



Clovis Fire Department

Standard # 13

FIRE STANDPIPES

The 1997 Uniform Fire Code, Section 1001.9, Special Hazards, authorizes the Fire Chief to determine the need for adequate fire protection of all buildings located in the City of Clovis. Fire protection appliances in the form of standpipes may be required in buildings larger than twenty thousand (20,000) square feet, or more than two (2) stories in height, or of unusual interior or exterior design.

When standpipes are required, the following criteria shall apply:

1. The standpipe drops shall be identified with a blue strobe light. Location and intensity of the strobe light shall be approved by the Fire Department prior to installation. Activation of the blue strobe light shall be in conjunction with the fire alarm system as per NFPA 72.
2. When the size of the fire sprinkler system requires multiple fire sprinkler risers, the standpipes shall be fed by the opposite fire sprinkler riser. Example: Riser "A" feeds standpipes in Riser "B" area and vice versa.
3. Outlets shall be not less than three feet (3') or more than five feet (5') above floor level.

In occupancies of hazardous nature, where special hazards exist in addition to the normal hazards of the occupancy, or where the fire code official determines that access for fire apparatus is unduly difficult, the fire code official shall have the authority to require additional safeguards. Such safeguards include, but shall not be limited to the following; automatic fire detection system, fire alarm systems, automatic fire extinguishing systems, standpipe systems, or portable fixed extinguishers.

The number and arrangements of standpipe equipment necessary for proper protection is govern by local conditions such as the occupancy, character, and construction of the building and its accessibility. The authority having jurisdiction {CLOVIS FIRE DEPARTMENT} shall be consulted regarding the required type of system, class of system, and special requirements.

Building Height; Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet above the lowest level of the fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet below the highest level of the fire department vehicle access.

Only Class I Standpipes are recognized for approved by CFD.

Where the roof has a slope less than four units vertical in 12 units horizontal (33.3 - percent slope), each standpipe shall be provided with a hose connection located on the roof and at the highest landing of a stairway with access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

Fire standpipe installation shall be approved by CFD.

Fire standpipes shall be installed in accordance with CFC section 905 and NFPA Standard #13 and #14 and shall be approved by CFD.

Standpipes system piping shall not pass through hazardous areas and shall be located so that it is protected from mechanical and fire damage.

When standpipes are installed;

The location of the fire dept hose connections shall be approved by CFD.

Outlets shall be located a minimum of three feet (3') and maximum of five feet (5') above finish floor and unobstructed.

Standpipes shall be located at all perimeter entrances at the discretion of CFD.

Separate Standpipes shall be provided in each required stairway.

Where two or more standpipes are installed in the same building or section of a building, they shall be interconnected at the bottom.

Minimum flow rate; For Class I standpipes systems the minimum flow rate for the hydraulically most remote standpipe shall be 500 gpm. The minimum flow rate for additional standpipes shall be 250 gpm per standpipe, with the total not to exceed 1000 gpm in a sprinklered building. The system shall be sized to provide the required water flow rate at the most-remote standpipe with a minimum residual pressure of 100 psi at the topmost 2.5 inch hose outlet. Note; The fitting friction loss shall be accounted for.

Hydraulic Calculation procedure: Hydraulic calculations and pipe sizes for each standpipe shall be based on providing 250 gpm at the two hydraulically most remote hose connections on the standpipe and at the topmost outlet of each of the other standpipes at the **minimum** residual pressure of 100 psi at the outlet. This will be based on the system demand being supplied by a 1500 gpm fire pumper at 150 psi.

Each connection from a standpipe that is part of combined system to a sprinkler system and interconnected with other standpipes shall have an individual control valve and check valve of the same size at the connection.

Valves shall be provided to allow isolation of a standpipe without interrupting the supply to other standpipes from the same source of water.

Contact the Clovis Fire Department, Prevention Division at (559) 324-2200 with a floor plan so that determination can be made as to whether this requirement applies.