

PROCEDURES AND STANDARDS FOR WATER MAIN REPLACEMENT

New Water Main Installation

The new water mains and District service lines constructed to SSWD standards will be installed in public right-of-ways fronting the properties, in most cases approximately 3 feet from the lip of the gutter. New customer in-tract service lines (Schedule 40 PVC) will extend from the outlet side of the meter to a point of connection with the existing customer in-tract service line in the backyard or an existing hose bibb at or near the front of the house. Included in the installation of the customer in-tract service will be a curb stop, water meter with meter setter, and a utility box. The actual location of the service is determined by a District Representative or Engineer with input from the homeowner. However, placement within 3 feet of the lot line is desirable. The new customer in-tract service line from the main to the point of connection will be the responsibility of the District for a one year warranty period. After the warranty period has expired the homeowner will retain the responsibility of maintenance from the outlet side of the meter to the point of connection to their house or in-tract service line.

If the property requires a backflow device (as defined in the District Regulations), after proper notification, the District will install one and the customer will be billed. If an existing backflow device requires relocation and the existing backflow device does not meet District Standards, the District will install a new backflow device at no cost to the customer.

As part of the main replacement project, new steamer-type fire hydrants meeting District Standards will replace existing hydrants. Additional fire hydrants will be installed to meet current District and Insurance Services Office (ISO) Fire Standards for spacing in residential and/or commercial neighborhoods. Overall, this should improve fire protection reliability and firefighting capability within the District. The project will also provide for the installation of new mainline isolation valves to meet current SSWD Standards.

With 126 miles of backyard water mains still in service, not all of the backyard mains will be relocated prior to the requirement, by law (AB 2572), that meters shall be installed for each customer by 2025. Therefore, some meters will have to be installed in backyards pending water main relocation. Meters that are installed in the rear yards will have the same radio read telemetry as the meters installed in the front yards, allowing data collection without entering the property. The *Water Meter Retrofit Plan* that

is currently being implemented was originally adopted by the Board of Directors in February 2004, was updated in September 2007, and is in the process of being updated again.

