



# CLOVIS FIRE DEPARTMENT

## Standard #31

### Fire Service Underground

Prior to installation, the applicant shall submit fire service underground water supply plans for review, approval and issuance of a building permit by the Clovis Fire Department. Installation shall be done by a licensed California contractor with one of the following licenses: C16, C34, C36 or "A".

All underground systems shall be in compliance with NFPA 24, NFPA 13 and CFD Standard #31, City of Clovis Standard W-4.

Prior to final acceptance, the underground fire service line shall be inspected, pressure tested and flushed in the presence of a Clovis Fire Department inspector. A building permit is required to be on-site for all inspections.

**Important Note** – Approval of the public utility plans does not include approval of the fire service underground plans. They require separate submittals and separate approvals. Exhibit 'A' illustrates the order of required appliances and valves. This illustration does not show the geographical locations.

#### Testing

Hydraulic pressure testing of all fire service underground components shall occur for 2 hours at 200 psi. The test shall be witnessed by the Clovis Fire Department inspector at the beginning and the end of the 2 hours. During the test, the street valve is to be closed and the PIV and blow off opened. No pancakes are allowed.

#### Joint Restraint

Joint restraint shall follow the requirements of NFPA 24. All tees, reducers and valves shall be restrained against movement. Thrust blocks must be dug out to undisturbed soil. The fire department shall inspect all joint restraint prior to backfilling. All exposed metal components shall be corrosion-resistant.

#### Fire Department Connection (FDC)

The location of the FDC must be reviewed and approved by the Clovis Fire Department prior to installation. The attached drawing is for reference only and is not indicative of where the FDC will be located.

FDC – Only listed underground piping shall be installed on the primary water supply side of the check valve. Galvanized piping may not meet this standard.

The top of the FDC is to be 36" above finished grade and there shall be a minimum of 36" of perimeter clearance.

The FDC shall not have any obstructions that may impede fire department usage.

When a fire pump is required by the overhead system demand, the FDC shall be connected on the discharge side of the fire pump plumbing.

### FDC Signage

In systems where the fire sprinkler and/or fire standpipe system demands are greater than 150 psi – a sign shall be provided at the FDC indicating the following information:



The sign shall be of durable (red colored) metal and may be attached to the FDC by U-bolts. The lettering shall be of white one-inch (1") height durable lettering.

### Riser

The underground riser shall be a minimum of 4" piping. A space 4" larger than the riser shall be maintained where the riser passes through foundations. The riser stub shall terminate approximately 6" above the finished floor.

### Post Indicator Valve (PIV)

The top of the PIV is to be 36" above finished grade. Conduit shall be brought to the PIV for supervision purposes. The open/shut indicator must be properly adjusted.

### Pipe

The piping shall be at least 4" in diameter. Piping shall be a minimum of 30" below grade in all areas except under driveways, which shall be at least 36" below grade. All pipe markings shall be visible from the top of the trench.

### Flush

All piping, including the FDC line, shall be flushed with the Clovis Fire Department inspector present. Flow velocity during the flush shall meet the requirements of NFPA 24. Once completed, all open ends shall be capped with listed metal caps.

### Tracer Wire

All non-metallic underground piping shall have tracer wire or tracer tape installed continuously along the length of the pipe, passing through the inside of each valve box and terminating at the bottom of the riser and the FDC. Tracer wire shall be #10 stranded copper, white insulation.

### Identification

Refer to Clovis Fire Department Standard #15 for the required address identification of the FDC and PIV.

# Exhibit 'A'

## Clovis Fire Department Standard #31

### Fire Sprinkler Underground

