guide and NFPA 704.
V. CERTIFICATE OF OCCUPANCY PHASE

Primary audience: Building Owners, General Contractors

A. PROJECT FINISH OUT

1. Certificate of Occupancy Release Policy
2. Checklists for Final Inspection
V.A.1: Releasing of Certificate of Occupancy

This policy is intended to cover the requirements of the Little Elm Fire Marshal's Office only. It is the responsibility of the business or contractor to comply with and obtain inspections from the appropriate departments of the Town of Little Elm (i.e. Fire, Health, Engineering, Building, Planning).

It is the policy of the Town of Little Elm's Fire Marshal's Office to inspect all new businesses as required for compliance with the fire code prior to the issuance of a CO. For the purpose of the document, a "new business" is defined as any business required by the Town of Little Elm Building Department to obtain a Certificate of Occupancy.

The Fire Marshal's Office will inspect all new businesses for compliance with fire code.

The Fire Marshal's Office will NOT release a CO until all fire department issues found during the FD's initial and any follow-up inspections are satisfied.

Due to the fact that the Fire Marshal's Office CO inspection is used to determine the compliance with fire code, life/safety code and fire fighting and property conservation operations, the Fire Marshal's Office will not authorize the release of a Temporary Certificate of Occupancy.

All system inspections (i.e. Fire Sprinkler, Fire Alarm, Hood, where applicable) must be completed without outstanding issues prior to the scheduling of a Fire CO Inspection.

To schedule a Fire CO Inspection, a Fire CO Inspection Request form (see Appendix D) shall be completed and provided via fax, email (FMO@littleelm.org), or other appropriate means to the Little Elm Fire Marshal's Office. At that time a Fire Department inspector will contact the sender to schedule an appointment to meet at the business location. All Fire CO inspections and re-inspections must be scheduled 24 hours in advance and will be scheduled directly with Fire Department personnel. It is the responsibility of the business/contractor representative to request all CO inspections.

Fire CO inspection / re-inspection fees will be accessed according Permit Re-Inspection Fees, of the locally adopted fire code. All fees must be paid prior to scheduling follow-up inspections.

The Fire CO Inspection may be scheduled through the Fire Marshal's Office at the same time or after scheduling the Building Department’s Final Building Inspection. All Fire Department inspections are independent of other departmental inspections.

All businesses are responsible and required by law to maintain fire code related issues at all times.

Conducting business without a valid TCO or CO is a violation of Town Ordinance. Failure to comply will result in the closure of the business and a citation issued requiring an appearance in court. Each day of non-compliance is a separate offense.

If you have any questions please contact the Little Elm Fire Marshal's Office at 214.975.0417.
V.A.2: Checklist for Final Inspection

This checklist is intended as a guideline to assist the building owner and general contractor with adhering to the expectations of the Fire Department during the final inspection. Not all items are included, and not all items will apply. This checklist is a guideline only and does not relieve the responsible parties from adherence with fire codes and local ordinances.

General Checklist for Final Inspection

- Fire lanes clearly marked per Town Ordinance
- Fire hydrants face fire lanes and are painted to Town Standards
- Fire Department Connections are unobstructed and clearly marked according to the Fire Marshal’s Office Sign Specifications Guide
- Fire Alarm System (where applicable) has been tested and accepted by the Fire Marshal’s Office. No outstanding issues remain and a current State FMO tag is affixed.
- Fire Sprinkler System (where applicable) has been tested and accepted by the Fire Marshal’s Office. No outstanding issues remain and a current State FMO tag is affixed.
- Kitchen Hood Suppression System (where applicable) has been tested and accepted by the Fire Marshal’s Office. No outstanding issues remain and a current State FMO tag is affixed.
- Portable fire extinguishers are mounted and unobstructed. All extinguishers, including newly purchased extinguishers, must have a current State FMO tag affixed.
- Exit paths (means of egress) are unobstructed and clearly discernable. Exit signs and emergency lights have battery back-up and function properly.
- The appropriate Knox® key safe is installed and contains all necessary keys. Whenever keys are replaced, a copy must be provided to the Fire Marshal’s Office for placement in the Knox® Box.
- The building must be in compliance with the Fire Marshal’s Office Sign Specifications Guide in all areas including but not limited to: riser rooms, alarm panels, FDCs, hazardous materials, access gates, etc.
- Assembly occupancies must have a Maximum Occupancy Load sign prominently displayed.
- Premise address must be permanently affixed to the building. Locations and dimensions of address numbers/letters are found in the Building Addressing section of this guide. Utility meters (gas/electric) must have the address/suite number of the supplied occupant affixed.
APPENDICES

A. FIRE SYSTEM DESIGN & PLANS

1. Fire Lane Guidelines
   a. Commercial and Multi-Family
   b. Single-Family and Subdivision
2. Fire Hydrant Guidelines
3. Underground Fire Main & Fire Department Connections
4. Fire Sprinklers
   a. Waterflow Alarm
5. Building Fire Alarm
6. Commercial Type I Hood Suppression
7. Above Ground Fuel Storage Tanks
8. Underground Fuel Storage Tanks
9. Access Control & Delayed Egress (Internal Building)
10. Automatic Access Gates (Vehicle)

B. FD FORMS

1. FD Permit Application
2. FD Inspection Request
3. Building CO

C. 2018 LOCAL AMENDMENTS

D. POLICY STATEMENTS
A.1:
Fire Lane Guidelines

Fire lanes and apparatus access roads must adhere to the following guidelines and shall be clearly marked on all site plans regardless of development phase with widths and turning radii included:

COMMERCIAL, MULTI-FAMILY FIRE LANES

1. Width:
   - Single floor = 24-foot minimum
   - Two or more occupiable floors = 26-foot minimum (rooftops used for commercial purposes are considered an occupiable floor)

2. Turning Radius:
   - Prescriptive design: 30-foot radius for 24-foot fire lane
   - Performance-based design: WB50 dimensions to be used (minimum 20-foot radius preferred). Contact the Fire Marshal’s Office for exact dimensions.
     - An engineered turning radius study is required for every performance-based design proposal. Proposal must include wheel track, speed, and direction of travel.

3. Distance to Structure:
   - Non-Sprinklered = 150-feet, Sprinklered = 250-feet
   - Measured around a 10-foot unobstructed pathway from the centerline of the fire apparatus access road to all exterior points of a structure as a hose-line lays. A 5-foot path through obstructions, including parked cars and fences, may be used to achieve the required distance.

4. Vertical Clearance: 14-feet

5. Access:
   - Two points of access to each property or subdivision is required

6. Engineering:
   - All fire lanes shall be of concrete a minimum of 6-inches thick with #3 rebar, 18” on center, engineered to Town standards. Fire lanes must use 6-inches of lime but may allow 2” of concrete in lieu of lime with Town pre-approval.

7. Temporary concrete methods may be used during construction when pre-approved. Gravel may not be used.

8. All commercial and multi-family fire lanes must be installed and marked before vertical construction can begin.

9. Dead-end fire lanes are not permitted. A turnaround proposal may be submitted for review.
A.1: Fire Lane Guidelines

10. Markings:
   • **Striping:** Marked by painting lines of red traffic paint 6-inches in width at the boundaries of the fire lane as indicated on the plat. The words “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” shall appear in 4-inch white letters at 25-foot intervals on the red border markings on both sides of the fire lane. Where a curb is available, the striping shall be on the vertical face of the curb.
   • **Signs (with approval):** Shall read “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” and shall be 12-inches wide and 18-inches high. Signs shall be painted on a white background with letters and borders in red, using not less than 2-inch lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be 6-feet, 6-inches above finished grade. Signs shall not be spaced more than 50-feet apart. Signs may be installed on permanent buildings or walls as approved by the Fire Marshal.

**SUBDIVISIONS AND SINGLE-FAMILY DEVELOPMENTS**

**General:**
   • Within 150 feet of all exterior walls measured along a 10-foot unobstructed pathway.
   • Two separate points of access to each subdivision.
   • Block length may not exceed 1,000 feet.
   • Cul-de-Sac length may not exceed 500-feet.
   • 100-foot diameter turnaround shall be provided.
   • 14-foot vertical clearance above access roads required.

**OTHER CONSIDERATIONS**

**Speed Control Devices**

   • A separate permit is required for the installation of speed control devices located in a fire lane.
   • These devices shall be constructed of durable molded plastic or of concrete.
   • Suggested dimensions of a speed control device are 2’ wide and no greater than 6” tall.
   • The speed control device shall be a continuous curve.
A.1:
Fire Lane Guidelines

Hydrants / FDC Striping

Fire hydrants, remote fire department connections or other fire department equipment may require that an area be striped to prevent obstruction of such by the parking of vehicles or other equipment. In these situations, striping shall be approved by the Fire Marshal. Example of striping is provided in the following figure:

Hose Valve Striping
A.1:
Fire Lane Guidelines

Brick Pavers

In lieu of painting, brick pavers that are used for decorative purposes may be used for fire lane marking. Pavers must be easily identifiable, red in color and shall have stamped in the pavers “FIRE LANE NO PARKING” in white lettering. No other color scheme will be allowed.

“Grasspavers”

- When approved, ‘grasspavers’ may be used as an alternative to the standard concrete drive.
- An obvious delineation between the pavers and the non-paved area is required.
- Signage or striping will be required of entrance and/or along the fire lane to prevent obstruction.
- Each site is unique and design and marking will be discussed with the Fire Marshal’s Office during development.
# A.2: Fire Hydrant Guidelines

## ALL DEVELOPMENTS

### Spacing:
- **Commercial:** Non-Sprinklered = 300 feet; Sprinklered = 500 feet
- **Multi-Family:** Non-Sprinklered = 300 feet; Sprinklered = 400 feet
- **Residential:** Non-Sprinklered = 500 feet; Sprinklered = 600 feet

### Connection:
- **Commercial:** A 5-inch Storz quick connect shall be required.

### Availability:
Two hydrants must be available and unobstructed to each property or structure within the spacing distance required.

### Location:
- 50-feet from structure or structure height + 10 feet (collapse zone).
- Not located within the turning radii or bulb of a cul-de-sac.
- 2-feet to 6-feet behind curb, 3-foot radius unobstructed clearance.
- Within 100-feet of a Fire Department Connection (where required).

### Water Supply:
- 12-inch main required for up to two hydrants
- 12-inch main required for more than two hydrants (underground fire main for sprinkler systems is considered a hydrant for the purpose of this requirement).

### Marking:
- Shall be painted according to NFPA 291 and Town of Little Elm requirements.
- A blue, two-sided reflector shall be affixed to the center line of each roadway or fire apparatus access lane opposite fire hydrants.
A.3: Underground Fire Main and Fire Department Connections

A separate permit is required for each underground fire main and each FDC. Plans must show location, size, lengths, piping type, and embedment detail.

UNDERGROUND FIRE MAIN

- Fire department will permit and inspect the main from tap/valve to the building. Pipe labeling must be upward facing and visible during inspection.
- Provide a minimum of 10 feet of separation between fire sprinkler line and all other utilities
- Provide a minimum of 2 feet of vertical clearance when crossing other utilities
- Rods and nuts shall be stainless steel
- If PVC is used, Class 200 PVC AWWA C900 DR-14 at a minimum will be used for any main size
- Thrust blocks shall be provided in accordance to NFPA 24
- Underground embedment shall be No. 4 crushed stone.
- 8” minimum main size required. 6” may be accepted if hydraulically proven to be adequate.

FIRE DEPARTMENT CONNECTION

- All FDCs shall be remote from the building and placed adjacent to the fire lane (see Remote FDC detail, next page)
- FDCs shall be located at a maximum of 100-feet from an accessible fire hydrant
- FDCs shall not be placed where they may become obstructed by parking spaces, landscaping, or building components
- FDC piping shall be 4” with 5” Storz connections
- FDCs serving more than 500gpm shall be provided with one 5” Storz connection and one 2-2.5 siamese connection
A.3:
Underground Fire Main and Fire Department Connections

REMOTE FIRE DEPARTMENT CONNECTION DETAIL
FOR "STORZ" CONNECTION
These guidelines are to be followed when an automatic fire sprinkler system within the Town of Little Elm is to be installed or modified. These guidelines are not to be interpreted as containing all data required for proper design, installation, or approval.


