

**Carlsbad Fire Department
Fire Prevention Bureau**

Guideline for Automatic Fire Sprinkler System NFPA 13



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 automatic sprinkler systems comply with applicable provisions set forth by 2019 California Fire Code (CFC), 2019 California Building Code, and 2016 NFPA 13 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 of automatic fire sprinkler 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 Prevention.
- B. Plans shall be submitted for approval to the City of Carlsbad before any equipment is installed or remodeled.
- C. Plans shall be drawn in accordance with NFPA 13 section 23.1.3.

2. Place following notes verbatim on plan

- A. Scope of work.
- B. Sprinkler plans shall be approved prior to the installation of any piping. A set of approved plans with hydraulic calculations shall be maintained at all times at the construction site.
- C. This automatic fire protection system shall be designed, fabricated, and installed in accordance with 2016 NFPA 13, 2019 California Fire Code, and local amendments enforced by the City of Carlsbad.
- D. Deviation from approved plans shall require permission of the City of Carlsbad.
- E. The point of connection is _____ (i.e., 6" above finished floor).
- F. Hydraulic elevators shall be protected in accordance with CBC/CFC and NFPA 13 Standards.
- G. When draft curtains are required due to the use of specific application sprinkler heads, draft curtain locations and construction material shall be identified on plans.
- H. All valves shall have a permanently affixed sign indicating function and building protected.

- I. All system risers shall be equipped with a Hydraulic Design Information Sign as amended in 2016 NFPA 13, Section 25.5.1.
- J. The installing contractor shall provide a general information sign used to determine system design basis and information relevant to the inspection, testing, and maintenance requirements as amended by 2016 NFPA 13 section 25.6.1.
- K. All underground mains and lead in connections shall be flushed in accordance with NFPA 13 and/or NFPA 24 prior to connection to the overhead system and shall be witnessed by the City of Carlsbad inspector.
- L. The installer shall perform all required acceptance tests in the presence of the fire inspector.
- M. All new systems and additions or modifications to existing piping affecting more than 20 sprinklers shall be hydrostatically tested at 200 psi for two hours or at 50 psi above the system operating pressure, whichever is greater. Hydro testing above operating pressure is not required for relocated drops.
- N. All FDCs, wall PIVs, and exterior/exposed sprinkler riser valves shall be painted OSHA safety red. Other fire sprinkler or supply pipe exposed to the sky or susceptible to wet conditions shall be painted (any color) or otherwise coated to inhibit corrosion. Stainless steel assemblies and piping may be left unpainted provided that any hose connections, valves, or other components operated by the fire department are painted red.
- O. Other fire sprinkler or supply pipe exposed to the sky or susceptible to wet conditions shall be painted (any color) or otherwise coated to inhibit corrosion. Stainless steel assemblies and piping may be left unpainted if any hose connections, valves, or other components operated by the fire department are painted red.
- P. Listed corrosion-resistant sprinkler shall be installed in locations where chemical, moisture, or other corrosive vapors sufficient to cause corrosion of such devices exists.
- Q. The installing contractor shall complete and sign the appropriate contractor's material and test certificate(s) for aboveground piping upon completion in accordance with NFPA 13 chapter 25.
- R. All system testing requirements shall be in accordance with NFPA 13 chapter 25.
- S. Marking on access doors. Access doors for automatic sprinkler system riser rooms and fire pump room shall be labeled with an approved sign. The lettering shall be in contrasting color to the background. Letters shall have a minimum height of 2 inches (51mm) with a minimum stroke of 3/8 inch (10 mm) per CFC 901.4.6.2.
- T. All sprinkler piping shall remain uncovered until inspected by City of Carlsbad.
- U. Call Inspection Scheduling Line at (442) 339-2660 to schedule all inspections at least 48 hours in advance.

