

**MCKINNEY FIRE DEPARTMENT  
FIRE MARSHAL'S OFFICE**

# FIRE ALARM SYSTEMS

These submittal requirements are to be followed when a business, facility or organization proposes to install or modify a fire alarm system, within the City of McKinney.

To expedite the plan review and inspection processes, please refer to the information listed below.

## **SUBMITTAL REQUIREMENTS**

- 1) A "Wet" APS signature and stamp, as required by Article 5-43.2, Section 34.619, or signed and sealed by a registered Fire Protection Engineer (PE), is required on all plan drawings and calculations.
- 2) Plans shall be designed and will be reviewed based on the requirements in the International Fire Code, 2015 Edition and NFPA 72, 2016 Edition or most recent edition, and shall be indicated on the plan drawings as the code and standard or record.
- 3) Plans shall be clear, legible and in a common and appropriate scale.
- 4) Indicate all walls and rooms. Ceiling tiles shall not be shown unless needed for clarity.
- 5) Scope of Work.
- 6) Sequence of Operations.
- 7) Equipment List.
- 8) A minimum of three (3) sets of plans shall be submitted. Plans shall contain sufficient detail to enable the plan reviewer to accomplish a complete review. The following information shall be provided on the plans;
  - a) North arrow.
  - b) Floor plan.
  - c) Building Permit number.
  - d) Project name.
  - e) Project address.
  - f) Device location.
  - g) Site map inset.
  - h) Type of device.
  - i) Provide a "point-to-point" wiring configuration.
  - j) Fire alarm control panel.
  - k) Annunciators.
  - l) Square footage.
  - m) Location of doors.
  - n) Intended use of each room.
  - o) Location of all air handling units.
  - p) Show location of all fire sprinkler risers, flow switches, tamper switches and fire pumps (if equipped).
  - q) Notification devices shall indicate candela rating.
  - r) Heat detectors shall indicate temperature rating.
  - s) Indicate the length of wiring between devices.
- 9) The notification device wiring shall be shown different than the initiating device wiring. When necessary, they shall be provided on different plan drawings.
- 10) Point ID/Addressable device list. Shall indicate how the devices will report to the CSM.
- 11) Specification booklet shall contain the following;
  - a) A minimum of one (1) set of data specifications sheets for all devices and equipment.
  - b) Listing of the system design, operation and reset functions.
  - c) Specific materials are to be identified by an arrow or highlighter.
  - d) Battery discharge curves.
  - e) Wire specifications.

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- f) Type of primary power and secondary power (i.e. size and number of batteries to be provided).
- 12) Device mounting height diagrams.
- 13) Voltage drop calculations.
- 14) Battery calculations to include Standby and Alarm.
- 15) The notes shall clearly indicate that the initiating circuit wiring shall be Class A.
- 16) Identification of the type of conduit used, if any.
- 17) Identification on the gauge and type of wire used.
- 18) The use of each room is identified on the plans.
- 19) The title block shall contain the following;
  - a) Location of the installation.
  - b) Name and complete address of the business.
  - c) Name and complete address of the installing company.
  - d) Licensing information.
  - e) "Wet" signature of the APS.
  - f) Date.
  - g) Drawn by.
  - h) Authority Having Jurisdiction.
- 20) Provide a Riser diagram to include the following;
  - a) All devices as they are shown on the plans, as wired.
  - b) 120 VAC
  - c) Surge suppressor
  - d) Communications method to the CSM.
- 21) A legend shall be provided to include;
  - a) Total number and type of all devices shown on plans.
  - b) Symbol, device description, manufacturer, model number, and quantity for each device.
- 22) Device address numbers provided for addressable/analog intelligent systems.
- 23) Indicate source of primary and secondary power.

## OPERATIONAL REQUIREMENTS

1. All fire alarm systems shall comply with out Fire Alarm Operational Guidelines.

## PERMITTING REQUIREMENTS

1. Provide a written description of the operation of the fire alarm system in normal, emergency, and manual operation.
2. Plan drawings of the installation location and layout.
3. A full equipment listing.
4. Manufacturer documentation for all parts and materials used in the project.
5. Plan drawings shall be generated by the installing company, and shall not be copied.
6. Drawings shall be submitted for review and approval, PRIOR to installation.
7. Drawings shall be generated by the installing company specific to the installation. Drawings shall show plan view and other pertinent information.
8. The submittal package must include all above requirements and such requirements shall be identified in the submittal package.
9. No equipment shall be installed on the site until a Permit has been issued. Any work performed prior to the issuance of this permit may result in a citation being issued for violation of Section 113.3 of the 2012 International Fire Code.

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## GENERAL SUBMITTAL REQUIREMENTS

10. Each submittal shall have a completed McKinney Fire Department Plan Review Permit Application.
11. Plans approved by the Fire Marshal's Office give authorization for installation. 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 the responsibility of full compliance with all applicable codes and ordinances.
12. All fire department inspection forms and permits shall be kept in a permit packet on the job site until final inspection.
13. All installations shall comply with the approved plans. Any deviation from the approved plans requires a re-submittal to the Fire Marshal's Office.

All fire alarm systems for the purposes of this guideline and any other guidelines or requirements of the Fire Department shall conform to the 2015 International Fire Code, as adopted and amended by City of McKinney.

This guide does not replace, nor supersede any codes and/or ordinances adopted by the City of McKinney, or determinations and positions of the Fire Chief or Fire Marshal.