Local Design Requirements:

- Riser room shall be large enough to accommodate personnel, facilitate maintenance and testing of the sprinkler components. 6’ x 6’ is standard and proposed adjustments may be considered
- Riser rooms shall have a hardwired permanent heater.
- Sprinkler systems for all strip retail centers, multiple tenant buildings, speculative warehouses, or any other multiple tenant building, regardless of ceiling height, shall be designed to provide a minimum of Ordinary Hazard Group 2 for Class IV commodities.
- Double Check/Backflow Preventer is required and shall be installed inside the building.
- The system shall be designed with a 10 psi safety factor
- Access to sprinkler riser room shall be from the exterior of the building. The door must be labeled as the riser room in accordance with the Section II, Sign Specification Guide
- In buildings exceeding 10,000 square feet in area per story, Class I automatic wet or manual wet standpipes shall be provided where any portion of the building’s interior area is more than 200 feet of travel, vertically and/or horizontally, from the nearest point of fire department vehicle access.
- Inspector test connections, drains, and ball-drips shall be piped directly to the exterior.
- Sprinkler drains and other components must have appropriate signage.
- At least one inspection test valve shall be located at the remote system area.
- Each floor shall be equipped with a control valve and waterflow switch
- Dry-system air compressors shall be hard wired
- Pre-action system solenoids shall be wired for alarm activation upon current loss.
- Reduced Pressure Zone valves shall be used on antifreeze systems
- Elevator shaft tops shall not be sprinklered
- Porches and balconies shall be sprinklered on all R-1 occupancies requiring sprinkler protection
- Drip drums shall be in heated areas
- A high- and low-pressure alarm is required for all dry systems (10-psi/50-psi)
- Provide a 1-inch (minimum) water meter for single family residential systems (see Figure 1)
- Hose valves shall be 2.5-inch with a 1.5-inch reducer cap and chain
- Atriums shall have water curtains
- Pressure-reducing valves shall have a 3-inch pipe to drain directly to the outside
- Fire pumps shall be equipped with a properly sized test header
- Balcony closets of Multi-Family dwellings shall be sprinklered
High-piled storage:

- Under 12,000 square feet:
  - Rack plans are required prior to sprinkler plan approval
- Over 12,000 square feet:
  - Rack plans are required prior to sprinkler plan approval
  - Smoke and heat vents shall be shown as an overlay to the sprinkler plans

**Submittal Requirements**

Prior to fire sprinkler system submittal, the underground fire line plans and FDC plans must have been submitted and approved. Underground plans must be included as a reference for hydraulic calculations.

Plans shall be clear and legible and all sheets shall be in a common and appropriate scale. **Electronic submissions are required.** Plans shall contain sufficient detail to enable the plans reviewer to accomplish a complete review. Plans that do not conform to the submittal requirements and/or are not clearly legible will be returned and require a re-submittal.

Each plan shall include:

- Little Elm Fire Department Permit Application
- Copy of State of Texas Fire Sprinkler RME-G license is required for installing contractor.
- A copy of State of Texas Fire Sprinkler SCR license is required for the installing company.

The following information shall be provided on all plans:

- Title block that contains the following:
  - Business name and address of installation
  - Name, complete address, and phone number of the installing company
  - Licensing information
  - Date Drawn / Drawn by
    - “Wet” RME Signature (hardcopy submissions)
    - Designed in accordance with the 2018 International Fire Code, current edition of NFPA 13, Town of Little Elm Local Ordinances, and the Fire Marshal’s Office Procedures and Specifications Guide
    - A.H.J. as the Town of Little Elm
    - Graphical scale
    - Scaled Floor plan with square footage
    - Use of each room is identified
A.4:
Fire Sprinkler Systems

- Commodities classification of storage areas
- North arrow provided
- Site plan to include all fire hydrants, fire lanes, fire department connections
- A legend shall be provided to include: Symbols, sprinkler description, manufacturer, model
- Number, and quantity for each device, pipe, and fittings type
- A complete full-height cross section of the building
- Area of coverage of each sprinkler head
- Total area protected by each system
- Capacity of dry or antifreeze systems
- Hydraulic node symbols
- Elevations of sprinkler lines & node points
- Hanger details and locations
- Sprinkler riser diagram
- Inspectors test connection detail
- Auxiliary drain details
- Design density of each design area
- Clearly indicate each remote area
- Provide notes to indicate the Responsible party concerning freeze protection and insulation of piping
- Water supply test information

Specification booklet shall contain the following:
- Scope of Work
- Equipment List
- Manufacturer’s specifications sheets
- Water capacity information / Waterflow test sheet
- Hydraulic calculations for each design area
- Hydraulic Calculations shall include:
  - “Wet” RME signature
  - Summary sheet.
  - Water supply graph sheet
  - Supply analysis
  - Node analysis and Worksheet
A.4: Fire Sprinkler Systems

Figure 1: Residential Sprinkler Line

Ball Valve and meter shall be located in the same "can".
Line to fire riser shall be locked in the open position and be labeled per NFPA.
A.5: Fire Alarm Systems

These guidelines are to be followed when a fire alarm system within the Town of Little Elm is to be installed or modified. These guidelines are not to be interpreted as containing all data required for proper design, installation, or approval.

Fire alarm systems shall comply with 2018 International Fire Code, Town of Little Elm Local Amendments, and current edition of NFPA 72.

Where 30% of the alarm, as measured by total building area, is modified under one permit application or 50% is modified cumulatively from the time of initial installation, the entire system must be brought into compliance with the most current NFPA 72 standard.

Plans shall be clear and legible and all sheets shall be in a common and appropriate scale. **Electronic submissions are required.** Plans shall contain sufficient detail to enable the plans reviewer to accomplish a complete review. Plans that do not conform to the submittal requirements and/or are not clearly legible will be rejected and require a re-submittal.

**Local Design Requirements:**

- Alarm must sound in three-pulse temporal pattern
- Duct detectors shall sound as supervisory signal only
- Weatherproof horn strobe is required outside the riser room
- A remote annunciator is required at the main entrance or at the riser when the alarm panel is located in an area other than the main entrance of a building or in the riser room. The annunciator shall have a sign posted identifying the location of the main FACP. “FACP located in _______” shall be written in white letters on a red background.
- All alarm systems must be fully addressable. Alarms shall not be permitted to be transmitted as a General Alarm or Zone condition.
- Sound systems for voice, music, or other sound shall be provided with a shunt mechanism to disable the circuit to eliminate potential conflict of the audible notification devices
- A secondary transient surge suppressor on the incoming power line must be provided (in addition to any suppressor built into the panel)

**Each plan submittal shall include the following:**

- Little Elm Fire Department Permit Application
- A copy of State of Texas Fire Alarm APS license is required for the designing contractor
- If System is designed by a PE: A State of Texas Engineers stamp is required on all pages
- A copy of State of Texas Fire Alarm ACR license is required for the installing company
The following information shall be provided on the plans:

- APS or PE signature and stamp. A “wet” signature is required on electronic submittals.
- Licensing information.
- A.H.J. as the Town of Little Elm.
- Designed in accordance with the 2018 International Fire Code, and current edition of NFPA 72.
- Title block that contains the following:
  - Business name & address of installation
  - Installing company’s name, address, and phone #
  - Licensing information
  - FIRE ALARM SYSTEM
  - Date Drawn / Drawn by
- A legend that contains the following: Symbols, descriptions, manufacturer, model number, and quantity for all devices shown on plans
- North arrow
- Floor plan
- Device locations
- Device address numbers provided for addressable/analog intelligent systems
- Type of device
- Provide a “point-to-point” wiring configuration
- Fire alarm control panel
- Annunciators
- Square footage
- Location of doors
- Intended use of each room
- Location of all air-handling units
- Show locations of all fire sprinkler risers, flow switches, tamper switches, and fire pumps (if equipped)
- Notification devices with candela rating
- Heat detectors with temperature rating
- Length of wiring between devices.
- The notification device wiring shall be shown different from the initiating device wiring.
- The notes shall clearly indicate that all systems shall be Class “A” wired with a minimum of 4-foot horizontal and 1-foot vertical separation between supply and return circuits
  - Initiating circuit wiring shall be Class A
  - Signaling circuit shall be Class A
  - Notification circuit shall be Class B
- Primary power to be a dedicated circuit
- Fire alarm panel must be supplied with a secondary transient surge suppressor on the incoming power line (in addition to any suppressor built into the panel).
- The riser diagram shall include all devices as they are shown on the plans, or wired.
- Sequence of Operations in matrix format
A.5: Fire Alarm Systems

- Acceptable Signal Transmission type as follows.
  - hard-wired telephone line on a public switched telephone network (PSTN)
  - GSM 4G Cellular Communicator
  - RF Radio Communicator

The Specification booklet shall contain the following:

- Scope of Work Statement
- Data specifications sheets for all devices and equipment
- Listing of the system design, operation, and rest functions
- Specific materials in the specification booklet are to be identified by an arrow or highlighter
- Battery discharge curves
- Wire specifications, identification on the gauge and type of wire used
- Equipment List
- Contact ID/Address table
- Type of primary power and secondary power (i.e. size and number of batteries to be provided)
- Device mounting height diagrams
- Voltage drop calculations clearly indicating each notification device and wire length
- Battery calculations including Standby and Alarm
A.6: Commercial Type I Hood Suppression Systems

This guideline identifies protection for commercial cooking surfaces and appliances by Type I Hood Suppression Systems which include: deep fat fryers, griddles, upright broilers, char broilers, range tops and grills, open face ovens, salamanders, cheese melters, woks, open face pizza ovens, pizza conveyor ovens and other similar equipment. Domestic appliances used for commercial purposes shall also comply with this guideline.

These guidelines are not to be interpreted as containing all data required for proper design, installation, or approval. All commercial hood systems shall conform to the 2018 International Fire Code, as adopted and amended by the Town of Little Elm, 2018 International Mechanical Code as adopted and amended by the Town of Little Elm, and current editions of NFPA 17/17 A.

Plans shall be clear and legible and all sheets shall be in a common and appropriate scale. Electronic submissions are required. Plans shall contain sufficient detail to enable the plans reviewer to accomplish a complete review. Plans that do not conform to the submittal requirements and/or are not clearly legible will be rejected and require a re-submittal.

Local Design Requirements

- The piping shall be rigidly supported to prevent excessive movement and shall be protected from mechanical or other damage.
- All systems shall meet UL 300.
- A minimum of one manual activation pull station shall be provided in the path of egress, and shall be located no more the 5 ft. above the floor.
- Where multiple manual actuators are installed for protection of separate extinguishing systems, they shall be clearly identified as to the appliance/area being protected.
- Activation of the fire suppression system shall automatically shut-off the fuel supply, electrical outlets, ventilation controls if required, fans, and any other equipment necessary.
- When a building fire alarm system is provided, activation of the fire suppression system shall transmit full addressable information in accordance with the Fire Alarm Guidelines.
- Pre-engineered fire suppression systems shall be installed only by companies and individuals licensed by the State of Texas State Fire Marshal’s Office.
- One temperature probe shall be installed in each hood set to 100 degrees, to operate the exhaust fan.

Each Plan Shall Include:

- Little Elm Fire Department Permit Application
- A copy of the applicable State of Texas Fire Extinguisher license is required for the designing contractor, Type PL, A, or K.
A.6: Commercial Type I Hood Suppression Systems

- A copy of State of Texas Fire Extinguisher ECR license is required for the installing company.

The following information shall be provided on plans:

- Title block that contains the following:
  - Business name & address of installation
  - Installing company’s name, address, and phone #
  - Licensing information
  - Date Drawn / Drawn by
- Indicate compliance with UL 300 and NFPA 17 / 17 A
- A “Wet” FEL signature required for non-pre-engineered systems.
- Scale or suitable dimensions
- Hood dimensions including duct perimeter
- Appliance dimensions and description
- Piping schematic
- Nozzle type and location. Rubber nozzle caps shall not be used below the filter level. Metal or foil caps are the only acceptable caps
- Location and temperature of the fusible links
- System flow point capability
- System flow points used
- Interconnection to the building fire alarm system or sprinkler monitoring system
- Interconnection to the fuel shut-off
- Distance to and location of pull station (30-foot maximum)
- The plenum space within the hood and exhaust ducts shall be protected.
- A minimum of one drawing shall be provided in 3D/Isometric view of the hood, ductwork and protected appliances.
- A floor plan shall be provided and shall indicate the location of the kitchen hood itself, electrical panel, manual pull station, K Class fire extinguisher and suppression system cabinet.
- A fixed Temperature switch for 78 degrees F, shall be installed.

Specification Book Shall Contain the Following

- A minimum of one (1) set of specifications shall be provided that include the following:
  - Scope of Work Statement
  - Equipment List
  - Equipment specification sheet
A.7:
Above Ground Storage Tanks

These guidelines are to be followed when an aboveground storage tank is relocated, modified or otherwise installed within the Town of Little Elm. This guideline applies to the installation, storage and/or use of flammable / combustible liquids, as defined by the 2018 International Fire Code. Tanks that are not regulated by TCEQ must still comply with the following requirements.

