Fire Alarm System Submittal Requirements

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ALL submittals for fire alarm systems MUST comply with the NFPA 72 minimum requirements and ALL reviews of fire alarm systems, emergency communication systems and alterations and/or additions to existing systems MUST include the information listed on this sheet.

REQUIRED DOCUMENTATION FOR PLAN REVIEW SUBMITTALS

NFPA [72 7.2.1] Minimum Requirements:

- ☐ **Written narrative of the intent and system description.**
- ☐ **Identify the person responsible for system design (layout) on system design documents.**
- ☐ **Use of symbols must conform to NFPA 170 *Standard for Fire Safety and Emergency Symbols*.**
- ☐ **Drawn to an indicated scale (1/8 inch preferred) on sheets of uniform size and with a plan of each floor.**
- ☐ **Riser diagram.**
- ☐ **Floor plan layout showing location of all devices and control equipment.**
- ☐ **Sequence of operation in either an input/output matrix or narrative form.**
- ☐ **Equipment technical sheets.**
- ☐ **Manufacturers published instructions, including operation and maintenance instructions.**
- ☐ **Battery calculations (where batteries are provided).**
- ☐ **Voltage drop calculations for notification appliance circuits.**
- ☐ **Provide NICET III documentation [Effective 7/1/2017]**

Floor Plan Drawings Requirements:

- ☐ **Floor or level identification.**
- ☐ **Point of compass (indication of North).**
- ☐ **Graphic scale.**
- ☐ **All windows and doors.**
- ☐ **All partitions extending to within 15% of the ceiling height (where applicable and when known).**
- ☐ **Room and/or area descriptions.**
- ☐ **System devices/component locations.**
- ☐ **Location of fire alarm primary power disconnecting means.**
- ☐ **Locations of monitor/control interfaces to other systems.**
- ☐ **System riser locations.**
- ☐ **Type and number of system components/devices on each circuit, on each floor or level.**
- ☐ **Identification of any ceiling over 10 feet in height where automatic detection is being proposed.**
- ☐ **Details of ceiling geometries (incl. beams and solid joists) where automatic fire detection is being proposed.**
  - ☐ **Acoustic properties of spaces (where known).**

System Riser Requirements:

- ⎦ **General arrangement of the system in the cross-section.**
- ⎦ **Number of risers.**
- ⎦ **Type and number of circuits in each riser.**
- ⎦ **Type and number of system components/devices on each circuit on each floor.**
- ⎦ **Number of conductors on each circuit.**

Control Unit Diagrams Requirements:

<u>ALL</u> control equipment (equipment listed as either a control unit or control unit accessory), power supplies, battery chargers and annunciators must have diagrams and include the following:

- ⎦ **Identification of control equipment depicted.**
- ⎦ **Location(s) of control equipment.**
- ⎦ **All field wiring terminals and terminal identifications.**
- ⎦ **All circuits connected to field wiring terminals and circuit identifications.**
- ⎦ **All indicators and manual controls.**
- ⎦ **Field connections to supervising station signaling equipment, releasing equipment or emergency safety control interfaces (where provided).**

Typical Wiring Diagrams and System Calculations Requirements:

- ⎦ **All initiating devices, notification appliances, remote indicators, remote test stations, end-of-line and power supervisory devices.**
- ⎦ **Narrative description or input/output matrix of operation describing the sequence of operation.**
- ⎦ **All NEW fire alarm systems must identify the location of a document cabinet [NFPA 72 7.7.2].**
- ⎦ **Battery calculations.**
- ⎦ **Notification appliance circuit voltage drop calculations.**
- ⎦ **Other required calculations, such as, line resistance calculations (where required).**