



CONSTRUCTION STANDARDS HANDBOOK

This Standards Handbook applies to all new or replacement water service supply lines to be constructed and connected to the District's Water Distribution System.

Before connecting to the District's facilities be certain you and your contractor are familiar with the requirements contained herein. Some of these requirements are supplemental to the California Plumbing Code due to conditions specific to the Sierraville area. The District has primary responsibility for the inspection of the water service from the point of connection to the District's distribution system at the property line to the building foundation. The procedures and requirements for obtaining water service in accordance with Section 8 of the District Ordinances are described below:

APPLICATIONS AND PERMITS

Prior to commencing any clearing or groundwork on the lot, the applicant is required to submit the following information to the District:

- Completed SPUD Application for Water Connection Permit;
- A Site Plan showing proposed improvements, existing utilities, easements and topography;
- Building Floor Plans showing proposed plumbing fixtures and living space; and
- Fire Sprinkler plan prepared by a licensed professional showing meter and lateral size and backflow protection.

Following the payment of the Application Fee the District will complete the plan check process. Upon payment of the Facility and Meter Deposit fees, the District will issue the Connection Permit and notify the Sierra County Building Department that all District requirements have been met, and the Building Permit may be issued by the County of Sierra. The applicant is required to provide a copy of the Sierra County Building Permit to the District within 30 days of issuance.

If an existing customer proposes to replace the existing water service to the building, the District requires written notification before the work commences. The Customer is not required to pay Facility or Application fees.

Prior to any excavation, the Contractor must notify all utility providers of his/her intent to excavate. Call Underground Service Alert (800-227-2600 or 811) at least two working days in advance of all excavation activity. Only after all utility providers have identified the location of their respective infrastructure can work to expose the District's water system infrastructure begin.

WATER SERVICE MATERIAL REQUIREMENTS

The following materials shall be used:

- Type K copper pipe or polyethylene tubing (AWWA C901, PE 3408, copper tube size, DR9 (Pressure Class 200). Pipe joints shall be compression type fittings, and the diameter based on fixture units and/or fire sprinkler requirements



- 12 gage tracer wire and blue warning tape shall be attached to the customer's shut-off valve and "daylight" at the foundation;
- Mueller H14104N or approved equivalent meter setter in Christy N40 Box with extensions and composite lid;
- Customer shut-off valve to be Mueller H1504N or approved equivalent curb stop with 4- inch PVC riser and cap; and
- All fittings and materials shall be brass or copper and "lead free".

State law requires the installation of a water meter, the size based on fixture units and/or fire sprinkler requirements. All materials required for the installation of the water service and meter pit, with the exception of the meter, shall be supplied by the applicant. The District will supply the meter at cost to the applicant.

If the parcel is not currently served by the District, or the existing lateral requires upsizing to meet fire flow requirements, the Owner is responsible for all costs associated with installation of the new or replacement lateral from the water main to the property line. The Owner may propose a licensed contractor to install/replace the lateral subject to District approval. Alternately the District will retain a licensed Contractor to perform the installation/replacement, and the Owner will be responsible for reimbursing the District for all related costs.

If the building will have a boiler/hydronic heating system with a direct connection to the domestic water supply or a fire sprinkler system, installation of a Reduced Pressure Assembly is required to prevent contamination of the District's water distribution system. Testing of the RPA by a certified tester is required prior to final approval by the District. The results, along with the tester's certification criteria, must be submitted to the District electronically. Annual testing of the assembly will be required going forward.

Your home's electric system shall not rely on house plumbing or service lateral to provide the system ground required by the National Electric Code.

Your water will be turned on after installation of the service and water meter, all inspections are complete/approved, and all fees or charges have been paid in full.

DO NOT TURN ON THE WATER OR OPERATE ANY DISTRICT VALVE OR FIRE HYDRANT

WATER SERVICE INSTALLATION REQUIREMENTS

Install the water service, customer shut-off valve and water meter pit in accordance with these requirements and Figure 1.

No power, telephone, CATV, or propane conduits or piping are allowed within twelve (12) inches of the water service except when crossing at a 90-degree angle. The separation requirements begin no more than five (5) feet from the point(s) of connection to the District's system and continue to the house foundation.



For adequate frost protection, a minimum of thirty-six (36) inches of cover is required above the top of the water service and the top of the meter shall be 18" to 24" below finished grade.

The pipeline shall be placed on a compacted bed of sand (100% passing 1/2-inch sieve, 35-100% passing #4 sieve, sand equivalent >20), free from construction materials, debris and other deleterious materials. The substitution of job-excavated material conforming to these requirements is permitted. The bedding shall be a minimum of three (3) inches deep under the pipe, six (6) inches between the pipe and the trench wall and compacted to 95% Relative Compaction (ASTM D1557).

Pipezone backfill material shall be sand (100% passing 1/2-inch sieve, 35-100% passing #4 sieve, sand equivalent >20), free from organic matter, construction materials, debris and other deleterious materials. The substitution of job-excavated materials conforming to these requirements is permitted. Pipezone backfill shall be placed to a minimum depth of twelve (12) inches over the top of the pipe and compacted to 95% Relative Compaction (ASTM D1557) using suitable mechanical equipment.

The trench backfill above the pipezone backfill may consist of job-excavated material in non-traffic areas. It shall be free from deleterious and organic material and shall not contain any particles larger than three (3) inches in diameter. The backfill shall be compacted to 90% Relative Compaction (ASTM D1557). The backfill above the pipezone in traffic areas shall meet Placer County requirements for Class 2 Aggregate Base and be compacted to 95% Relative Compaction (ASTM D1557).

INSPECTIONS

The District Inspector/Water Operator will not conduct any inspections of a new service if a Sierra County Building Permit has not been issued. You must contact the District Administrative Office (530-414-5994) 48 hours in advance (weekdays only) to schedule inspections. Inspections will occur based on the Inspector/Water Operator's availability, Monday through Friday.

The inspection shall include verification of water pipe materials, fittings, water meter pit location, customer shutoff valve, backflow prevention device (if required), trench backfill under pipes, water service pressure test, required separation between utilities and sufficient pipe bedding on site to complete the trench backfill.

The District will notify the Sierra County Building Department when all work is completed to meet the District requirements.