Local Design Requirements

- The tank(s) shall be provided anchored or mounted according to IFC requirements.
- The tank(s) containing Class I, II, and IIIA liquids shall meet or exceed UL 142 standards, and the provisions of NFPA 30 and/or 30A where applicable. UL 2085 tanks are acceptable for Class IIIB liquids only. Proof of IIIB qualification is required.
- When the installation location may be subject to vehicular impact, bollards designed in accordance with IFC Section 312 may be required
- The tank must display the UL Listing placard.
- A spill container having a capacity of not less than 5 gallons shall be provided at each fill connection.
- Emergency shut-offs shall be provided
- Relief valves shall be provided.
- Appropriate labeling and signs in accordance with IFC 2012 must be provided.
  - “Smoking or Open Flames Prohibited”.
  - Emergency procedures.
  - NFPA 704 or equivalent placard specifically identifying the material therein.

Each plan shall include:
- Little Elm Fire Department Permit Application.
- Proof of application to Texas Commission on Environmental Quality for AST permit, if applicable.
- Copy of Contractors Texas Commission on Environmental Quality License, if applicable.

The following information shall be provided on plans:
- **Electronic submission is required.**
- Plans shall contain sufficient detail to enable the plan reviewer to accomplish a complete review.
- A site plan drawing of the installation location and layout, to include:
  - All buildings and structures
  - Fire lanes and fire hydrants
  - Location(s) of tanks, vent lines, product lines, and dispensing locations
  - Distances between tanks, structures, property lines
These guidelines are to be followed when an underground storage tank is relocated, modified or otherwise installed within the Town of Little Elm. This guideline applies to the installation, storage and/or use of flammable / combustible liquids, as defined by the 2018 International Fire Code.

Local Design Requirements

- An approved method of secondary containment shall be provided for underground tank systems, including tanks, piping, and related components
- The tank(s) shall meet, or exceed UL 142, and the provisions of NFPA 30 and/or 30A where applicable
- When the installation location may be subject to vehicular impact, bollards designed in accordance with IFC Section 312; or a UL 2085 tank may be required, based upon a review of the hazards and protection provided.
- The tank must display the UL Listing placard.
- Emergency shut-offs shall be provided
- Tanks may not be located beneath the fire lane and fuel transfer may not take place in the fire lane
- Approved sampling tubes of a minimum of 6-inches in diameter shall be installed in the backfill material
  - The tubes shall extend from a point 12-inches below the average grade of the excavation to the ground level and shall be provided with suitable access caps
- Each tank site shall have sampling sumps at the corners of the excavation with a minimum of 4 sumps.
  - Sampling tubes shall be placed in the product line excavation within 10-feet of the tank excavation and one every 50-feet routed along product lines toward the dispenser; a minimum of two are required
- Appropriate labeling and signs in accordance with IFC 2012 must be provided.
  - “Smoking or Open Flames Prohibited”.
  - Emergency procedures.
  - NFPA 704 or equivalent placard specifically identifying the material therein.

Each plan shall include:

- Little Elm Fire Department Permit Application.
- Proof of application to Texas Commission on Environmental Quality for UST permit, if applicable.
- Copy of Contractors Texas Commission on Environmental Quality License, if applicable.

The following information shall be provided on plans:

- **Electronic submission is required.**
- Plans shall contain sufficient detail to enable the plan reviewer to accomplish a complete review.
A.8:
Underground Fuel Storage Tanks

- A site plan drawing of the installation location and layout, to include:
  - All buildings and structures
  - Fire lanes and fire hydrants
  - Location(s) of tanks, vent lines, product lines, and dispensing locations
  - Distances between tanks, structures, property lines
  - Distances to Emergency cut-off switches
    - If installation is for a motor fuel dispensing facility utilizing hose dispensers, the measurement shall be made from the emergency switch to the distance of the outstretched dispensing hose.

The Specification Book shall contain a minimum of the following:

- A minimum of one (1) set of specifications shall be provided that include the following:
  - Scope of Work Statement
  - Equipment List
  - Manufacturer’s specification sheets for all components
These guidelines are to be followed when a building or facility within the Town of Little Elm is provided with an approved, access control door or delayed egress system for building occupants and pedestrian traffic. This guideline includes the use of electric strikes, magnetic locks and/or any device(s) intending to impede or restrict egress from a building.

All access control criteria for the purposes of these guidelines and any other guidelines or requirements of the Fire Department shall conform to the 2018 International Fire Code, as adopted and amended by the Town of Little Elm.

Local Design Requirements:

- A sensor is provided on the egress side arranged to detect an occupant approaching the doors and the doors are arranged to unlock upon detection of approaching occupant or loss of power to the sensor
- Loss of power to that part of the access control system that locks the doors shall automatically unlock the doors
- The doors are arranged to unlock from a manual release device located 40- to 48-inches vertically above the floor and within 5-feet of the secured doors
- The manual release shall be readily accessible and clearly identified by a sign that reads “PUSH TO EXIT”. A touch sensor panic hardware device may be used in lieu of the manual release button
- When operated, the manual release device shall result in direct interruption of power to the lock, independent of the access control system electronics, and the doors shall remain unlocked for at least 30 seconds
- Activation of the building fire sprinkler or fire detection system, if provided, automatically unlocks the doors and the doors remain unlocked until the fire protective signaling system has been manually reset
- A 4400 Knox® Box shall be provided on all buildings having a Magnetic Access Control System and shall be provided with a Knox® toggle switch that when activated will disconnect the entire building access control system

Each plan shall include:

- **Electronic submission is required.**
- Plans shall contain sufficient detail to enable the plan reviewer to accomplish a complete review.
- Each submittal shall have a completed Little Elm Fire Department Permit Application.
- Full floor plan for the facility indicating the occupancy type, occupancy load, use of each area, and locations of access control devices
A.9: Access Control / Delayed Egress

- Provide a written description of the operation of the Access-Control/Delayed Egress System in normal mode, loss of power mode, activation of a fire protection system and manual modes.
- Manufacturer documentation/spec sheets for all devices, parts, and materials
A.10: Automatic Access Gates (Vehicle)

Emergency vehicle access onto properties that are equipped with automatic security gates or vehicle access/egress gates installed across required fire lanes shall follow these guidelines. Each gate requires a separate permit.

**GENERAL NOTES**

- A *separate* fire permit is required for each automatic gate. (An approved site plan is **not** a permit.)
- Gate motor shall be the type that the drive gear disengages on power failure.
- The City approved Knox® key switch (KS2) shall be used for 24-hour Fire Department access. The emergency key switch, when activated, shall by-pass any occupant control and loop systems. When activated, the gate will remain in the open position until de-activated by the Fire Department.
- Only when deactivated will the gate resume normal operation
- The key switch shall open both the entrance and exit gates when gates are in close proximity to each other.
- The Knox® key switch shall be mounted 5½ feet above grade (location shown on plan).
- The key switch shall be located below a sign labeled “FD ACCESS”. *See Fire Department Sign Specifications*
- The minimum clear opening width shall not be less than the width of the required fire lane or access drive. The gate and/or its components shall not encroach on the minimum fire lane width (24-feet or 26-feet) and the minimum unobstructed height of 14 feet shall be maintained.
- Gate operator(s) shall open at a rate of one foot per second. Parking barrier arms will open or clear in approximately two seconds.
- The primary drive gate type that may be installed across fire lanes shall be the sliding type.
- In the event of power failure the gate shall open freely. It shall be capable of being opened manually by one person of average stature.

**Primary or Main Gate**

- Primary gate is defined as the drive or access point(s) designed as a primary point of ingress/egress for emergency vehicles.
- Gate signage shall comply with *Fire Department Sign Specifications*
- The following access systems shall be installed on all Primary Gates:
  - “Opticom” receiver switches
  - KS2 Knox® Switches
A.10: Automatic Access Gates (Vehicle)

- Electrical Disconnect
- Red Emergency Activation LED light

**Automatic Secondary Gates (including Main Gates to Storage Facilities)**

- Shall mean the drive or access point designed as a secondary or back-up means of ingress/egress for emergency vehicles.

- The following access systems shall be installed on all Secondary Gates:
  - KS2 Knox® Switches
  - Electrical Disconnect
  - Red Emergency Activation LED Light
  - “Exit Only Sign” (see illustrations below, must meet Fire Department Sign Specifications)

**SYSTEM ACCESS COMPONENTS**

**Opticom Receiver**

- Shall be mounted 8 to 10 feet from grade.
- Shall be located behind the access gate (property side).
- Shall be mounted on a 4”x 4” metal post, not on guidepost, and shall be cemented 18” below grade.
- Detectors shall activate 150-feet from gate.
- Each gate shall have two individual detectors or an approved Tomar dual strobe switch
- Detectors shall point toward the **APPROACH** and **EXIT** path of the emergency vehicle.
- Detectors’ sight path shall be free of visual obstructions such as signs, covered parking canopies, and vegetation.
- Individual detectors shall be mounted together with the power module in a dual detector mounting box, or with an approved Tomar dual strobeswitch. *Three head detector shall be used for 90 degree turning layouts.*

**KS-2 Knox® Switch**

- Knox® key switches shall be provided as a manual backup.
- The entrance Knox® switch shall be located above the property’s keypad, 5 ½ feet from grade.
A.10: Automatic Access Gates (Vehicle)

- Upon activation of the KS-2 switch, the affected gate shall automatically open to a locked open and disabled condition. The system will require manual reset to close the gates after emergency activation.
- A sign identifying “FD ACCESS” shall be mounted above the KS2 Switch. See Fire Department Sign Specification Guide.

Red Emergency Activation Strobe

- All automated gates must also be equipped with one flasher unit and one external lamp assembly with a red globe and guard to be mounted separate from the enclosure.
- The light shall be visible from both sides of the gate; be mounted at the top of the fence within two (2) feet of the gate opening and flash upon the gate being activated by the Opticom system or KS-2 switch.
- The strobe shall continue to flash as long as the gate is being held by the emergency access system.

Numbered Keypad

- Public safety access shall be installed at a readily accessible location at each automated drive gate for public safety personnel who may require entry in other emergencies.
- The numbers making up the code shall be determined by the Fire Marshal and shall be consistent on all gate systems installed throughout the City. The numbers shall not be changed unless ordered by a written, notarized directive from the Fire Marshal.

Electrical Disconnect

- The gate shall be opened by means of an electrical power disconnect switch in a weather proof box:
  - The box shall be red.
  - The box shall be mounted on the entry side of the gate within five (5) feet of the gate.
  - The box shall be at least five (5) inches high and five (5) inches wide.
  - The box shall be clearly labeled “Fire Dept.” in white letters one inch tall with one-quarter inch stroke.
  - A Knox® padlock shall secure the box.
  - The box must be clearly visible and accessible.
A.10:
Automatic Access Gates (Vehicle)

Electrical Equipment Protection

- All electrical equipment shall be protected from physical damage and weather by approved weather tight boxes or housings.

Performance Test

- Gates and gate systems shall be tested by the Fire Marshal’s Office upon completion of the installation.
- All Fire Department Signage must be in place prior to acceptance testing
- Gates shall not be placed into operation until after acceptance test is approved.

EACH PLAN SUBMISSION SHALL INCLUDE:

- Little Elm Fire Department Permit Application
- Site plan indicating the locations of all vehicle access gates
- Type of gate to be used and a list or diagram of components should be indicated at each location
- Scope of Work
- Manufacturer’s Specification sheets

NOTE: All signs must meet specifications as outlined in the Fire Department Sign Specifications

Figure 1: Property side of gate
Figure 2: Entrance diagram
Figure 3: Exit Only sign diagram with FD Access
Figure 4: Exit Only sign diagram with directional arrow to Main Gate
A.10: Automatic Access Gates (Vehicle)
A.10: Automatic Access Gates (Vehicle)

Figure 1 - Property Side of Gate

Figure 2 - Entrance
A.10: Automatic Access Gates (Vehicle)

Figure 3 – Exit Only Gates
Figure 3 - Exit Gate Sign (main gate on different street or distant location)
A.11: Manual and Pedestrian Gates

These guidelines are to be followed when manual and/or pedestrian gates exist on the property. Locations where these types of gates would be used are in fences around daycares and schools, HOA pool access, and multi-family housing with controlled access gates.

GENERAL NOTES

- A separate Fire permit is required for each manual gate. (An approved site plan is not a permit.)
- All manual gates shall use a Knox® padlock as a locking mechanism.
- An approved dual padlock locking bar and Fire Department padlock shall be used.
- Six-inch wide red striping shall be painted on the ground along the length of both sides of the gate. (not applicable for Temporary Gates)
- Fire Department approved “No Parking” signs, (4) total, (2) shall be bolted back to back on each side of gate(s).
- A sign that identifies the location of the property’s primary entrance shall be bolted on the street side of the gate(s).
- Pedestrian gates must be a minimum of 5’feet wide
- If gating an existing drive, the current width of drive must remain as the original approved clear access width.

