

SECTION 5.7 WATER SERVICES AND TEST STATIONS

5.7.1 PURPOSE

The purpose of this section is to provide guidelines for the design of water services and test stations installed on potable and recycled water mains.

5.7.2 STANDARD TERMS AND DEFINITIONS

Wherever technical terms occur in these guidelines or in related documents, the intent and meaning shall be interpreted as described in Standard Terms and Definitions.

The following terms and definitions as found in this section shall have the following meaning:

WS: Water Service Assembly
TS: Test Station Assembly

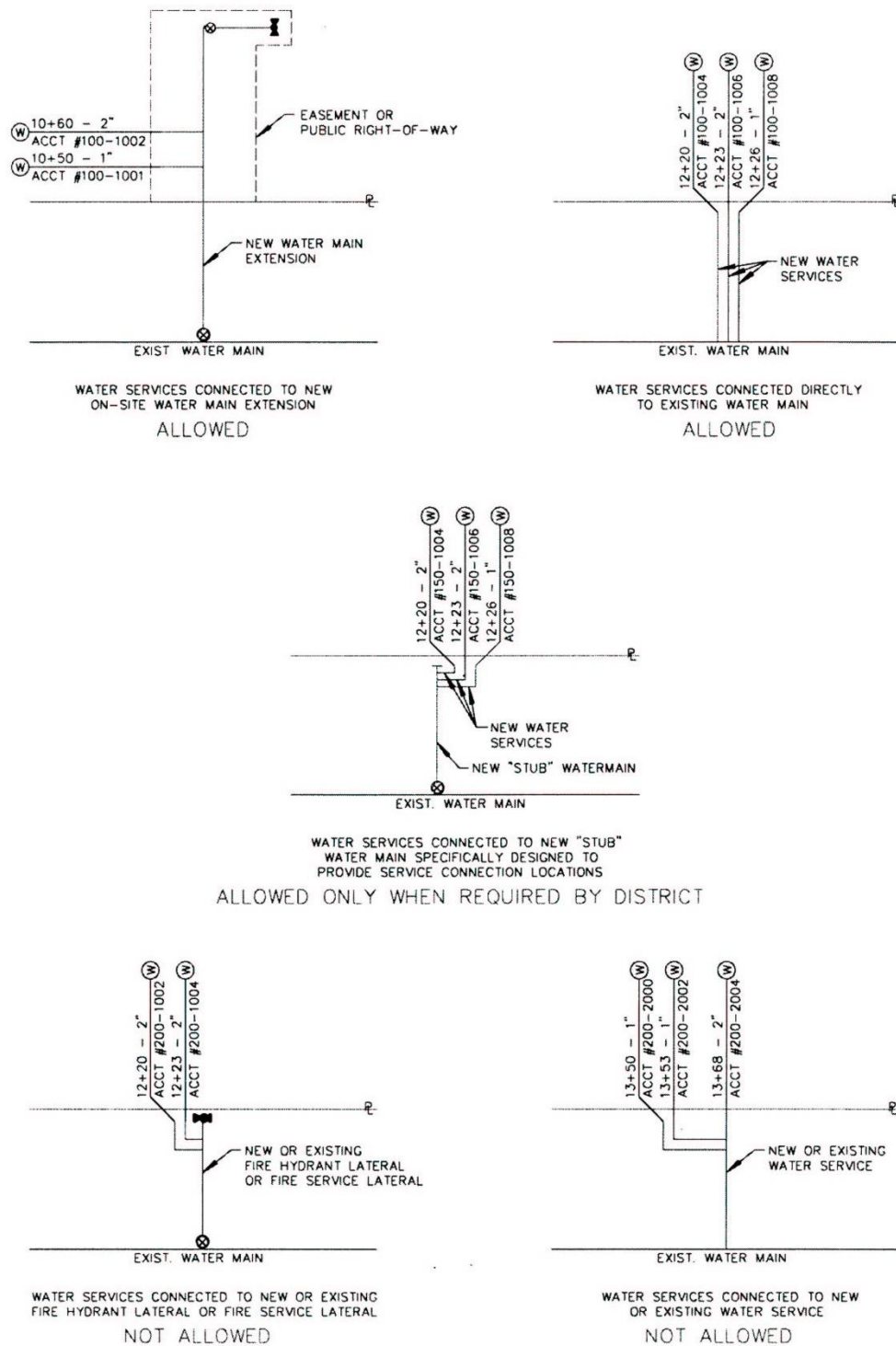
5.7.3 GENERAL

It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document. The Engineer of Work may not deviate from the criteria presented in this section without prior written approval of the District's Engineer.

