FIRE PREVENTION DIVISION
1600 FIRST STREET, NAPA, CA 94559
707.257.9590

Fire Service Mains

- No underground piping, fittings or thrust blocks shall be covered before visual inspection and approval by the Fire Inspector. The following inspections are required for underground piping serving fire sprinkler systems and/or private hydrants: 1) ***Pre-pour Inspection***; 2) ***Hydrostatic testing***; 3) ***Flush Inspection***.

- **Required IBR Sweep:** shall be installed as per the Underground IBR Detail on the Construction Inspection webpage.

- **Pre-pour Inspection:** Thrust block excavation shall be completed; but thrust blocks shall not be poured. All pipe shall be in place and exposed for visual inspection. Pipe shall be laid on a minimum six-inch bed of clean sand, pea gravel or quarry fines. Trench shall be of a sufficient depth to allow the required cover above the pipe. Ferrous pipe and fittings shall be wrapped and tightly taped to inhibit water infiltration. Bolts and ferrous joints, pipe, and fittings shall be coated with asphaltic sealant or other corrosion retarding material.

- **Hydrostatic Testing:** Thrust blocks shall be in place and cured. Pipe shall be center loaded with clean sand to prevent uplift, but all joints shall remain exposed. The system shall be hydrostatically tested at 200 psi (or 50 psi over maximum static pressure, whichever is greater) for a duration of at least two hours.

- **Flush Inspection:** Underground piping, from the water supply to the system riser, and lead-in connections to the system riser, including all private hydrants, shall be completely flushed before the connection is made downstream to the fire protection system piping. The minimum flow shall be in accordance with NFPA 24. Hoses shall be restrained to prevent injury or damage.

- **The Storm Water Department:** shall be notified of the scheduled flush. See Underground Fire Service Flush Information for required steps on how to notify the Storm Water Department and schedule an inspection. De-chlorination, water containment and/or discharge shall be the responsibility of the contractor. ***Note: The Flush and Hydrostatic inspections may be scheduled concurrently.***

- **Signage:** Prior to fire final project approval, all detector check assemblies, control valves, and fire department connections (FDC) shall be clearly labeled with the address(es) served by the device. Address signs shall be securely attached to the device and be of a durable, fade-resistant material which is clearly visible and legible. FDC and 4 ½ - inch hydrant outlets shall be unobstructed and oriented toward the fire access. Valves shall be locked in the open position with breakaway locks. All valves, backflow assemblies, and private hydrants shall be painted OSHA yellow. Hydrant and FDC caps shall be in place and secured.

- **Certification:** A Contractor's Material and Test Certificate for Underground Piping form shall be signed by the installing contractor and owners' representative. Contractors can upload files through the Fire Prevention page on the City of Napa website. Follow the link to upload the required certifications. www.cityofnapa.org/ConstructionInspection

- **Inspection Request:** Construction inspection requests can be made 24 hours a day. We strive to schedule your inspection within 24 hours, excluding weekends and holidays. You may request a preferred morning or afternoon time for your inspection. However, please understand, due to the volume of inspections we receive that may not always be possible. You will receive an email from an Inspector confirming the request with a specific date and time of the inspection. All Fire Prevention inspection requests shall be made by the contractor performing the work. Superintendents and general contractors shall not call to schedule inspections unless for striping or Fire Final. All construction inspections shall be scheduled through the Fire Prevention page on the City of Napa website. Follow the link to schedule a construction inspection. www.cityofnapa.org/ConstructionInspection

General Requirements:

- Installation, inspection, and testing shall conform to NFPA 13 and NFPA 24. Napa Fire Department jurisdiction starts at the downstream side of the last valve on the detector check assembly. Verify design and installation requirements for the portion of the system preceding this point with the Public Works Department, Water Division.

- Water-Related Public Works Standard Plans and Specifications are available on the City of Napa Public Works Department website.(Public Works Standards.)

- Vegetation shall be selected and maintained in such a manner as to allow immediate location of and unobstructed access to; all hydrants, control valves, fire department connections, and other devices or areas used for firefighting purposes.
- A minimum three-foot clearance shall be provided around all hydrants. A minimum of three-foot clearance shall be provided on at least one side of a detector check assembly to allow proper operation of the device. The front of the FDC shall be free of any obstructions.
- Any future modification to the approved private underground piping system is subject to review, inspection and approval by the Napa City Fire Department.

Pipe and Trench Requirements:

- Required IBR sweep shall be installed as per the Underground IBR Detail on the Construction Inspection webpage.
- A six-inch (6") bed of clean fill sand, pea gravel or quarry fines shall be provided below the pipe and twelve-inches (12") shall be provided above the pipe.
- Pipe shall be buried at least 36" where subject to loading (e.g., driveways, parking lots) and at least 30" elsewhere.
- All pipe shall be approved for use in fire service systems. Class 150 will be used at a minimum, and class 200 pipe shall be used where water pressure exceeds 150 psi. The use of galvanized pipe is prohibited when a portion of the pipe is buried.
- All ferrous pipe and fittings shall be protected by wrapping in polyethylene sheeting.
- All bolts and ferrous fittings used for underground connections shall be cleaned and thoroughly coated with asphalt or other corrosion retarding material after assembly and prior to wrapping.
- Thrust blocks, or another approved method of thrust restraint, shall be provided wherever pipe changes direction and shall be as per NFPA standards not City of Napa Public Works standards.
- A minimum two-inch clearance shall be provided where the pipe passes through slabs or walls. Underground system shall terminate at the riser flange and placed a minimum of 18- inches and a maximum of 24-inches from an exterior wall and 6-inches above the slab.
- Pipe running under a building or building foundation shall be stainless steel and shall not contain mechanical joints.

- ***O*** The FDC shall contain a minimum of two-2 ½ inch inlets. When the system design demand including interior hose stream demand or a standpipe is a minimum of 500 GPM, four- 2 ½ inch outlets shall be provided.