EACH PLAN SUBMISSION SHALL INCLUDE:

- Little Elm Fire Department Permit Application
- Site plan indicating the locations of all vehicle access gates
- Type of gate to be used and a list or diagram of components should be indicated at each location
- Scope of Work
- Manufacturer’s Specification sheets

Please see the following suggested configurations:

- Manual Security (Chain Linked Gates) ............ Figure 1
- Manual Knox® Locking Gate ............................. Figure 2
- Pedestrian Gates with Magnetic Locking Devices .... Figure 3
- Pedestrian Gates ........................................ Figure 4
- Knox® Locking Rolling Gate............................. Figure 5
- Temporary Construction Security Gate ............... Figure 6
A.11:
Manual and Pedestrian Gates

Manual Security (Chain Linked Gates) ............................ Figure 1
A.11:
Manual and Pedestrian Gates

Manual Knox® Locking Gate .................................................. Figure 2
A.11: Manual and Pedestrian Gates

BARRIERS FOR SWIMMING POOLS
SPAS & HOT TUBS

ELEVATION DETAIL
GATE BARRIER

NOTES:

1. KNOX KEY SWITCH ACCESSIBLE FROM BOTH SIDES OF GATE
2. KNOX SWITCH CAN BE PURCHASED AT PFD - FIRE PREVENTION,
   150 SOUTH 12TH ST., HRS. 8AM - 4:30PM
3. THE MINIMUM OVERALL WIDTH OF THE GATE OPENING SHALL BE 4 FT.
4. THE VERTICAL CLEARANCE MINIMUM OF 2" AND A MAXIMUM OF 4"
   REFERENCE BUILDING CODE REQUIREMENTS.

Pedestrian Gates with Magnetic Locking Devices ............ Figure 3
A.11: Manual and Pedestrian Gates

Pedestrian Gates ................................................................. Figure 4
A.11: Manual and Pedestrian Gates

NOTES:
1. APPROVED SIGN, WITH REFLECTIVE BACKGROUND, TO IDENTIFY THE NAME OF THE APARTMENT BUILDING AND THE LOCATION OF THE ACCESS ENTRANCE. (SEE UFC Figure 8-15c).
2. PROPERTY OWNERS/MANAGEMENT PADLOCK.
3. FIRE DEPT. PADLOCK SHALL BE ACCESSIBLE FROM BOTH SIDES OF GATE (ENTRANCE & EXIT). PADLOCK CAN BE PURCHASED AT FIRE DEPARTMENT FIRE PREVENTION DIVISION BA IN 1-858-4819 PM.
4. APPROVED FIRE LANE SIGNS WITH REFLECTIVE BACKGROUND, PLACED BACK TO BACK AND FASTENED TO ALL 4 CORNERS (SEE UFC FIGURE 8-14).
5. 8' PARKING LOT STRIPING AT THE LOCATION SHOWN ON CONCRETE CURB AND APPLIED TO ASPHALT (SEE DETAIL 8-26).
7. MILD STEEL L-BRACKET TO GATE FRAME, FASTEN AT ALL EDGES (TYPICAL 4 PLACES). irreversible.
8. LOCKING BAR LENGTH IS DETERMINED BY THE FRAME WIDTH AND THE GAP WIDTH BETWEEN THE 2 GATES. REMOVE ALL SHARP EDGES & ROUND ALL CORNERS.
9. APPROVED FIRE DEPT. ACCESS SIGN WITH REFLECTIVE BACKGROUND PLACED BACK TO BACK. (SEE UFC FIGURE 8-15c).

Requires Permit
A.11:  
Manual and Pedestrian Gates

Temporary Construction Security Gate .......................... Figure 6
APPENDICES

B. FD FORMS

1. FD Permit Application
2. FD Inspection Request
3. Building CO
Fire Permit Application Form

All information must be provided or application will be rejected. This is an application for permit only. Permit is not issued until plan approval is given by the Fire Marshal’s Office and approved plans, permit and any plan review comments are in the possession of the contractor and on the job site. Work done prior to such approval shall be subjected to a stop-work order and fines.

Building Permit Number (MyGov id#): ____________________________ Submittal Date: ______________________

Project Name: ________________________________________________ Type: ________________________________

Project Address: ______________________________________________ Suite: _____________________________

Submitting Contractor: __________________________________________

Contact: ______________________________________________________ Phone Number: _______________________

Fire Sprinkler and Alarm Systems Related:

- [ ] Fire Sprinkler System (Commercial) $75.00
- [ ] Fire Sprinkler System (Single Family) $75.00
- [ ] Fire Alarm System $75.00
- [ ] Fire Alarm System (Water Flow Monitoring) $75.00
- [ ] Fire Pump $75.00
- [ ] Stand Pipe System $75.00
- [ ] Remote FDC # of Lines ______ $75.00 per line
- [ ] Underground Fire Main # of Mains ______ $75.00 per main

Square Footage (Fire Sprinkler and Fire Alarm Systems): ________________

Other Permits:

- [ ] Hood System # of systems ______ $75.00 per system
- [ ] Access Control System $75.00
- [ ] Hazardous Materials $175.00
- [ ] Spray Booth $75.00 per Booth
- [ ] Fire Lane Modification / Alterations $75.00
- [ ] Fire Lane Traffic Control Device 75.00
- [ ] Gate Access System # of gates $75.00 per gate
- [ ] Flammable / Combustible Liquid Storage Tanks ______ # of tanks $250.00 for first tank $75.00 for each additional tank
- [ ] LPG or Compressed Gases $75.00
- [ ] Battery Systems $75.00

- [ ] Paper Submittal: $50.00

TOTAL FEE: __________________

- CAD Submittals required. See Electronic Plan Review Guidelines
- Specification book and fire alarm or sprinkler hydraulic calculations will be required.
- Permit fees shall be paid in full prior to scheduling inspections for this permit. See Contractor Guide: Inspection Procedures.
- Contact person will be notified upon completion of plan review.
- Work on any job, requiring a permit, prior to the issuance of a permit will result in a stop-work order and fine that must be paid prior to the releasing of a permit, or prior to any inspections being performed.

100 West Eldorado
Little Elm, Texas 75068-5060

5/12/2008
Pre-Test & Inspection Request Form

A pre-test of any system regulated by the Fire Department and that requires acceptance testing or inspection shall be performed without failure. Once the pre-test has been performed by the contractor, this certification form shall be submitted to the Little Elm Fire Marshal, in person, via fax (214)-975-0776 or emailed to fmo@littleelm.org as the request to schedule the inspections for the regulated system. Note: The Fire Department does not perform partial inspections. Inspections shall be scheduled at least 48 hours in advance.

Form must be filled out completely.

Inspection shall be scheduled only after receipt of this document and must be scheduled 48 hours in advanced. All permit fees shall be paid in full prior to scheduling any inspections.

PERMIT NUMBER (MyGov ID#) ______________________________________

Project Name: ____________________________________________________

Inspection Address: __________________________________________________

<table>
<thead>
<tr>
<th>Type of Test:</th>
<th>□ Sprinkler Visual</th>
<th>□ Sprinkler Hydro</th>
<th>□ Fire Alarm</th>
<th>□ Underground Fire Main</th>
<th>□ FDC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Access Control</td>
<td>□ Flammable Liquid Storage Tank</td>
<td>□ Hood Suppression System</td>
<td>□ Gate Access</td>
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<tr>
<td></td>
<td>□ Other: ________________________________</td>
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</tr>
</tbody>
</table>

Pre-Test Date: ________________________________

Contractor Company Name: __________________________________________________

Contractor Contact Person to Schedule Inspection: ________________________________

Contractor Contact Number: ________________________________

NOTE: REGULATED SYSTEMS INSPECTIONS CAN ONLY BE SCHEDULED BY THE PERMITTING COMPANY.

By signing this, I attest that a pre-test has been performed at the above location for the above named system type and found no failures to the functioning of the system. I also attest that the system will be ready to test at the time scheduled. I am aware that any failures to the system or not being ready to test or inspect at the time scheduled with the Fire Department will result in a test/inspection failure and a new pre-test shall be performed and a new inspection scheduled after appropriate re-inspection fees are paid.

Contractor Signature: ________________________________ Date: ____________________
In order to receive an inspection for a Certificate of Occupancy for any type of project, this form must be completed and FAXED, DELIVERED or EMAIL to the Little Elm Fire Department. Contact information is found below. All Information is required.

Please provide the following information:

| Address (incl. Suite Number): | | |
|-------------------------------|-------------------------------|
| Name of Business:             | Business Phone:               |
| Type of Business:             | Occupancy Load (per Building Dept): |
| Business OWNER Name:          | Owner Home/Cell Phone:        |
| Owner Address:                | Manager Email:                |
| MANAGER Name:                 | Manager Home/Cell Phone:      |
| Manager Address               | Manager Email:                |
| Additional Emergency Contact Name: | EM Contact Home/Cell Phone: |
| EM Contact Address            | EM Contact Email:             |
| Property Owner (Landlord) Name: | Prop Owner Phone:            |
| Property Owner (Landlord) Address: | Prop Owner Email: |
| Who to contact for inspection: | Phone:                       |

Please check the following items as applicable, indicating these items have been completed.

- Fire Lanes are marked per Town Ordinance.
- Fire Hydrants face fire lanes and are painted to Town standards.
- Fire Alarm System (where applicable) has been tested and accepted by the Fire Marshal’s Office. No outstanding issues remain.
- Fire Sprinkler / Suppression System(s) has been tested and accepted by the Fire Marshal’s Office. No outstanding issues remain.
- Fire Department Connections (FDC) must be unobstructed, including vegetation, parking spaces, etc.. Riser pipe to FDC must be painted red in color. Approved caps must be in place.
- Exiting systems are clear and unobstructed. Proper hardware is installed on all exit doors, per code. Dead Bolts, slide bolts, bars or other similar type of securing devices are not allowed on secondary exit doors. Exit signs and emergency lights have battery back-up and function properly.
- Premise address must be permanently affixed to the building, front and rear. Suite numbers must be placed over the main entrance and rear doors. Address placement and size /stroke requirements are available in the LEFMO Contractor Guide. Utility meters (gas/electric) must have the address/suite number of the supplied occupant affixed.
- All fire extinguishers (including newly purchased) must be inspected and display a Texas State Fire Marshal’s Office Certified Extinguisher Companies Inspection Tag. Extinguishers must be mounted per NFPA 10.
- A “Knox Box Key Safe” is required to be installed on all buildings. Size and location to be determined by the Fire Marshal’s Office and the LEFMO Contractor Guide.
- All buildings shall comply with the LEFMO Sign Policy for identification of Fire Department equipment and hazards.
- Assembly occupancies must have a Maximum Occupancy Load Sign prominently displayed.

The provisions contained herein are general in nature and may not address all situations. For further information please consult the LEFMO locally adopted codes and contractor guide or contact the Fire Marshal’s Office.

By signing this I have read and understand the Fire Marshal’s Office Policy on “Releasing of Certificate of Occupancies”. I also attest that all requirements to obtain a Certificate of Occupancy from the Fire Marshal’s Office have been completed.

_________________________________________  ___________________
Signature  Date

100 West Eldorado  FMO@littleelm.org  214-975-0417
Little Elm, Texas 75068-5060  214-975-0776 (Fax)  4/2013
APPENDICES

C. 2012 LOCAL AMENDMENTS

WebLink:
https://www.municode.com/library/tx/little_elm/codes/code_of_ordinances?nodeId=PTIICOOR_CH50FIPR
Sec. 50-108 International Fire Code amendments:
The following noted portions of the International Fire Gas Code are hereby amended to read as follows.

Section 101.1; change to read as follows:

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

Section 102.4; change to read as follows:

102.4 Application of other codes. The design and construction of new structures shall comply with the International Building Code, this code, and other codes as applicable, and any alterations, additions, changes in use or changes in structures required by this code, which are within the scope of the International Building Code, this code, and other codes as applicable, shall be made in accordance therewith.

Section 102.7; changed to read as follows:

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those listed in Chapter 80, and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

102.7.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.7.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code and any adopted amendments, the provisions of this code and any adopted amendments, as applicable, shall take precedence over the provisions in the referenced code or standard.

Section 103.1, 103.2, and 103.3; change to read as follows:

103.1 General. The Fire Code shall be enforced by the Division of Fire Prevention. The Division of Fire Prevention is hereby established as a division of the Fire Department of the Town of Little Elm, Texas and shall operate under the supervision of the Chief of the Fire Department.