5.7.4 GUIDELINES FOR WATER SERVICES

Water services supply potable and recycled water to customers for domestic, commercial and irrigation purposes.

- A. Water services shall be connected to water mains within projects where new water mains are required. Within projects where water main extensions are not required, water services are typically connected to existing water mains located in improved public streets or existing easements. Water services shall not be connected to new "stub" water mains specifically designed to provide service connection locations unless specifically required by the District Engineer. Water services shall not be connected to new or existing fire hydrant laterals or fire service laterals. Water services shall not be connected to new or existing water services. Refer to Figure 5.7.1 below.



**Figure 5.7.1
Water Service Limitations**

- B. Water services connected to new and existing pipelines shall be installed by Contractor unless otherwise directed by the District Engineer. All meter installations shall be performed by District. Costs for District work and for other applicable fees shall be Administrative Code Article 160. All applicable fees or deposits shall be paid prior to commencement of any District work.

- C. Water services shall be installed perpendicular to new or existing pipelines, and shall be located to minimize the distance between the service saddle and the meter box. Horizontal bends or curves in water services are not allowed. Service saddles shall be located a minimum of twenty four inches (24") clear from the ends of all pipe joints or fittings. Service saddles connected to all pipeline types excepting cement-mortar lined and coated (CML&C) steel shall be located a minimum of twenty four inches (24") from other service saddles. Service saddles or welded couplings connected to CML&C steel pipelines may be located closer than twenty four inches (24") apart with the permission of the District Engineer.
- D. Water services and meter boxes shall be installed within public rights-of-way or within easements specifically granted to District. All piping located on the customer side of the meter box is considered private plumbing and shall be installed and maintained by the property owner. In locations where private plumbing must be installed within adjacent parcel(s) of property, easement(s) shall be dedicated to the parcel benefiting from the service, and a copy of the recorded easement document(s) must be submitted to District for review prior to the installation of the water service. Such easement(s) are required even if all parcels involved share common ownership. Refer to Section 1.5 for additional information regarding easements.
- E. Installation of a single water service to supply two (2) or more parcels of property is not allowed. If a parcel of property is subdivided or otherwise split, new water service(s) are required for each new parcel created. Individual parcels of property that contain more than one (1) business or dwelling unit such as business parks and apartments may be served by multiple water services. Commercial sites must have separate irrigation meters.
- F. The Uniform Plumbing Code specifies that pressure regulators be installed in areas where the maximum line pressure is eighty (80) pounds per square inch (psi) or greater at the meter. Pressure regulators shall be located within the private plumbing system, and shall be installed by Contractor and maintained by the property owner. Designers or contractors shall consult with District to determine the maximum line pressure supplied at individual services.
- G. Where existing water mains are to be replaced, no new water services shall be installed to provide potential future service(s) to vacant property unless specific development plans have been submitted to the District and all required fees have been paid.

Where existing water mains are to be replaced, existing unused services shall not be connected to new water mains without the specific direction of the District Engineer. When existing unused service connections are so eliminated, District policy shall determine whether credit for capacity fees or construction costs shall be granted when and if future service is requested.

- H. Backflow prevention devices will be additionally required in accordance with the requirements of Section 2.2.
- I. Recycled water services are subject to additional requirements in accordance with Section 2.5.
- J. Reconnections: When a water main is replaced by a parallel main or when the main is replaced in place, the water service can be replaced in its original location. Reconnection to existing water service lateral from new water main shall be in accordance with water service Standard Drawing. Age, condition and type of materials of existing water service lateral will also dictate the need for replacement that is established by the District Engineer.

5.7.5 THREE QUARTER AND ONE INCH (3/4" AND 1") DOMESTIC WATER AND FIRE SERVICE

- A. The three quarter and one inch water services shall be used in typical residential single unit situations. The District does not allow for master metering installations, all single dwelling units shall be individually metered through the District.
- B. The domestic water and fire service shall follow standard drawing W-3A, it is served from a common 1" copper service lateral that supplies both the 3/4" domestic meter and 1" fire meter. A backflow device will be installed on each meter by the District as part of the meter install. Refer to Administrative Code Article 160 for applicable fees.
- C. A typical multi-unit development will be required to install the full service per W-3A as part of the project, with the District performing the meter drop in only. Full installs for single unit or meter relocations can be performed by the District at the full install cost, subject to staffing availability.
- D. Backflow devices are installed and provided by the District as part the meter setting process, once installed the devices are privately owned by the homeowner and it is their responsibility to protect and maintain them in good working order. The District provides the annual testing included as part of monthly water service charge, refer to Article 160 for more detail.

