

Fire Alarm System Plan Review  
Checklist/Requirements/Inspections  
City of Arvada

It is the responsibility of the designer/installer of record to assure that all applicable code requirements are adhered to. The 2006 edition of the International Fire Code, as amended, and with the associated National Fire Protection Association Standard 72, 2007 edition shall be the primary, but not all inclusive, resource documents.

The installation, addition, renovation, and maintenance of any fire alarm system shall comply with the following:

Contractors License:

Fire alarm system companies and installers shall be licensed with the Building Inspection Division of the City of Arvada.

Plan Review Fees:

Plan review fees are collected by the Life Safety Division. For questions on permit fees please contact the Arvada Fire Protection District at 303-424-3012, for your convenience, a Plan Review Fee Schedule is posted on our web site, [www.arvadafire.com](http://www.arvadafire.com)

Electrical Permit:

An electrical permit will need to be obtained from the Building Inspection Division of the City of Arvada for the installation of fire alarm systems.

Plan Submittal:

Three (3) sets of plans may be submitted at the Arvada Fire Protection District offices located at 7903 Allison Way, Arvada, CO 80005-5033, on the second floor. Plans may be submitted Monday through Friday 8:00 AM to 4:30 PM. Upon completion of the plans review, two (2) sets of plans will be returned with comments for your permit.

Plan Approval:

No installation work shall be performed until the submitted plans are reviewed and approved by the Life Safety Division.

Plans are reviewed in the order in which they are received. Please submit your plans as soon as possible. Fire alarm plans are normally reviewed within ten (10) business days. The Life Safety Division works ten (10) hour days, four (4) day work weeks. If work loads dictate a longer plan turnaround, the Life Safety Division will notify the designer/installer of the additional time for plans review and approval is necessary.

### **Expedited Plan Reviews:**

**The Life Safety Division does not conduct expedited plan reviews.**

### Fire Alarm System Plans:

\_\_ Submit three (3) sets of fire alarm system plans and three (3) sets of cut/sheet product information.

\_\_ Two (2) sets of stamped plans shall be returned to the designer/installer. One set of stamped plans with the notation, "THIS SET OF PLANS IS TO REMAIN AT THE JOB SITE" is required to be at the site at all times for inspections.

\_\_ A minimum level NICET III designer for fire alarm systems must stamp the plans.

\_\_ Plans need to be clear and understandable. Plans must be of the fire alarm design only. NO combination drawings using reflected ceiling plans, mechanical, etc. will be accepted.

\_\_ Drawings shall be scaled. We would request 1/8 inch equals 1 foot scale.

\_\_ Plans shall include one line and riser diagrams for all devices, notification circuits, auxiliary circuits, initiating circuits, circuit designation and central station connect.

\_\_ Fire alarm panels shall be provided on a dedicated circuit. The circuit breaker for the fire alarm panel shall be red and identified as "Fire Alarm Panel". A circuit breaker lock shall be placed on fire alarm circuit.

\_\_ All symbols utilized shall be indicated in a complete legend positioned on the plans.

\_\_ Ceiling heights must be identified on the plans.

\_\_ Ceiling construction (e.g., flat, sloped smooth, joist/beam etc.) must be identified on

the plans.

### Specification (Cut) Sheets:

### All pertinent Information Shall be Highlighted on Sheets.

Construction documents for fire alarm systems shall include, but not limited to, all of the following:

\_\_A floor plan which indicates the use of all rooms.

\_\_Location of alarm-initiating and notification appliances.

\_\_Type of Detectors to be installed.

(Smoke Detectors) Photoelectric /Ionization/ Beam/etc.

(Heat Detectors) Fixed Temperature/Rate of Rise/etc. (Listed Temperatures).

\_\_Manual Pull Stations.

\_\_Remote indicating devices.

\_\_Alarm control and trouble signaling equipment.

\_\_Annunciation.

\_\_Power connections.

\_\_Battery calculations.

\_\_Conductor type and sizes.

\_\_Voltage drop calculations.

\_\_Manufacturers, model numbers, and listing information for equipment, devices and materials.

\_\_Details of ceiling height and construction.

\_\_Interface of fire safety and control functions.

\_\_Water flow devices.

\_\_Supervisory valve monitoring.

Low air monitoring.

Pre-Action systems.

Dry Pipe Systems

Fire Pumps.

Outside horn and light type, location. Outside horn and light shall activate upon water flow only.

Fire extinguishing systems monitoring.

Clean agent systems.

Duct detection and monitoring.

Smoke control systems.

Pre-action systems.

#### **Additional Submittal Information Required:**

UL Listed Supervising Station name or Remote Station

Number of dedicated telephone lines to the monitoring station.

Radio or DSSL Lines.

Graphic Map with initiating device locations.

Measured or Estimated Ambient Sound Levels used.

#### **Identification of Devices:**

All detectors, pull stations, control valves, extinguishing systems, etc. shall be identified with the corresponding address number noted on the panel and or graphic map.

#### **Audibility Tests:**

Audibility tests shall be conducted by the installer/designer prior to final inspection and a copy of the test results shall be provided to the Life Safety Division at the time of the Final Inspection.

### Submittal of As-Built Plans:

Prior to the final inspection of the building or unit, as-built plans (if any changes from the approved plans) are required due to changes in construction.

### Inspections:

Rough wiring and location inspections will need to be conducted by the Life Safety Division and the Electrical Inspector for the City of Arvada, and any necessary corrections completed and re-inspected prior to the concealment of work.

Twenty-four (24) hours notice is required for all inspections and tests. Available days and inspection times will be noted on the approved plans.

### Requirements prior to the Final Inspection of the Fire Alarm System:

No acceptance testing shall be conducted by the Life Safety Division prior to the completion of construction within the building or units.

Final inspections are subject to field inspection.

### Record of Completion:

Three (3) copies of the Record of Completion as outlined in NFPA 72 shall be completed and be ready for signatures upon completion of acceptance tests.

### Re-Inspection Fees:

Re-inspection fees will be charged for re-inspections needed due to incomplete fire alarm systems, failure of tests, and conditions that should be corrected prior to inspection.