103.2 Appointment. The Fire Marshal is in charge of the Division of Fire Prevention and shall be appointed by the Chief of the Fire Department on the basis of proper qualifications.

103.3 Deputies. The Chief of the Fire Department may detail such members of the Fire Department of proper qualification as inspectors as shall from time to time be necessary and each member so assigned shall be authorized to enforce the provisions of this code.

Section 104.12; add section to read as follows:

104.12 Fire Marshal’s Office Procedures and Specification Guide. References to the Little Elm Fire Department’s Fire Marshal’s Office Procedures and Specification Guide (aka “Contractor’s Guide” or “the Guide”) will be made throughout this code and serves as a quick reference guide to assist developers and contractors in facilitating their responsibilities as they relate to the fire code. Any conflict between the guide, local amendments, and/or the International Fire Code shall be resolved at the discretion of the fire code official.
Section 105.2.3; add a second paragraph to read as follows:

Reinstatement of expired permits will require the applicant to resubmit application and required documents, and shall be liable for applicable permit fees.

Section 105.4.6; change to read as follows:

105.4.6 Retention of construction documents. One set of construction documents (printed or digital) shall be retained by the fire code official for a period of not less than 180 days from the date of the completion of the permitted work, or as required by state or local laws. One set of approved construction documents shall be returned to the applicant and said set, along with the fire department permit, and plan review comments, if any, shall be kept on the site of the building or work from the date issued and until the completion of the permits associated inspections and the Fire Department’s Final Certificate of Occupancy Inspection, where applicable.

Section 105.6.27; change to read as follows:

105.6.27 LP-Gas. An operational permit is required for:

1. Storage and use of LP-Gas.
   Exception: a permit is not required for individual containers with a 20-gallon (75.7 L) water capacity or less serving occupancies in Group R-3.
2. Operation of cargo tankers that transport LP-Gas.

Section 105.7; changed to read as follows:

105.7 Required construction permits. The fire code official is authorized to issue construction permits for work set forth in Sections 105.7.1 to 105.7.20

Section 105.7; add sections 105.7.17, 105.7.18, 105.7.19, and 105.7.20 to read as follows:

105.7.17 Smoke control or exhaust systems. Construction permits are required for smoke control or exhaust systems as specified in Section 909 and Section 910 respectively. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.18 Electronic access control systems. Construction permits are required for the installation or modification of an electronic access control system, as specified in Section 503 and Section 1008. 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.

105.7.19 Gates and Barricades. Construction permits are required for the installation or modification of an electronic or manual control system specified in section 503.5 and 503.6. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.20 Fire Lanes and traffic calming devices. Construction permits are required for the modification of any fire lane and/or for the installation or modification of any traffic calming device. Maintenance performed in accordance with this code is not considered a modification; unless such device is not in compliance with this code, and does not require a permit.

Section 106.5; added to read as follows:
106.5 Inspection of existing premises. The fire code official or designated representative shall inspect all buildings, premises, or portions thereof as often as may be necessary to ensure continued compliance with the provisions of this code.

An initial inspection and one (1) re-inspection shall be made at no charge to the responsible party. If the fire code official or designated representative(s) are required to make follow-up inspections after the initial and first re-inspection to verify correction of noted violation(s) during the previous inspections, a fee shall be charged. The occupant, lessee, or person making use of the building or premise shall pay said fee(s), as established in Section 113.2, within thirty (30) days of being billed as a condition to continue lawful occupancy of the building or premise. Continued non-compliance may result in the issuance of a citation and subject to the penalties established in Section 109.4.

Section 106.5.1; added to read as follows:

106.5.1 Habitual violations. An occupant, lessee, or person making use of a building or premise that has been cited for a violation of this code, or previous code for the same violation over multiple initial maintenance inspections shall waive right to notice of violation in Section 109.3 and may be immediately issued a citation subject to the penalties as established by Section 109.4

Section 106.2.1; add second paragraph to read as follows:

Inspection and their request shall comply with the Town of Little Elm’s Fire Marshal’s Office Inspection Procedures.

Section 109.4; changed to read as follows:

109.4 Violation penalties. Any person, firm, or corporation violating any of the provisions or terms of this Article or Code adopted herein shall be guilty of a misdemeanor and upon conviction in the Municipal Court of the Town of Little Elm, shall be subjected to a fine not to exceed two thousand and no/100 dollars ($2,000.00) for each offense, and each and every day any such violation exist be deemed to constitute a separate offense.

Section 111.4; changed to read as follows:

111.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe work condition, shall be liable to a fine of not more than two thousand and no/100 dollars ($2,000.00) for each offense, and each and every day such violation shall continue shall be deemed to constitute a separate offense.

Section 113.2; changed to read as follows:

113.2 Schedule of Fees. A fee for each permit, inspection, or re-inspection shall be paid as required, in accordance with the schedule provided in Town of Little Elm Ordinance No. 900, or future ordinance(s) amending or repealing said ordinance.

Section 113.3; add second paragraph to read as follows:
Work commencing before permit issuance shall also be known as *working without a permit* and shall include non-compliance by the permit holder of Sections 105.3.5 and 105.4.6. Fees for working without a permit are established in Town of Little Elm Ordinance No. 900, or future ordinance(s) amending or repealing said ordinance.

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

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

**ATRIUM.** An opening connecting three or more stories … {remaining text unchanged}

**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 purpose 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 purpose 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 … {remainder of text unchanged}.

**HIGH-PILED COMBUSTIBLE STORAGE.** Any building classified as a group S Occupancy or Speculative Building exceeding 5,000 sq. ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage. When a specific product cannot be identified, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

**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.

**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 a 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.
Section 307.2; change to read as follows:

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

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 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.

Section 307.2.2; add to read as follows:

307.2.2 Acceptable material. Materials acceptable to burn are trees, brush, grass, and other dry plant growth for land clearing operations where no practical alternative to burning exists and the materials being burned are only from that property.

Section 307.4; change to read as follows:

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

Exceptions: {no change}

Section 307.4.3; add exception #2 to read as follows:

307.4.3 Portable outdoor Fire Places. {text unchanged}

Exceptions: Except in one- or two-family dwellings when used on a non-combustible or limited combustible surface (i.e. concrete pad or maintained lawn).

Section 307.4.4; added to read as follows:

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

Exception: Permanent installed outdoor fireplaces constructed in accordance with the International Building Code

Section 307.4.5; added to read as follows:

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

Section 307.5; changed to read as follows:

307.5 Attendance. Open burning, trench burns, bonfires or recreational fires shall be constantly attended until the . . . {remainder of section unchanged}.

Section 308.1.4 is amended to read as follows:
308.1.4 Open-flame cooking devices. Open-flame cooking devices, charcoal grills and other similar devices used for cooking shall not be located or used on combustible balconies, decks, or within 10 feet (3048 mm) of combustible construction.

Exceptions:

1. One- and two-family dwellings, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pounds (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. {no change}

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

Exceptions:

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

Section 311.5; changed to read as follows:

311.5 Placards. The fire code official is authorized to require marking of any vacant or abandon 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.

Section 319; added and titled “Burn Ban” to read as follows:

319.1 General. In the event that a fire emergency declaration (burn ban) is issued by the County of Denton, Texas, through proclamation or Executive Order of the Denton County Commissioners Court; that ban shall become enforceable within the Town limits of Little Elm and be in effect from the date executed until such time the declaration/ban expires or is terminated.

319.2 Definition. The definition of combustible materials in the section shall include but not limited to, the use of all fireworks, discarding of cigarettes or other flammable materials, materials used in activities such as welding and any other activity that could result in fire.

319.3 Violation. The use of a combustible material or knowingly and willingly allowing the use of a combustible material on private property or in any outdoor environment by any person is prohibited while this section is in effect. A violation of this section is a separate and distinct offense of other provisions of this code.

319.4 Outdoor cooking. All outdoor cooking or open flame device while this section is in effect are prohibited.

Exceptions:

1. The cooking device is propane or natural gas and has a complete and full enclosure that is utilized at all times.
2. The cooking device is wood or charcoal and has a complete and full enclosure that is utilized, and all areas around the cooking device shall be clear of vegetation and/or combustible materials or debris for a 5’ radius.

319.5 Hot work / Welding. Where welding must be performed in the field, the following mitigating efforts will be in force while this section is in effect.

319.5.1 Open hot-work
1. All areas where welding, cutting or grinding operations are being performed will be free of vegetation and/or combustibles for at least thirty feet in all directions;
2. Winds speed must be no more than 20 miles per hour while performing welding, cutting or grinding operations outside of approved barriers or enclosures;
3. Relative humidity must be above 25%
4. Each site will have the ability to call 911 for emergency response;
5. A dedicated fire watch person will attend each welder, cutter, grinder or any activity that causes a spark;
6. A minimum of one (1) water pressure fire extinguisher or pressurized water source per fire watch person is required;
7. If an emergency exists where welding has to be performed, the Fire Marshal may issue a temporary exception to the order.
8. All persons must report the intent to perform hot work to the Town of Little Elm Fire Marshal’s Office prior to work commencing. Unreported hot work is in violation of this order.

319.5.2 Enclosed hot-work
1. All welding, cutting and grinding operations may be performed in a total welding enclosure, or “welding box”, that is sufficiently high to control sparks and includes a fire retardant cover over the top.
2. All areas where welding, cutting or grinding operations are being performed will be free of vegetation and/or combustibles for at least twenty feet in all directions;
3. Winds speed must be no more than 22 miles per hour while performing welding, cutting or grinding operations;
4. Relative humidity must be above 20%
5. Each site will have the ability to call 911 for emergency response;
6. A dedicated fire watch person will attend each welder, cutter, grinder or any activity that causes a spark;
7. A minimum of one (1) water pressure fire extinguisher or pressurized water source per fire watch person is required;
8. Where welding (above ground and sub-surface) is required in an area where there is a potential for a hazardous atmosphere, barriers will be substituted for total enclosures (e.g. “wind walls”) to prevent sparks from coming in contact with any combustible material and/or vegetation;
9. The barriers will be installed to allow ventilation of the work area and ingress and egress to the work area for personnel safety;
10. Sub-surface, or “bell hole”, welding and grinding operations within approved excavations are allowed if all other “enclosed” mitigation efforts are in compliance;
11. If an emergency exists where welding has to be performed, the Fire Marshal may issue a temporary exception to the order.
12. All persons must report the intent to perform hot work to Little Elm Fire Marshal’s Office prior to work commencing. Unreported hot work is in violation of this order.

319.6 Burn Permits. All burn permits, regardless of whether previously issued shall be suspended for the duration of the burn ban.

319.7 Penalty. Penalty for violation(s) of the section are established in Sec 109.3 of this code as adopted.

Section 401.9; add section 401.9 to read as follows:

401.9 False Alarms and Nuisance Alarms. False alarms and nuisance alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted.

Section 401.3.2; changed to read as follows:

401.3.2 Alarm activation. Upon activation of a fire alarm signal, employees or staff shall immediately notify the fire department. All occupants of that facility shall follow their fire department approved evacuation plan or immediately evacuate the facility and shall not return until authorized by fire department personnel.

Section 501.4; change to read as follows:
501.4 Timing of installation. When fire apparatus access roads or a water supply for fire protection is required to be installed for any structure or development, they shall be installed, tested and approved prior to the time of which construction has progressed beyond completion of the foundation of any structure.

Section 503.1; add paragraph to read as follows:

Fire lane measurements shall be as the hose lays, begin from the centerline of the fire lane and unobstructed by any barriers. Except for one- or two-family dwellings, the path of measurement shall be along a minimum of a ten feet (10’) wide unobstructed path around the external walls of the structure. A five-foot wide level pathway shall be provided unobstructed through all barriers. A continuous row of parking between the fire lane and the structure shall be considered a barrier.

Section 503.2; add paragraph to read as follows:

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

Section 503.1.2; add paragraph to read as follows:

All structures and subdivisions shall provide two points of access. Two points shall be a minimum of 140 feet apart. The maximum block length shall be 1000’ and the maximum cul-de-sac length shall not exceed 500’ as measured from centerline of the intersecting street to the center of the radius.

Section 503.2.1; change to read as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7,315 mm), except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4,267 mm).

When servicing a structure of greater than two stories in height, a 26 foot fire lane is required. Any such fire lane easement shall either connect both ends to a dedicated street or be provided with a turnaround having a minimum outer radius of 50 feet.

Section 503.2.1.2; add to read as follows:

503.2.1.2 Radius. All curve or turn radii must be sufficient to accommodate the turning profile of the largest first-alarm emergency apparatus provided by or available to the Little Elm Fire Department through mutual/automatic aid agreement.

