Garland Fire Marshal's Office
Fire Alarm Systems
Revised 07/20/2011

1. A copy of the annual inspection report shall be forwarded to the Fire Marshal.

2. Systems shall be installed, tested and maintained in accordance with National Fire Protection Association Standards.

3. The Fire Department shall witness all acceptance tests.

4. All new or replacement alarm systems shall be addressable.

5. Alarm systems containing 20 initiating devices shall be analog addressable fire detection systems.

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

7. In sprinkled buildings, notification shall be provided throughout the building upon water flow, with one horn strobe at riser location activating only upon water flow and one horn strobe at the front of the building.

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

9. If the system is not centrally supervised by an approved monitoring agency, a sign which states, "Local Alarm Only, Call Garland Fire Department, 911", and contains the address of the property protected by the alarm shall be located above each pull station. The sign shall have a minimum dimension of four inches. Letter height shall be a minimum of one inch high, contrasting with the background.

10. All fire alarm systems shall be installed in such a manner that the failure of any single alarm-actuating or alarm indicating device will not interfere with the normal operation of any other such devices. All alarm-actuating devices shall be class "A" wired with a minimum of six feet separation between supply and return loops. Initiating Device Circuit-Style D-Signaling Line Circuit-Style 6-Notification Appliance Circuit-Class B, Style Y.

11. The AHJ shall be consulted in every case to determine compliance with fire alarm requirements to the installation of any fire alarm system.

12. The fire alarm system contractor shall submit three sets of drawings and one submittal book required by the subsection for review.

13. The AHJ shall designate those corrections necessary for acceptance of the proposed installation design and return all but one copy that will remain on record with the Fire Department.

14. No fire alarm system shall be installed without City of Garland Fire Prevention permit number assigned to the installation plans and compliance with corrections required by the AHJ.

15. Permit and approved set of plans shall be on site during installation and acceptance test.

16. Any deviation from an approved plan must be reviewed and approved by the AHJ.

The information required in sections 11-16 and the following shall be included with all submittals:

1. Provide a separate sheet or drawing showing circuit wiring (not conduit) diagrams for both the initiation and the annunciation circuits. Multiple circuit paths on the same wire run are not acceptable. Additional drawings may be required for systems such as some control, firefighter phones, or speakers for evacuation.

2. General information
    a. Company name and state fire alarm contractor number.
    b. Alarm superintendent name and state license number.
    c. Signature of alarm superintendent, certifying that plans are in compliance with the ordinances.
    d. Property name and address.

3. Site and floor plans diagramming the layout of buildings, existing systems and alarm equipment locations. Drawings shall be scaled. Any change in the existing systems shall be approved by the Fire Marshal.

4. Supervision
    a. Monitoring supervision
    b. Trouble signal initiating circumstances

5. Submittal Book/Drawings:
    a. System design description with sequence of operations
    b. Manufacturer's Product Information sheets of all system components and devices.
    c. Schematic riser diagram including alarm receiving circuits, alarm sending circuits, control circuits, etc.
    d. Battery-size calculations with input value derivations
    e. Voltage-drop calculations with input value valuations and wire resistances
    f. Wire specifications: All wiring shall be U.L. listed power limited fire alarm wiring
    g. List of materials
    h. Addressable device list/zone legend
    i. Type of primary and secondary power

Definitions:

Addressable Fire Detection System is any system capable of providing identification of each individual alarm-initiating device. The system shall be capable of alarm verification.

Analog Intelligent Addressable Fire Detection System is any system capable of calculating a change in value by directly measurable quantities (voltages, resistance, etc.) at the sensing point. The physical analogy may be conducted at the sensing point or at the main control panel. The system shall be capable of compensating for long-term changes in sensor response while maintaining constant sensitivity. The compensation shall have a pre-set point at which a detector maintenance signal shall be transmitted to the control panel. The sensor shall remain capable of detecting and transmitting an alarm while in the maintenance mode.

Initiating Device Circuit (IDC) A circuit to which automatic or manual initiating devices are connected where the signal received does not identify the individual device operated.

Notification Appliance Circuit (NAC) A circuit or path directly connected to a notification appliance.

Signaling Line Circuit (SLC) A circuit or path between any combination of circuit interfaces, control units or transmitters over which multiple system input signals or output signals or both are carried.

This list is provided as an aid for submittals only, and is not intended to cover every code requirement.