



WINDSOR FIRE PROTECTION DISTRICT

FIRE ALARM SUBMITTAL—DOCUMENT REQUIREMENTS



SITE PLAN SHEET

- Entire site with all buildings
- Indicate the area of work if not a new site.
- Note the building names or designations for all buildings.
- Show the location of the FACP, all power boosters, terminal cabinets, and any remote annunciator panels.
- Show the conduit runs connecting the panels and buildings; specify the wire type and size.
- SFM file number/project number

FLOOR PLAN SHEET(S)

- Floor plan of every building and every floor within the scope of the work
- Label all rooms as to their use within space on floor plan.
- Show all door swings and all partition walls.
- Show the location of all fire alarm devices and panels (new and existing).
- Show the candela rating of each visual device adjacent to device on the floor plan. (If only one type of visual device is used, candela may be shown on legend only.)
- Show the circuit and device number adjacent to each device (both initiating and annunciating circuits) in the sequence intended to be wired per the riser diagram, i.e., S1-1, S1-2, etc.)

SYSTEM DESCRIPTION

- Type of system: manual or automatic. ("Manual"—activation by pull station as per CFC 1007.3.3.1; "Automatic"—automatic smoke and/or heat detection.)
- Addressable or nonaddressable system (Note: WFPD prefers addressable systems in most applications.)

GENERAL NOTES

- Final fire alarm test will be witnessed by WFPD.
- Underground and exterior conduits will have watertight fittings (CEC 110-11 and 330-6).
- Fire-alarm-device mounting heights:
 - o Pull station: 48" to center line of device above finished floor (CEC 760-16)
 - o Horn, interior: 90" to top of device above finished floor, not less than 6" from ceiling (NFPA72-6.3.5.1)
 - o Wall-mounted strobe or horn/strobe: 80" to bottom of device and not greater than 96" above finished floor, not less than 6" from ceiling (NFPA72-6-4.4); ceiling-mounted strobes per their listing
 - o Audible device(s) shall be at least 15dBA above average ambient sound level but not less than 75dBA at 10' nor more than 120 dBA in total throughout (NFPA72-6-3.1 and CFC 1007.3.3.3).



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- o Visual devices shall not exceed 2 flashes per second (see exception for I 1.1 in CBC) and shall not be slower than 1 flash every second (NFPA72-6-4.2). (ADA may require synchronization of strobes.)

APPLICABLE CODES

- CBC; CEC; CMC; CFC
- California State Fire Marshall Title 19, Public Safety
- NFPA72
- California Building Code with California Amendments

SEQUENCE OF OPERATION

- Describe the sequence of operation of the system. Indicate what occurs when various devices and trouble conditions activate the system. A matrix table is acceptable. Show only the devices within the system.

SYMBOL LEGEND

- Provide a symbol legend if not already provided on other sheets of the electrical drawings. If shown on first sheet of electrical drawings and on fire alarm drawings, be sure that the symbols match, or refer to the fire alarm legend as the one being used.
- Provide a wire schedule noting size wire for indicating and annunciating circuits.

EQUIPMENT LIST

- Indicate the make and model of each fire alarm device or component.
- Indicate the SFM listing number for each device. (This listing may be combined with the symbol legend if identified as such.)
- Provide data cut sheets for devices.
- Provide current SFM listing sheets for devices (data and listing sheets are required for new devices only.)

RISER DIAGRAM

- Show all panels and circuits in straight-line format in the sequence intended.
- Indicate the name of the building for each circuit shown, and indicate by floor.
- Note the EOL resistor for each circuit required.
- Specify the designated 120-volt circuit for connection to FACP and/or power booster. Identify the electrical panel by number and the circuit number. (Reference: NFPA Fire Alarm Handbook)

WIRING DIAGRAMS

- Provide diagrams for wiring connections for all devices in the system.
- Provide a diagram for wiring connection between fire alarm panels and/or power boosters.



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CALCULATIONS

- Provide a separate battery calculation for the fire alarm panel and any power boosters. Note the required load and the size of battery provided. For alterations projects, differentiate between existing and new load and the total load required for the entire system.
- Provide voltage drop calculations for each circuit. Voltage drops shall not exceed 10% maximum unless specific manufacturer's documentation is provided showing devices can operate at the range calculated.

SCOPE OF FIRE ALARM WORK & MISCELLANEOUS INFORMATION

- Provide a few brief lines to identify the scope and extent of the fire alarm work involved. If doing a complete replacement, please so state. If doing alterations or additions, very briefly state the extent of the alterations and/or additions.
- All of the above information must be shown on the drawings with the exception of data cut sheets and listing sheets for fire alarm components; these may be submitted separately in booklet form.
- Be sure to clearly differentiate between new and existing conditions and devices. This can be done with a notation of "(N)" or "(E)" or by written notation.

Plans must be signed by architect of record (AOR), engineer of record (EOR), or installing C-10 licensed contractor.