This may be accomplished by use of minimum turn requirements for an AASHTO WB-50 vehicle. Twenty-foot (20’) minimum radius is preferred. Conformance must be demonstrated by including a scale illustration on the submitted site plan showing the turning of an AASHTO WB-50 vehicle within the proposed fire lanes.

Fire lane designs shall be provided during the site plan process or when appropriate if site plan approval is not required.

Section 503.2.2; change to read as follows:

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

Section 503.2.3; changed to read as follows:
Section 503.2.3 Surface. Fire Lane and fire apparatus access roads shall be constructed to meet the Town of Little Elm Engineering Standards.

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

Section 503.2.5; change to read as follows:

Section 503.2.5 Dead-ends. Dead-end fire apparatus roads are not permitted. An approved fire department turn around shall be required.

Section 503.3; change to read as follows:

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

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

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

Section 503.4; change to read as follows:

503.4 Obstruction of fire apparatus access roads. Fire apparatus roads shall not be obstructed in any manner, including the parking of vehicles, whether attended or unattended for any period of time. Persons in charge of a construction project, such as, but not limited to, a General Contractor, are responsible to ensure that fire lanes are kept clear of vehicles and other obstructions at all times and may be issued a citation for non-compliance under this section. 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. The Fire Chief and Police Chief, and their designated representatives are authorized to remove or cause to be removed any material, vehicle or object obstructing a fire lane at the expense of the owner of such material, vehicle or object.

Section 503.4.1; change to read as follows:

503.4.1 Traffic Calming Devices. Traffic calming devices shall be prohibited unless approved by the fire code official. A permit shall be required as per Section 105.7 of this code and the construction of such devices shall comply with the Fire Marshal’s Office’s Procedures and Specification Guide.

Section 503.4.2; add section to read as follows:

503.4.2 Obstruction and Control. No owner or person in charge of any premises served by a fire lane or access easement shall abandon, restrict or close any fire lane or easement without first securing a permit as required in 105.7 of this code and securing from the Town of Little Elm approval of an amended plat or other acceptable legal instrument showing the removal of the fire lane.

Section 503.6; add a paragraph to read as follows:
The installation of security gates or other devices intended to limit the access of vehicles or persons shall require a permit as established in Section 105.7 and shall comply with the Fire Marshal’s Office’s Procedures and Specification Guide.

Section 505.1; change and add Sections 505.1.1 – 505.1.5 to read as follows:

505.1 Address numbers. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall be substantially contrasting with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numerals or alphabet letters. Address numbering shall comply with Sections 505.1.1 - 505.1.5

505.1.1 Single family homes. Minimum 4” high, 5/8” stroke

505.1.2 Multifamily Communities. Street Address shall be a minimum of 12 inch high with a 2” stroke. Individual building numbers shall be a minimum of 18” high with a 3” stroke. Buildings over 100 feet in length require a minimum of two (2) numbers per building. Apartment spread numbers shall be a minimum of 7” high with a one inch stroke and corridor spread numbers shall be a minimum of 4” high with a 5/8 inch brush stroke. Individual apartment unit numbers shall be a minimum of 4” in height with a 5/8 inch stroke.

505.1.3 Large Office and Warehouse Buildings. Address must be visible from all access directions. Number shall be a minimum of 24 inches in height with a 4 inch stroke. Buildings over 500 feet long shall have two address locations if more than one access point is visible. Suite numbers shall be required for multi-tenant complexes and shall be located over the front door and on the rear door, six inches in height with a one inch brush stroke.

505.1.4 Shopping Centers, High Rise Buildings and Other Applications. A minimum of 10 inch high numbers with a 2” brush stroke shall be visible from all access directions. Suite numbers are required over the door with 4” high numbers with a 5/8 inch brush stroke. Buildings beyond 100 feet from the street and 10,000 square feet shall install 12 to 18 inch numbers as determined by the fire code official.

505.1.5 Marquee and Monument. Addresses installed on a marquee located next to the street will require numbers 8 inch high with a two inch brush stroke to be located a minimum of 3 feet above grade. Marquee and Monument signs must also comply with other Town of Little Elm Sign Ordinance Requirements.

Section 505.3; is added to read as follows:

505.3 Directional / Equipment ID Signage. Directional and equipment identification signage shall be provided by the building owner on all new and existing buildings where required by the fire code official and shall meet the requirements as set forth in the Fire Marshal’s Office’s Procedures and Specification Guide.

Section 506.1 is amended by adding a paragraph to read as follows:

All new and existing occupancies, except one- and two- family residences, shall provide (a) lock box (es) as specified in the Fire Marshal’s Office’s Procedures and Specification Guide. Existing properties that are equipped with a lockbox that is of inadequate size shall be upgraded to a size appropriate.

Section 507.1.1 is added to read as follows:

507.1.1 Water Distribution Systems. Water distribution systems shall be designed meeting the minimum criteria in sections 507.1.1.1 through 507.1.1.4 and approved by the AHJ.

507.1.1.1 Fire Protection and Hydrants. The minimum size of water mains, for providing fire protection and serving fire hydrants shall be 6 inches in diameter.
507.1.1.2 Minimum Standards for Distribution Piping. Distribution piping shall be sized to meet design flow as determined by hydraulic analysis on water system flow gradients. The minimum size in a distribution system shall be 6 inches in diameter. Larger main sizes may be necessary to achieve required fire flow and maintain residual pressure specified for both domestic consumption and fire flow. The piping sizes must meet standards specified in Table 507.1.1.2.

TABLE 507.1.1.2. Minimum Standards for Distribution Piping

<table>
<thead>
<tr>
<th>Appurtenance</th>
<th>Minimum Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallest pipe for hydrant feed(^1)</td>
<td>6 inches</td>
</tr>
<tr>
<td>Smallest pipe in distribution system</td>
<td>8 inches</td>
</tr>
<tr>
<td>Smallest branching pipes that are dead ends</td>
<td>8 inches</td>
</tr>
<tr>
<td>Smallest pipe in high value district</td>
<td>8 inches</td>
</tr>
<tr>
<td>Smallest pipe on principal streets in business,</td>
<td>12 inches</td>
</tr>
<tr>
<td>commercial, multifamily districts or complexes</td>
<td></td>
</tr>
<tr>
<td>Main supplying 3 or more hydrants(^1,2)</td>
<td>12 inches</td>
</tr>
</tbody>
</table>

\(^1\) Fire suppression system supply mains are considered as a “hydrant” for pipe sizing
\(^2\) Does not apply to residential developments

507.1.1.3 Looped System Requirements for Secondary feeders. A looped secondary feeder system shall be installed to supply all buildings with a fire flow over 1,000 gpm or in high value, commercial, business, and multifamily districts, or as determined by the AHJ.

507.1.1.4 Looped System Requirements for Distributor mains. Where a distributor main supplies 3 or more fire hydrants or fire suppression system supply mains, the distribution system shall be looped.

507.1.1.5 Valves in Distribution Systems. Valves shall be installed along water distribution lines as required by the Town of Little Elm’s Engineering Department and Fire Code Official.

Section 507.4; change to read as follows:

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

Section 507.5.1; change and add table 507.5.1 to read as follows:

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

TABLE 507.5.1

<table>
<thead>
<tr>
<th>OCCUPANCY</th>
<th>MAXIMUM DISTANCE BETWEEN HYDRANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential (1 &amp; 2 Family)</td>
<td>600 feet (Sprinklered) 500 feet (Not Sprinklered)</td>
</tr>
<tr>
<td>Residential (Multi-Family)</td>
<td>400 feet (Sprinklered) 300 feet (Not Sprinklered)</td>
</tr>
<tr>
<td>All Other</td>
<td>500 feet (Sprinklered) 300 feet (Not Sprinklered)</td>
</tr>
</tbody>
</table>
There shall be a minimum of two (2) fire hydrants serving each property within the prescribed distance listed in Table 507.5.1.

Protected Properties. Fire Hydrants shall be installed along fire lanes with spacing as required for street installations specified in 507.5.1. In addition, hydrants required to provide supplemental water supply for automatic fire protection systems shall be within 100 feet of the fire department connection (FDC) for such systems.

Section 507.5.4; changed to read as follows:

Section 507.5.4 Obstruction. Unobstructed access to fire hydrants shall be maintained at all times. Post, 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 hydrant from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment. The Fire Chief and Police Chief, and their designated representatives are authorized to remove or cause to be removed any material, vehicle or object obstructing a fire hydrant, fire department inlet connection or fire protection system control valves at the expense of the owner of such material, vehicle or object.

Section 507.5.7 through 507.5.16; add new Sections 507.5.7 through 507.5.16 to read as follows:

507.5.7 Fire Hydrant Type. All hydrants shall be of the three-way type with National Standard threads, breakaway construction, minimum 5 1/4" valve opening, and shall comply with the latest AWWA specification C-502. The hydrant shall have a 4 1/2" large connection with a 5" Hydra-Storz quick connection by Hydra-Shield and with two 2 1/2" side connections and shall be placed on water mains of no less than six inches (6") in size. Fire hydrants shall be Mueller "Centurion" or approved equal.

507.5.8 Valves. Valves shall be placed on all fire hydrants leads.

507.5.9 Breakaway point. Fire hydrants shall be installed so that the breakaway point is no less than three (3) inches, and no greater than five (5) inches above the grade surface.

507.5.10 Curb line. Fire hydrants shall be located a minimum of two (2) feet and a maximum of six (6) feet behind the curb line. No fire hydrant shall be placed in a cul-de-sac or the turning radius of fire lanes.

507.5.11 Positioning. All fire hydrants shall be installed so that the 4 1/2" connection will face the fire lane or street.

507.5.12 Limiting access obstruction. Fire hydrants, when placed at intersections or access drives to parking lots, shall be placed so that the minimum obstruction of the intersection or access drive will occur when the hydrant is in use.

507.5.13 Private property. Fire hydrants located on private property shall be accessible to the fire department at all times.

All fire hydrants placed on private property shall be adequately protected by either curb stops or concrete post or other approved methods. Such stops shall be the responsibility of the landowner on which the fire hydrant is installed.

507.5.14 Location to building. No fire hydrant shall be located closer than 40 feet to a non-residential building or structure.

507.5.15 Identification. An approved blue, two-sided reflector shall be utilized to identify each hydrant location. The reflector shall be affixed to the center line of each roadway or fire access lane opposite fire hydrants.
507.5.16 Color. Fire hydrant caps and bonnet shall be painted according Little Elm Engineering Department Standards.

Section 509.1; change to read as follows:

509.1 Identification. Fire Protection equipment shall be identified in accordance Fire Marshal’s Office’s Procedures and Specification Guide. Rooms containing control valves for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for use of the fire department. Approved signs required to identify fire protection equipment and equipment locations shall be constructed to the Fire Marshal’s Office’s Procedures and Specification Guide.

Section 603.3.2.1, Exception; change exception to read as follows:

Exception: 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. {delete remainder of Exception}

Section 603.3.2.2; change to read as follows:

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 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; change to read as follows:

SECTION 604 EMERGENCY AND STANDBY POWER SYSTEMS

604.1 Installation. Emergency and standby power systems required by this code or the International Building Code shall be installed in accordance with this code, NFPA 110 and 111. Existing installations shall be maintained in accordance with the original approval, except as specified in Chapter 11.

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 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.

604.2.1 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, in accordance with Section 907.5.2.2.5.
Covered and Open Malls, Section 604.2.13
Group A occupancies, Sections 907.2.1.1 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

604.2.2 Smoke control systems. Standby power shall be provided for smoke control systems in the following occupancies, or as specified elsewhere in this code, in accordance with Section 909.11:
Covered mall building, IBC, Section 404.5
Atriums, IBC, Section 404.7
Underground buildings, IBC, Section 405.5
Group I-3, IBC, Section 408.9 Stages, IBC, Section 410.3.7.2
Special Amusement buildings (as applicable to Group A’s), IBC, Section 411.1
Smoke protected seating, Section 1028.6.2.1

604.2.3 Exit signs. Emergency power shall be provided for exit signs in accordance with Section 1011.6.3. (90 minutes)

604.2.4 Means of egress illumination. Emergency power shall be provided for means of egress illumination in accordance with Section 1006.3. (90 minutes)

604.2.5 Accessible means of egress elevators. Standby power shall be provided for elevators that are part of an accessible means of egress in accordance with Section 1007.4.

604.2.6 Accessible means of egress platform lifts. Standby power in accordance with this section or ASME A18.1 shall be provided for platform lifts that are part of an accessible means of egress in accordance with Section 1007.5

604.2.7 Horizontal sliding doors. Standby power shall be provided for horizontal sliding doors in accordance with Section 1008.1.4.3.

604.2.8 Semiconductor fabrication facilities. Emergency power shall be provided for semiconductor fabrication facilities in accordance with Section 2703.15.