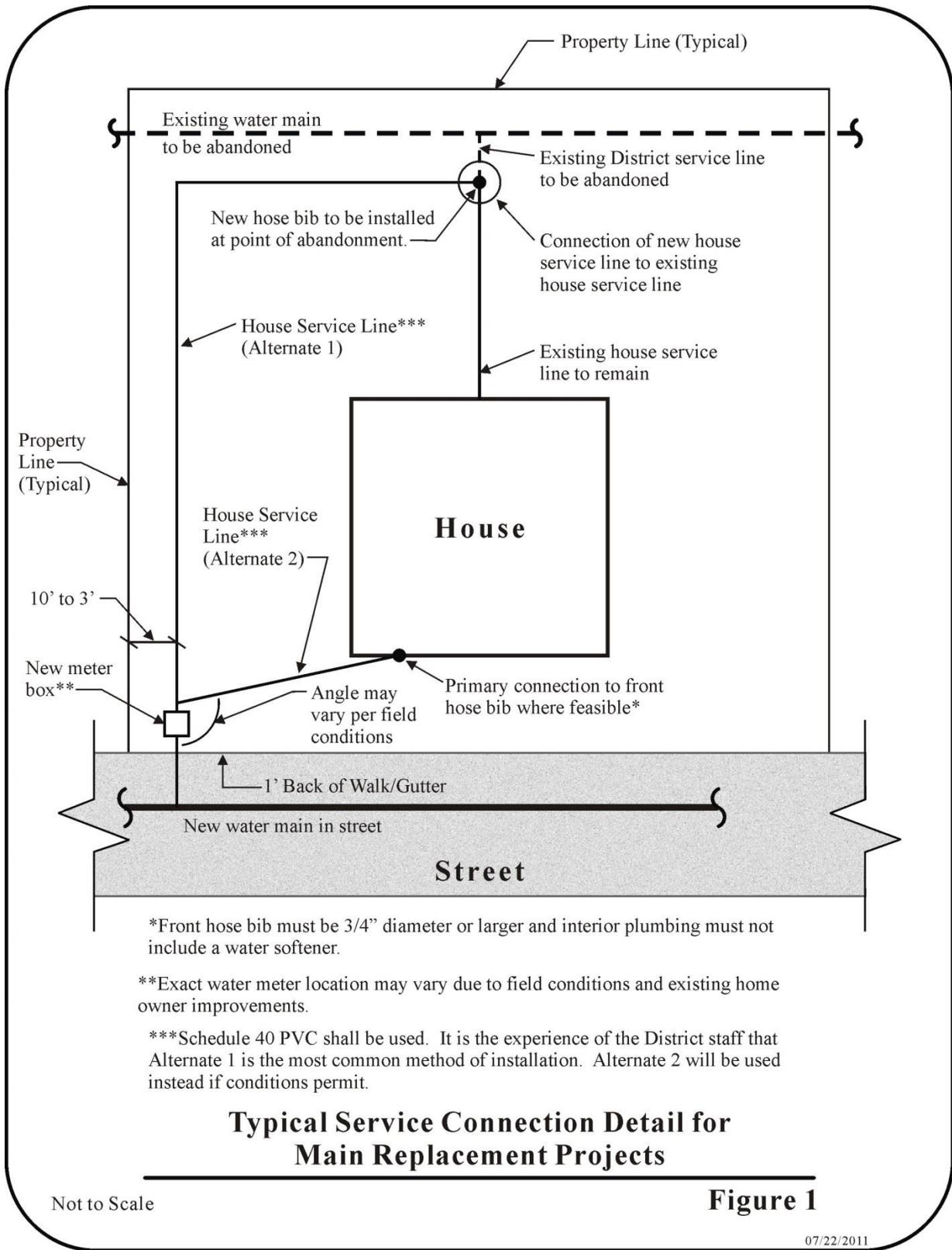
Customer In-Tract Service Lines

Residences that have water mains located in the front yard, but have no meters, will have a new meter and utility box installed and reconnected to the existing customer service line. In some instances a new service line will be installed to the house as determined by the District.

Homes served by backyard water mains typically have services that connect at the back of the house, or, sometimes, on the side of the house. Many backyard services have connections for irrigation systems, hose bibs, etc. between the District's shut-off valve and the house. To provide a new service without disrupting any known or unknown irrigation lines, it is necessary to evaluate each customer's existing service line to insure that existing water pipe connections remain in service.

Directional boring machines are typically be used as a means of installing a new customer in-tract service line. The machine will bore underground between two or more receiving pits. This method provides the least disturbance to existing landscaping. Open trenching may be used where conditions are favorable, or directional boring is inappropriate, and when approved by the District. As a result of an on-site meeting with the customer, when possible, and a representative of the District will be determined where the point of connection with the customer's in-tract service line will be located. It is important that the customer and the District work together to determine the point of connection and the water line path that is satisfactory to both parties.

The typical location of the water service line is shown in Figure 1. Schedule 40 PVC pipe is known for high durability and longevity and will be used for the customer in-tract service lines. The homeowner may choose to have a copper service line; however the cost difference between the copper and Schedule 40 PVC shall be at the homeowner's expense. Meters and utility boxes with the latest technology in radio read telemetry will be installed in the front yards adjacent to the County Right-of-Way. Backflow devices will be installed in accordance with County of Sacramento Standards.



Abandonment of Backyard Water Mains

After the new water main has been installed and the service line reconnected, the old backyard water main will be sealed and abandoned in place per District standards. All new water lines will be disinfected prior to use per District standards. To avoid a dead end service line, a new hose bib with an 18" riser shall be installed on the customer's existing service line at the point of abandonment.

Some locations throughout the District will require the backyard main to remain in service after the new main is installed in the public right of way. This situation would be observed between the boundary of work from the current area and future area, where only half of the backyard services would be connected to a new main. The other half would be connected to a new main in a future main replacement project, thus requiring the existing backyard main to remain in service. The services that are to be abandoned on an old main that is to remain in service will have the corp stop and saddle removed from the main. A full circle repair clamp will be installed where the corp stop was removed to prevent leaks while the old main remains in service.