



# EAST GREENWICH FIRE DISTRICT

## Fire Alarm – Communications Division

### PLAN REVIEW GUIDE

Please review the following guide carefully to ensure all required material and plan details are included in your submittal. Be aware that plans are required to be submitted to both the Fire Alarm Office and Fire Marshal's Office and separate applications are required to be filled out. Plans will not be accepted without a completed application, NO EXCEPTIONS. Plans may be dropped off Monday through Friday from 8am to 3:30pm at the Administrative Office located at Fire District Headquarters, Station #1, 284 Main Street, East Greenwich RI, 02818. (401) 886-8686.

This section facilitates application for plan review. Included are the most frequently found code problems or questions and the East Greenwich Fire District Director of Fire Alarm policies and procedures for plan review and system acceptance.

A minimum of three (3) complete sets of drawings and one submittal book describing the proposed fire alarm system and devices (cut sheets) shall be submitted to the Fire Alarm Office.

#### **Minimum requirements for all submittals:**

- Completed Fire Alarm Plan Review Application including all requested information.
- Three (3) sets of complete plans on no less than 8 ½" x 11" paper.
- One CD-R disk containing a PDF version of the fire alarm plans, if available.
- Cut sheets for all devices being installed.
- Battery information and calculations.
- Description of the building, occupancy, dimensions, square footage, etc..
- **Plans must include the following components:**
  - Legend showing symbols for all devices included on the drawings
  - All system devices shown in their proposed installation location.
    - If plans are for an update to an existing system be sure to mark each fire alarm device as "New" or "Existing".
  - Title block indicating the following:
    - Project name and address
    - Project permit number
    - Contractor name, address and license number
    - Drawn by and date
    - Scale and arrow indicating north
  - At least one reference dimension for scale verification.
    - This is necessary for measuring circuit run lengths on drawings
  - Place the following applicable notes on plans to identify:
    - "Authority Having Jurisdiction"
    - "Design in accordance with applicable code" and "code date"
    - "Initiating circuit wiring shall be CLASS "A" using physical conductors installed with the outgoing and return conductors separated by a minimum of 6 feet"
    - "Duct detectors shall sound a supervisory signal alarm and not a general alarm".
    - "Primary Power to be 110-volt dedicated circuit".

- **Plans must include the following components (continued):**
  - Complete interior and exterior dimensions of the building.
  - Provide a separate sheet or drawing showing circuit-wiring (not conduit) diagrams for both the initiation and notification circuit.
    - Multiple circuit paths on the same wire run are not acceptable.
    - Additional drawings may be required for systems such as some firefighter controlled phones, or speakers for evacuation.
  - Simple site map inset showing building site in relation to relevant street(s) and indicates the main entrance.
  - Provide sequence of operations on drawings
  - System designer shall hand-sign each sheet in ink
  - Drawing size shall be no more than 36 inches high with no width restrictions
  - Plans shall be drawn to scale on clean floor plans that identify the use of each room. Electrical or other busy architectural plans are not acceptable.
  - Circuit wiring from device to device shall be drawn on the plans including end of line resistors where applicable.
  - If addressable or analog system, show device address numbers on plans.
  - If conventional system, provide zoning diagram.
  
- **Specification submittals (cut sheets) shall include:**
  - Brief description of the system design, operation, and reset functions.
    - **NOTE:** The master box must be restorable with a silenced and acknowledged alarm present on the alarm panel.
  - Wiring specifications
  - Type of primary and secondary power sources
  - When indicating the equipment being used in the specification book, use arrows to identify the model or part number (do not use a highlighter)
  - List the material being used and quantity
  - Manufacturer's product information sheets (Tech. Bulletins) that include design parameters, power requirements and coverage capabilities.
  - Riser diagram
    - Battery size, calculations and battery discharge curves
    - Voltage drop calculations
    - Address device list with detailed message (e.g., corridor smoke outside room 205; water flow first floor)

### **Municipal Systems:**

- Master box location must be clearly marked on plans. This location must be readily accessible to fire district personnel.
- Plan for connecting Master Box to municipal system such as overhead connection to pole or by underground conduit.
- Additional fee's for the cost of material and labor will be added to the total amount due to the Fire District for buildings requiring a municipal connection that are not within the current range of the hardwired system. See the Guideline for Municipal Fire Alarm Box installation for more information and complete specifications for the Gamewell Fire Alarm Boxes.

The fire alarm system designer is responsible for ensuring that the submitted plans and eventual installation of the system is in accordance with all applicable Rhode Island Life Safety Codes, Current Edition and current version of NFPA 72 adopted by the State of Rhode Island.

Please review all information available and contact the Fire Alarm Division Office at (401) 886-8687 if you have any questions. Information and forms are available on the Fire Alarm page at:

[\*\*www.eqfiredistrict.net/firealarm.html\*\*](http://www.eqfiredistrict.net/firealarm.html)