604.2.9 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 the International Building Code. (4 hours)

604.2.10 Hazardous materials. Emergency or standby power shall be provided in occupancies with hazardous materials in accordance with Section 5004.7 and 5005.1.5.

604.2.11 Highly toxic and toxic materials. Emergency power shall be provided for occupancies with highly toxic or toxic materials in accordance with Sections 6004.2.2.8 and 6004.3.4.2.

604.2.12 Organic peroxides. Standby power shall be provided for occupancies with organic peroxides in accordance with Section 6204.1.11.

604.2.13 Covered and open mall buildings. (no change).

604.2.14 High-rise buildings. (no change).

604.2.15 Underground buildings. (no change).

604.2.16 Group I-3 occupancies. (no change).

604.2.17 Airport traffic control towers. (no change).

604.2.18 Elevators. (no change).

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 504.8, 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 and 1104.5.1 when required by the fire code official. (90 minutes in I-2, 60 minutes elsewhere.)

604.3 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.

604.4 Maintenance. (no change).

604.5 Operational inspection and testing. (no change).

604.6 Emergency lighting equipment. (no change).

604.7 Supervision of maintenance and testing. (no change).

Section 704.1; change to read as follows:

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 46. New floor openings in existing buildings shall comply with the International Building Code.

Section 807.4.3; change to read as follows:

807.4.3.2 Artwork. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area and on the walls of classrooms to not more than 50 percent of each wall area. Such material 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 ceiling 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.

Section 807.4.4.2; change to read as follows:

807.4.4.2 Artwork. Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area and on the walls of classrooms to not more than 50 percent of each wall area. Such material 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 ceiling 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.
Section 901.4.3; changed to read as follows:

901.4.3 Fire areas. Separation of buildings or portion of buildings into separate fire areas shall not be used for the purpose of

Section 901.4.6; add Sections 901.4.6.1, 901.4.6.2, 901.4.6.3, 903.7.3, and 903.7.4 to read as follows:

901.4.6.1 Automatic Fire Sprinkler Control Room (Riser Rooms). Riser rooms shall be used for the purpose of fire suppression, fire alarm and control systems only. The following are prohibited equipment and/or facilities in a riser room: mop sinks, roof access, electrical equipment and all storage.

901.4.6.2 Riser Room Size. Riser rooms shall be so constructed to a size that facilitates maintenance and where fire operations can be performed. Minimum riser room size for a “shotgun” riser is 6 feet by 6 feet.

901.4.6.3 Lighting. Riser rooms shall be provided with an emergency light.

901.4.6.4 Temperature of riser room. Riser rooms shall be provided with a suitable means for maintaining the temperature above 40 degrees Fahrenheit (5 degrees Celsius).

901.4.6.5 Riser room access. All Riser rooms shall be directly and only accessible from the exterior of the structure. All new and existing riser rooms shall be identified in accordance to the Fire Marshal’s Office’s Procedures and Specification Guide

Section 901.6.1.1; Add Section 901.6.1.1 to read as follows:

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

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be 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 type of standpipe systems.

2. For any manual (wet or dry) 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 calves 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 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 Tag 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 or 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 request to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the fire code official.

Section 901.7; change to read as follows:

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

Section 901.9; change to read as follows:

901.9 Discontinuation or change of service. Notice shall be made to the fire code official whenever contracted alarm services for monitoring of any fire alarm system is terminated for any reason, or a change in alarm monitoring provider occurs. Notice shall be made in writing to the fire code official by the building owner and alarm service provider prior to the service being terminated.

Section 903.1.1; change to read as follows: [Ref. IBC 903.1.1]

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

Section 903.2; add paragraph to read as follows: [Ref. IBC 903.2]

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 door to the elevator machine room indicating “ELEVATOR MACHINERY – NO STORAGE ALLOWED.”

Section 903.2; delete the exception. [Ref. IBC 903.2, Exception]

Section 903.2.9; add section 903.2.9.3 to read as follows: [Ref. IBC 903.2.9.3]

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

A screen shall be installed at eighteen (18”) inches below the level of the sprinkler heads to restrict storage above that level. This screen shall be a mesh of not less than one (1) inch not greater than six (6") inches in size. This
screen and its supports shall be installed such that all elements are at least eighteen (18") inches below any sprinkler head.

Exception: One-story self-service storage facilities that have no interior corridors, with a one-hour fire barrier separation wall installed between every storage compartment.

Section 903.2.11; change 903.2.11.3 and add 903.2.11.7, 903.2.11.8, and 903.2.11.9 as follows: [Ref. IBC Section 903.2.11]

903.2.11.3 Buildings 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with Section 1509 of the International Building Code that is located 35 feet (16,764 mm) or more above the lowest level of fire department vehicle access.

Exceptions: # 2. Open parking structures in compliance with Section 406.5 of the International Building Code.

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

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

903.2.11.9 Buildings over 5,000 sq. ft. An automatic fire sprinkler system shall be installed throughout all buildings with a building area 5,000 sq. ft. or greater, in all existing buildings that are enlarged to be 5,000 sq. ft. or greater, and in all existing buildings that the cumulative remodel over any period of time that is equal to or greater than 5,000 sq. ft. For the purpose of this provision, fire walls shall not define separate buildings.

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

Section 903.3.1.1.1; change to read as follows: [Ref. IBC 903.3.1.1.1]

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

1. 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, machinery space, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.

Section 903.1.2.2; add section to read as follows: [Ref. IBC 903.1.2.2]

Section 903.1.2.2 Attics, Open Breezeways, and Attached Garages. Sprinkler protection is required in attic spaces of such buildings two or more stories in height, open breezeways, and attached garages.

Section 903.3.1.3; change to read as follows: [Ref. IBC 903.3.1.3]

903.3.1.3 NFPA 13 D sprinkler systems. Where allowed, automatic sprinkler systems installed in one- and two-family dwellings and townhomes shall be installed throughout in accordance with NFPA 13D or in accordance with state law.

Section 903.3.5; add a second paragraph to read as follows: [Ref. IBC 903.3.5]
Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every fire protection system shall be designed with a 10 psi safety factor.

Section 903.3.7; changed to read as follows:

903.3.7 Fire Department Connections. The location of fire department connections shall be approved by the fire code official and shall be remote from the building (outside of the collapse zone), placed adjacent to the primary fire lane access for the building served and signed in accordance with the Fire Marshal’s Office’s Procedures and Specification Guide

FDC shall be five-inch (5”) Storz connection with a 30-45 degree down elbow with chained cap. Traditional 2-way Siamese connection with caps may be used when approved by the Fire Department.

Where the FDC is serving more than 500 GPM the building shall be provided with one 5-inch Storz connection and one 2-way Siamese connection.

Section 903.4; add a second paragraph after the exceptions to read as follows: [Ref. IBC 903.4]

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 903.4.2; add a second paragraph to read as follows: [Ref. IBC 903.4.2]

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 904.11.6; add to read as follows:

904.11.6.4 Nozzle Caps. All new and existing automatic hood suppression systems shall use metal caps on nozzles that are located between the cooking surface and hood filters.

Section 905.2; change to read as follows: [Ref. IBC 905.2]

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

Section 905.3; adding Section 905.3.8 and exception to read as follows:

905.3.8 Building area. In buildings exceeding 10,000 square feet in area per story, Class I automatic wet or manual wet standpipes shall be provided 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.

Exception: Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.

Section 905.4, item 5; change to read as follows: [Ref. IBC 905.4]

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located to serve the roof or at the highest landing of a stairway with stair access to the roof provided in accordance with Section 1009.16. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

Section 905.4, Item 7; add to read as follows: [Ref. IBC 905.4]
7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200’) intervals along major corridors or as required by the code official.

**Section 905.9; add a second paragraph after the exception to read as follows: [Ref. IBC 905.9]**

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 and not more than 90 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

**Section 907.1; add Section 907.1.4 to read as follows: [Ref. IBC 907.1]**

907.1.4 Design standards. All alarm systems new or replacement shall be analog addressable unless approved by the fire code official.

Exception: Existing systems need not comply unless the total building remodel or expansion exceeds 30% of the building or cumulative building remodel or expansion exceeds 50% of the original construction of the building.

**Section 907.2.1; change to read as follows: [Ref. IBC 907.2.1]**

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 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 purpose 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.

Activation of fire alarm modification appliances shall:

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

**Section 907.2.3; change to read as follows: [Ref. IBC 907.2.3]**

907.2.3 Group E. A manual fire alarm system that activates the occupant notification system 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’ of 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.

**Section 907.2.3 is amended to change exception #1 and add exception #1.1 to read as follows: [Ref. IBC 907.2.3]**

**Exceptions:**

1. A manual fire alarm system is not required in Group E educational and day care occupancies with an occupant load of less than 30 when provided with an approved automatic sprinkler system.

   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.)
Section 907.2.13 Exception #3 is amended to read as follows: [Ref. IBC 907.2.13]

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.

Section 907.5; add Section 907.5.3 to read as follows:

907.5.3 Sound system shunt. Where a fire alarm is installed, any circuit in which a sound system is installed for the purpose of projecting voice (other than emergency voice communication systems), music, or other sound shall be provided with a shunt mechanism to disable the circuit eliminating any potential conflict of the audible notification devices of the alarm system.

Section 907.1; add section 907.1.4 to read as follows:

907.1.4 Signal Transmission. All signal transmissions from the protected facilities to the central station monitoring facility shall comply with NFPA 72 26.6.3.2.1.4; where referring to “one telephone-line” shall mean a hard-wired telephone line on a public switched telephone network (PSTN).

Section 907.2.3; add section 907.2.3.1 to read as follows:

907.2.3.1 Manual fire alarm box tamper covers. Where manual fire alarm boxes (pull stations are installed a tamper cover with a local audible alarm shall be installed.

Section 907.2.6; add section 907.2.6.4 to read as follows:

907.2.6.4 Manual fire alarm box tamper covers. Where pull stations are installed a tamper cover with a local audible alarm shall be installed.

Section 907.5.2; add Section 907.5.2.6 to read as follows: [Ref. IBC 907.5.2]

907.5.2.6 Type. Manual alarm actuating devices shall be an approved double action type.

Section 907.6.1; add Section 907.6.1.1 to read as follows: [Ref. IBC 907.6.1]

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 circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable device (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 an addressable input (monitor) module may be wired Class B, provided the distance from the addressable module to the initiating device is ten feet or less.

Section 907.6.5; add section 907.6.5.3 to read as follows: [Ref. IBC 907.6.5]

Section 907.6.5.3 Communication requirements. All alarm systems, new or replacement, shall transmit alarm, supervisory and trouble signals descriptively to the approved central station as defined by NFPA 72, with the correct device designation and location of addressable device identification. Alarms shall not be permitted to be transmitted as a General Alarm or Zone condition.

Section 907; add section 907.10 and 907.11 to read as follows:

907.10 Password protection prohibited. No fire alarm system shall be protected by a password or pin number that would hinder immediate silencing capabilities by the fire department.
907.11 Occupant reset. Once an alarm is initiated and fire department is contacted, no person shall silence or reset an alarm prior to fire department arrival.

Section 910.1; change Exception 2 to read as follows: [Ref. IBC 910.1]

2. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, only manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall be required within these areas. Automatic smoke and heat vents are prohibited.

Section 910.2; add subsection 910.2.3 with exceptions and 910.2.4 to read as follows: [Ref. IBC 910.2]

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

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

   Exception: Buildings of noncombustible construction containing only noncombustible materials.

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

   Exception: Buildings of noncombustible construction containing only noncombustible materials.

Table 910.3; Change the title of the first row of the table from “Group F-1 and S-1” to include “Group H” and read as follows: [Ref. IBC Table 910.3]

| Group H, F-1, and S-1 |

Section 910.3; replace Section 910.3.1 through 910.3.3, and add second paragraph to Section 910.3.2.2 as follows: [Ref. IBC 910.3]

910.3.1 Design. Smoke and heat vents shall be listed and labeled to indicate compliance with UL793.

910.3.2 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.

910.3.2.1 Gravity-operated drop out vents. Automatic smoke and heat vents containing heat-sensitive glazing designed to shrink and drop out of the vent opening when exposed to fire shall fully open within 5 minutes after the vent cavity is exposed to a simulated fire represented by a time-temperature gradient that reaches an air temperature of 500°F (260°C) within 5 minutes.

910.3.2.2 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°F (approximately 38°C) greater than the temperature rating of the sprinklers installed.

910.3.2.3 Non-sprinklered buildings. Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

   Exception: Gravity operated drop out vents complying with section 910.3.2.1.

