

**Carlsbad Fire Department
Fire & Life Safety Division**

**Guideline for
Fire Alarm Systems
NFPA 72**



Approved and Authorized By:

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PURPOSE

The intent of this guideline is to provide information necessary to ensure that the design and installation of fire alarm systems comply with applicable provisions set forth by 2022 California Fire Code (CFC), 2022 California Building Code, and 2022 NFPA 72 as adopted by the State of California, and locally adopted ordinances enforced by the city of Carlsbad, Office of the Fire Marshal (CFD).

SCOPE

This guideline provides specific requirements for the installation and of fire alarm systems.

SUBMITTAL REQUIREMENTS

1. General Requirements

- A. Submit three (3) sets of legible, scaled plans with one (1) set of current and complete technical data sheets/manufacture's specifications to Carlsbad Fire & Life Safety Division.
- B. Plans shall be submitted for approval to the City of Carlsbad before any equipment is installed or altered.
- C. All plans shall be submitted in accordance with 2022 NFPA 72.

2. Place Verbiage Verbatim on Plans

- A. Scope of work.
- B. State the edition of the Building Code and Fire Code to which the architectural plans were designed and the building permit was issued
- C. All plans shall meet the minimum required documentation requirements in accordance with 2022 NFPA 72 section 7.2.
- D. Installation requirements shall meet all requirements in accordance with 2022 NFPA 72 section 7.4. (Shop Drawing requirements)
- E. Project Identification: Complete address of the project (include building names/numbers, suite numbers, and tract and lot numbers for residential projects).
- F. Device Data Sheets: Provide one set of device manufacture data sheets for all devices.
- G. Equipment Legend/Bill of Materials: The legend shall indicate newly added, relocated, and replaced devices. The legend shall also provide device symbols, manufacturer name, model number, and the California State Fire Marshal listing numbers.
- H. Approved drawings and documents shall be retained. Drawings shall be accessible upon request. After final inspection, approved shop drawings and maintenance

instructions shall be properly delivered to a representative of the occupying business, who shall offer copies to the building owner in accordance with 2022 NFPA 72, 7.5.3 and 7.7.1.

- I. Written records and reports of the alarm system testing frequencies and results, shall be available for review on the premises for the CFD inspector during fire inspections.
- J. Any future modifications to the system after this final CFD inspection shall cause a new plan to be drafted and submitted by the tenant or building owner. The modifications shall not be started until the new plans are approved by CFD (NFPA 72, 7.5.6.6).
- K. Where necessary, revised calculations in accordance with 7.4.10 shall be provided depicting any changes due to installation conditions.
- L. The batteries shall be able to run the system in stand-by mode for 24 hours without building power in a non-alarm condition, and then immediately be able to operate all devices for 5 minutes (15 minutes is required for voice evacuation systems in accordance with NFPA 72, 10.6.7).
- M. Where a building fire alarm or monitoring system is installed, automatic fire-extinguishing systems shall be monitored to the central supervising station by the building fire alarm or water flow system.
- N. Where a building fire alarm system is installed, clean agent systems shall be monitored to the central supervising station by the building fire alarm or water flow system.
- O. Mix-Use Buildings: Where mix-use buildings contain commercial cooking operations and are protected by a fixed extinguishing system, activation of a fixed extinguishing system shall only initiate occupant notification within the specific space or suite. All other initiating devices within the space or suite shall notify all occupants within the entire building.
- P. Duct Detection: Duct detectors are only required to be tied to the main fire alarm panel, when the alarm system is required by CBC 907.2. When tied to the main fire alarm panel, duct detection activation shall only cause a supervisory signal to the central supervising station. For buildings that only have a water flow alarm or the duct detector activation shall provide a visible and audible signal at an approved location, but does not need to notify the central supervising station.
- Q. Building Fire Alarm System: All system devices, components, monitor control interfaces, and locations shall be indicated on plans per section 7.2 (e.g., HVAC duct detectors, smoke dampers, fire dampers, fan control, smoke doors). All detection devices shall be illustrated in the sequence of operations.
- R. If proposing a system or specific devices that are not required by codes, provide a disclosure letter (“Voluntary Systems/Device”) indicating scope of work. Letter shall state verbatim “The signee is aware the devices are not required, but the additional devices for greater life safety protection for the occupants and building protection. The system will be tested and maintained per code requirements. The devices that are not required are _____.” (List individual types of devices).

- S. System Record of Completion is required prior to all fire alarm system final in accordance with CFC 907.7.2.
- T. All modifications made after the initial installation shall be recorded on a revision of the original completion documents.
- U. Emergency Communication Systems supplementary record of completion is required prior to final.
- V. For new installations of elevators, elevator must be tested and certified by the state prior to fire alarm final.
- W. When the Fire Alarm Control Unit (FACU) panel is in a room accessed through a door, a permanent sign shall be provided on the door indicating, "Fire Alarm Control Unit" or equivalent. When there are sub-panels, door signs shall also indicate where the main FACU panel is located.
- X. Call Inspection Scheduling Line at (442) 339-2660 to schedule all inspections at least 48 hours in advance.