5.7.6 NON RESIDENTIAL DOMESTIC AND IRRIGATION WATER SERVICES ONE INCH (1") AND LARGER

- A. Water services for commercial, non-residential applications shall follow Standard Drawings W-3, W-4, and W-5. The Engineer of Work shall submit detailed calculations to the District Engineer showing the water demand(s) required and justifying the water service requested. Irrigation shall be supplied through a separate meter from domestic use, and similarly the Engineer of Work shall supply calculations to justify the size. Refer to Article 160 for applicable fees.
- B. District will provide applicable backflow devices and annual testing, property owner will own and maintain the device.

5.7.7 NON RESIDENTIAL PRIVATE FIRE SERVICE

- A. Domestic water service for non-residential fire service shall follow Standard Drawing W-4 and W-8. The Engineer of Work shall submit detailed calculations to the District Engineer showing the water demand(s) required and justifying the water service requested.
- B. The developer or property owner shall provide, maintain, and perform annual testing of the fire detector assembly. The assembly shall meet applicable guidelines of these Standards.
- C. Once installed and accepted District shall maintain the service up to the first elbow as specified in W-8, beyond that point is the responsibility of the property owner. The private system beyond the assembly including fire hydrants is governed by the respective agency, either County or jurisdictional Fire Department, Refer to section 2.2.6. The District is not responsible for any portions of the private fire system.

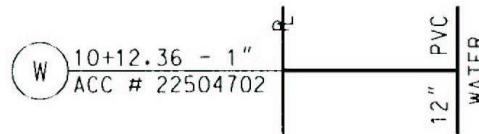
5.7.8 GUIDELINES FOR WATER TEST STATIONS

Water Agencies are required to sample potable water and perform analytical tests for conformance to water quality standards. Test stations provide locations for District personnel to collect water for testing purposes. The installation of one or more water test stations may be required in conjunction with private developments. The number and location(s) of test stations required shall be as directed by the District Engineer. When so required, test stations shall be designed in accordance with Standard Drawings W-35.

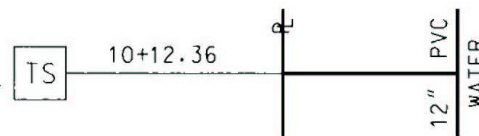
5.7.9 NOTATIONS ON PLANS

Laterals shall be shown in the plan view portion of the sheet(s) only and shall include, but not be limited to, the following information:

- A. Standard symbols, stationing and plan callout notes in accordance with Section 1.1.
- B. Stationing of the water lateral and test stations, at the connection to the water main.
- C. Size of water lateral.
- D. Account number (if applicable).
- E. Refer to Figures 5.7.2 and 5.7.3 below.



**Figure 5.7.2
Water Lateral**



**Figure 5.7.3
Water Test Station**

5.7.10 MATERIAL SELECTION

Water laterals, test stations and appurtenant components to be used with the installation of water systems shall be in accordance with Standard Specification Section 15057 and the Approved Materials List.

5.7.11 REFERENCES

Should the reader have any suggestions or questions concerning the material in this section, contact the District Engineer.

The publications listed below form a part of this section to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said publications unless otherwise called for. The following list of publications, as directly referenced within the body of this document, has been provided for the user's convenience. It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document.

1. Valley Center Municipal Water District Standards:

A. Design Guidelines

- i. Section 1.1, Drafting Guidelines
- ii. Section 1.5, Easements and Encroachments
- iii. Section 2.2, Development Plan and Permit Processing Procedures
- iv. Section 2.5, Recycled Water Facility Guidelines
- v. Section 5.4, Fire Hydrants and Fire Services

B. Standard Specifications

- i. Section 15057, Copper Tubing, Brass and Bronze Pipe Fittings.

C. Standard Drawings

- i. W-3 and W-3A
- ii. W-4, W-5, W-6
- iii. W-7 and W-8

D. Approved Materials List for Water Facilities

2. Uniform Plumbing Code (UPC)

END OF SECTION