910.3.3 Vent dimensions. The effective venting area shall be less than 16 square feet (15.7 m²) with no dimension less than 4 feet (1219 mm), excluding ribs or gutters having a total width of not exceeding 6 inches (152 mm).
Section 912.2; add a second paragraph to read as follows: [Ref. IBC 912.2]

Fire department connections shall be remote (outside of the collapse zone) from the building and placed adjacent to the primary fire lane access for the building served.

Section 912.2; add Section 912.2.3 to read as follows: [Ref. IBC 912.2]

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

Section 912.2.2; change to read as follows: [Ref. IBC 912.2.2]

912.2.2 Existing buildings. Existing buildings shall have the fire department connection identified by an approved sign in accordance with the Fire Marshal’s Office’s Procedures and Specification Guide.

Section 912.4; change to read as follows: [Ref. IBC 912.4]

Section 912.4 Signs. A sign shall be provided in accordance to the Fire Marshal’s Office’s Procedures and Specification Guide and shall be approved by the fire code official. The sign shall be mounted in an approved location and manner on all fire department connections serving automatic sprinklers, standpipes, or fire pump connections; or where required by the fire code official. Where the fire department connection does not serve the entire building, a sign shall be provided indicating the portion(s) of the building served.

Section 913.1; add a second paragraph and exception to read as follows: [Ref. IBC 913.1]

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. 8in. 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 pump room, or as approved by the fire code official. Access keys shall be provided in the key box as required in Section 506.1.

Section 1007.1; add Exception 4 to read as follows: [Ref. IBC 1007.1]

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 1007.

Section 1007.5; change to read as follows: [Ref. IBC 1007.5]

Section 1007.5 Platform lifts. Platform (wheelchair) lifts … required accessible route in Section 1109.8, Items 1 through 10. Standby power… {remainder unchanged}

Section 1008.1.9.4; change Exceptions 3 and 4 to read as follows: [Ref. IBC 1008.1.9.4]

3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M, or S occupancy {remainder unchanged}.

4. Where a pair of doors serves a Group A, B, F, M, or S occupancy {remainder unchanged}.

Section 1008.1.9.9; change to read as follows: [Ref. IBC 1008.1.9.9]
1008.1.9.9. Electromagnetically locked egress doors. Doors in the means of egress that are not otherwise required to have panic hardware in buildings with an occupancy in Group A, B, E, I-1, I-2, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, I-1, I-2, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meet the requirements below: {remaining text unchanged}

Section 1015.1; add Section 1015.1.2 to read as follows:

1015.1.2 All exits and exit access doorways. All exits and exit access doorways shall be designed as though they are required exits.

Section 1015; add new section 1015.7 to read as follows: [Ref. IBC 1015]

1015.7 Electrical rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

Section 1016; add new section 1016.2.2 to read as follows: [Ref. IBC 1016]

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

1. The portion of the building classified as Group F-1 or S-1 is limited to one story in height;
2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm); and
3. The building is equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1.

Section 1018.1; add exception 6 to read as follows: [Ref. IBC 1018.1]

6. In Group B office buildings, corridor walls and ceilings within single tenant spaces need not be of fire-resistive construction when the tenant space corridor is provided with system smoke detectors tied to an approved automatic fire alarm. The actuation of any detector shall activate alarms audible in all areas served by the corridor.

Section 1018.6; change to read as follows: [Ref. IBC 1018.6]

1018.6 Corridor continuity. All corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms.
{Exception unchanged}

Section 1026.6; change Exemption 4 to read as follows; [Ref. IBC 1026.6]

4. Separation from the open-ended corridors of the building… {remaining language unchanged}

Section 1029.1; change and add Exception 4 to read as follows: [Ref. IBC 1029.1]

1029.1 General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue openings in Group R and I-1 occupancies. {remainder unchanged}

Exceptions:
{1 through 3 unchanged}

4. In other than Group R-3 occupancies, buildings equipped throughout with an approved automatic sprinkler system in accordance with Sections 903.3.1.1 or 903.3.1.2.

Section 1030.2; change to read as follows:
1030.2 Reliability. Required exit accesses, exits or exit discharges shall be continuously maintained free from obstructions or impairments 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 means of egress.

Section 1103.3; add sentence to end of paragraph as follows:
Provide emergency signage as required by Section 607.2.

Section 1103.5.3; add section 1103.5.3 to read as follows:
1103.5.3 Spray booths and rooms. Existing spray booths and spray rooms shall be protected by an approved automatic fire extinguishing system in accordance with Section 2404.

Section 2304.1; change to read as follows.
2304.1 Supervision of dispensing. The dispensing of fuel at motor vehicle fuel-dispensing facilities shall be in accordance with the following:

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

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

Section 2401.2; delete this section.

Section 3204; add a paragraph to read as follows:
Any building exceeding 5,000 square feet that has a clear height in excess of 12 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage and shall comply with the provisions of this section. When a specific product cannot be identified, a fire protection system shall be installed as for Class IV commodities, to the maximum pile height.

Table 3206.2, footnote j; change text to read as follows:
Where areas of buildings are equipped with early suppression fast response (ESFR) sprinklers, manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall be required within these areas.

Section 3310.1; add sentence to end of paragraph to read as follows:
When fire apparatus access roads are required to be installed for any structure or development, they shall be approved prior to the time of which construction has progressed beyond completion of the foundation of any structure.

Chapter 50 is amended by adding Section 5006 titled “Hazardous Materials Route” to read as follows:
Section 5006 Hazardous materials route.

5006.1 General. Through vehicles carrying materials determined to be hazardous by the United States Department of Transportation are prohibited from transporting such materials over and upon public streets and thoroughfares of the Town of Little Elm except upon a designated Hazardous Materials Route.

Section 5601.1.3; change to read as follows:
5601.1.3 Fireworks. The possession, manufacture, storage, sale, handling and use of fireworks are prohibited.

Exceptions:
1. Only when approved fireworks displays, storage and handling are allowed in Section 5604 and 5608,
2. The use of fireworks for approved fireworks displays allowed in Section 5608.

Section 5601.1.3, amended by adding Section 5601.1.3.1 and Section 5601.1.3.2 to read as follows:

5601.1.3.1 Fireworks a public nuisance. The presence or use of any firework within the jurisdiction of the Town of Little Elm in violation of this ordinance is hereby declared to be a misdemeanor as well as a common and public nuisance. The Fire Chief is authorized and directed to seize and immediately cause to be safely destroyed any firework found within the jurisdiction or extraterritorial jurisdiction of the Town of Little Elm in violation of this Ordinance. Any member of the Little Elm Fire Department or any Police Officer of the Town of Little Elm is empowered to stop the transportation of and detain any fireworks found being transported illegally or to close any building where any fireworks are found stored illegally until the fireworks can be safely destroyed.

5601.1.3.2 Territorial applicability. The restrictions of this Article shall be applicable and in fore throughout the territory of the Town of Little Elm Texas and extending for a distance outside the town limits for a total of 5,000 feet; provided that this Article will not be in effect within any portion of such 5,000 feet area which is contained within the territory of any other municipal corporation.

5601.3; change to read as follows:

5601.3 Prohibited explosives. Storage of explosive material and blasting agents are prohibited within the incorporated limits of the Town of Little Elm.

Section 5703.6; add a sentence to read as follows:

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

Section 5704.2.9.5; change Section 5704.2.9.5 and add Section 5704.2.9.5.3 to read as follows:

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.

5704.2.9.5.3 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.

Section 5704.2.11.5; add a sentence to read as follows:

5704.2.11.5 Leak prevention. Leak prevention for underground tanks shall comply with Sections 5704.2.11.5.1 and 5704.2.11.5.2 through 5704.2.11.5.3. An approved method of secondary containment shall be provided for underground tank and piping systems.
**Section 5704.2.11.5.2; change to read as follows:**

5704.2.11.5.2 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 5704.2.11.5.3.

**Section 5704.2.11.5; add Section 5704.2.11.5.3 to read as follows:**

5704.2.11.5.3 Observation wells. Approved sampling tubes of a minimum 6 inches in diameter shall be installed in the backfill material of each underground flammable or combustible liquid storage tank. The tubes shall extend from a point 12 inches below the average grade of the excavation to ground level and shall be provided with suitable surface access caps. Each tank site shall provide a sampling tube at the corners of the excavation with a minimum of 4 tubes. Sampling tubes shall be placed in the product line excavation within 10 feet of the tank excavation and one every 50 feet routed along product lines towards the dispensers, a minimum of two are required.

**Section 5706.5.4; delete Section 5706.5.4.5 and replace with the following:**

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

5706.5.4.5.1 Site requirements.
1. Dispensing may occur at sites that have been permitted to conduct mobile fueling.
2. A detailed site plan shall be submitted with each application for a permit. The site plan must indicate: a. all buildings, structures, and appurtenances on site and their use or function; b. all uses adjacent to the property lines of the site; c. the locations of all storm drain openings, adjacent waterways or wetlands; d. information regarding slope, natural drainage, curbing, impounding and how a spill will be retained upon the site property; and, e. The scale of the site plan.
3. The Code Official is authorized to impose limits upon: the times and/or days during which mobile fueling operations are allowed to take place and specific locations on a site where fueling is permitted.
4. Mobile fueling operations shall be conducted in areas not generally accessible to the public.
5. Mobile fueling shall not take place within 15 feet (4.572 m) of buildings, property lines, or combustible storage.

5706.5.4.5.2 Refueling Operator Requirements.
1. The owner of a mobile fueling operations shall provide to the jurisdiction a written response plan which demonstrates readiness to respond to a fuel spill, carry out appropriate mitigation measures, and to indicate its process to properly dispose of contaminated materials when circumstances require.
2. The tank vehicle shall comply with the requirements of NFPA 385 and Local, State and Federal requirements. The tank vehicle's specific functions shall include that of supplying fuel to motor vehicle fuel tanks. The vehicle and all its equipment shall be maintained in good repair.
3. Signs prohibiting smoking or open flames within 25 feet (7.62 m) of the tank vehicle or the point of fueling shall be prominently posted on 3 sides of the vehicle including the back and both sides.
4. A fire extinguisher with a minimum rating of 40:BC shall be provided on the vehicle with signage clearly indicating its location.
5. The dispensing nozzles and hoses shall be of an approved and listed type.
6. The dispensing hose shall not be extended from the reel more than 100 feet (30.48m) in length.
7. Absorbent materials, non-water absorbent pads, a 10 foot (3.048 m) long containment boom, an approved container with lid, and a non-metallic shovel shall be provided to mitigate a minimum 5-gallon fuel spill.

8. Tanker vehicles shall be equipped with a fuel limit switch such as a count-back switch, limiting the amount of a single fueling operation to a maximum of 500 gallons (1893 L) between resetting of the limit switch. Exception: Tankers utilizing remote emergency shut-off device capability where the operator constantly carries the shut-off device which, when activated, immediately causes flow of fuel from the tanker to cease.

9. Persons responsible for dispensing operations shall be trained in the appropriate mitigating actions in the event of a fire, leak, or spill. Training records shall be maintained by the dispensing company and shall be made available to the fire code official upon request.

10. Operators of tank vehicles used for mobile fueling operations shall have in their possession at all times an emergency communications device to notify the proper authorities in the event of an emergency.

5706.5.4.5.3 Operational Requirements.

1. The tank vehicle dispensing equipment shall be constantly attended and operated only by designated personnel who are trained to handle and dispense motor fuels.

2. Prior to beginning dispensing operations, precautions shall be taken to assure ignition sources are not present.

3. The engines of vehicles being fueled shall be shut off during dispensing operations.

4. Night time fueling operations shall only take place in adequately lighted areas.

5. The tank vehicle shall be positioned with respect to vehicles being fueled so as to preclude traffic from driving over the delivery hose and between the tank vehicle and the motor vehicle being fueled.

6. During fueling operations, tank vehicle brakes shall be set, chock blocks shall be in place and warning lights shall be in operation.

7. Motor vehicle fuel tanks shall not be topped off.

8. The dispensing hose shall be properly placed on an approved reel or in an approved compartment prior to moving the tank vehicle.

9. The Code Official and other appropriate authorities shall be notified when a reportable spill or unauthorized discharge occurs.

Section 6103.2.1; add Section 6103.2.1.8 to read as follows:

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

Section 6104.2, Exception; add an exception 2 to read as follows:

Exceptions:
1. {existing text unchanged}
2. Except as permitted in 308 and 6104.3.2, LP-gas containers are not permitted in residential areas.

Section 6104.3; add Section 6104.3.2 to read as follows:
6104.3.2 Spas, Pool Heaters and other listed devices. Where natural gas service is not available and where approved by the fire code official, 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 can be off loaded wholly on the property where the tank is located may install 500 gallon above ground or 1,000 gallon underground approved containers.