



Menlo Park Fire Protection District Fire Prevention Bureau

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MENLO PARK FIRE PROTECTION DISTRICT STANDARD UNDERGROUND STANDARDS

SCOPE: This standard applies to the design and installation of underground fire piping for automatic fire sprinkler systems and fire hydrant connections. Underground fire piping systems shall be in accordance with NFPA 24 and this Menlo Park Fire Protection District Standard. All individuals and companies who intend to engage in the installation or alteration of underground fire piping systems are subject to the requirements of this standard

RESPONSIBILITY

The underground fire piping system shall be installed by an individual holding a Class A or C-16 State of California Contractor's License. A Licensed Contractor shall only design systems that the firm has a contract to install.

GENERAL REQUIREMENTS

Pipe & Fitting Protection

Menlo Park Fire District requires additional pipe protection throughout the jurisdiction. All metallic pipes and fittings shall be Epoxy Coated, Polyethylene Encased. All bolts, nuts, tie rods, etc. for all portions of the underground mains shall be 316 stainless steel. The transition from underground main to the sprinkler riser shall have a dielectric flange connection. Complete details shall be shown on the plan drawings.

Double polyethylene bags and mastic are not allowed.

Tracer Wire

Tracer Wire shall be required on all underground fire lines and to be minimum 10 A.W.G.

Cover – Depth

The depth of covering shall be measured from top of pipe to finished grade.

Under areas of vehicular traffic – 3 feet minimum

Under landscaping and walkways – 2 ½ feet minimum

Under railroad tracks – 4 feet minimum (See railroad specs)

Backfill

Backfill materials shall contain no ashes, cinders, debris, organic matter, or other corrosive materials. Rock shall not be placed in trenches.

Valves

Fire Department Valves shall be of an indicating type.

Fire Department Connection (FDC)

The FDC shall be located 2 – 3 feet back from walkways or curbs and shall indicate the address of the building it supports.

The FDC shall be visible from street and properly identified.

FDC's shall be located within 50 feet of a fire hydrant.

The centerline of FDC shall be between 36 – 44 inches from finished grade.

The FDC shall remain clear of obstructions and remain accessible.

Fire Hydrants

See also Menlo Park Fire District Standard, "Water Supplies, Fire Hydrants."

Fire hydrants shall be installed with a minimum 6" pipe, supplied by a minimum 8" supply line.

All fire hydrants shall be wet barrel type with one 4 ½" connection and two 2 ½" connections.

Blue Dots shall be installed off center of drive isle to indicate hydrant location. All private fire hydrants shall be painted red.

TESTING PROCEDURE

In accordance with NFPA 24, a 200 psi pressure test is required for a minimum of 2 hours.

All thrust blocks and joints to be exposed at time of inspection.

Menlo Park Fire District Inspectors shall witness the flush of underground piping. Six inch piping shall require a minimum of three 2 ½" hoses for the flush, Eight inch piping shall require a minimum of four 2 ½" hoses for the flush,

A final inspection is required with all corrections completed

PLANS SUBMITTAL PROCEDURE

- A. Submit a Menlo Park Fire District Plan Review Application, a minimum of two sets of plans, and the appropriate fees (See Menlo Park Fire District Fee Schedule). All fees shall be paid at the time of plan submittal.
- B. Plans will be checked and if approved, will be stamped, signed and dated. The Fire District will retain one set.
- C. One copy of the Fire District stamped plans and the original permit card shall be maintained on the job site.
- D. All modifications/changes to existing systems require a plan check and inspection by the Fire District.
- E. Excessive field changes may require re-submittal of plans along with additional plan check fees.

SCHEDULING INSPECTIONS

- A. The inspection fee that is paid at the time of plan submittal will provide you with two inspections to complete the project (one rough inspection and one final inspection). For projects that exceed this limit, inspection requests will not be accepted unless additional fees are paid prior to scheduling an inspection.
- B. It is the responsibility of the installing contractor to be on the job site during the inspection with approved plans and the original permit card. Failure to do so will result in the cancellation of the inspection. Cancelled inspections will be counted as one inspection.
- C. Inspection requests can only be taken from the installing contractor.
- D. Contact Fire District Inspectors at least two business days prior to inspection for scheduling an inspection. Call the inspector of record indicated on the permit card.
- E. Inspection times are approximate and may vary because of delays at previous inspections or emergency response by Fire District personnel. Please allow time on either side of the inspection time for the inspector to arrive.