

105 WATER SERVICE INSTALLATION

105.1 APPLICATION

Refer to Section 103.

105.2 GENERAL LOCATION REQUIREMENTS

All service lines shall conform to the following requirements:

- 105.2.1 The water service shall normally be installed perpendicular to the main and tapped in front of the property to be serviced.
- 105.2.2 A clearance of not less than 12" shall be maintained between the service line and any pipe, cable or conduit in the same trench.
- 105.2.3 Service lines shall be buried a minimum of 5' deep unless circumstances prevent the installation at 5'. If a depth of 5' cannot be maintained, appropriate measures shall be taken to prevent the service line from freezing.
- 105.2.4 All residential, domestic and fire demands shall be supplied by a single tap.

105.3 SIZE OF WATER SERVICE LINES

- 105.3.1 New or replacement service lines shall not be less than 1" inside diameter.
- 105.3.2 Commercial, industrial and fire service lines shall be properly sized for the required demand.

105.4 MATERIAL FOR SERVICE PIPING

- 105.4.1 All water service pipes through 2" diameter shall be type 'K' heavy, soft annealed copper, seamless ASTM B88.
- 105.4.2 All pipe larger than 2" shall be ductile iron (DI), cement mortar lined, ANIS 21.50, Class 52 mechanical or push joint or PVC (polyvinyl chloride), AWWA C-900, Class 150 (DR 18) with cast iron outside diameter. Pipe joints shall be elastomeric gasket push-on type joints.

105.5 SERVICE LINE APPURTENANCES

All service lines shall include a curb stop or valve between the water main and the property line. The design of all curb stop and valve boxes shall meet the standards of the Water Utility.

105.5.1 All stop box extensions shall be secured in such a way so that it becomes one permanent pipe, such as welding, Red Loctite or set screws.

105.5.2 Service lines of 2" in diameter or less shall have a curb stop located on public property. The curb stop shall be installed within a stop box.

1) CURB STOP/VALVE STANDARD

A main shut-off on the water supply line for each customer shall be provided on public property in front of the premise served, or another location approved by the Water Utility. The shut-off for existing ¾" service lines and new or existing 1" services shall consist of a curb stop, Ford B-22 Ball Valve or Mueller Oriseal H-15204, ¼ turn for a flared copper service, or approved equal. The shut off for new or existing 1½" and 2" services shall consist of curb stop, Ford B-44 Ball Valve or Mueller Oriseal H-15209, ¼ turn for a compression copper service, or approved equal. The 'T' handle on the curb stop will be parallel with the curb when the water is turned off. When installed the curb stop shall not exceed 6' below the surface of the ground.

2) STOP BOX STANDARD (CURB BOX)

Stop boxes for 1" through 2" water service lines shall be sliding extension type, arch pattern base with stationary stainless steel rod, AY McDonald 5607 and lid 5607-L or approved equal. All stop box installations shall be completed in such a manner that the lid is level with the surrounding surface and does not present a hazard to the public (see Appendix B, Figures B-5, B-6 and B-7). Where the stop box lid is located in concrete/asphalt surface, sleeves shall not be permitted.

3) No union shall be permitted on new copper services 2" or less in diameter between the corporation stop and the curb stop when the distance is less than 100'.

- 4) Curb stop boxes and valve boxes shall be installed so that they will function properly and so that an access to the shut-off device is maintained. Boxes shall be set vertically so the top is flush with the surrounding surface so as not to be a hazard to the public. If conditions change that cause the curb stop to become a hazard to the public it is the customer's responsibility to correct the problem immediately.
- 105.5.3 For services larger than 2" in diameter, the valve between the water main and the property line shall be immediately adjacent to the water main. The gate valve at the main shall open left (counter clockwise) and may serve as the shut off. The valve shall be installed in a roadway box (see Appendix B, Figure B-8).
 - 105.5.4 All valves and roadway boxes shall have the approval of the Water Utility.
 - 105.5.5 There shall be no mechanical coupling located under the house foundation and/or slab.
 - 105.5.6 Curb stop boxes and roadway boxes shall be installed so that they will function properly and so that an access to the shut-off device is maintained.
 - 105.5.7 All service lines shall have a shut-off device or valve inside the building where the service enters the building. There shall be no appurtenances between this valve and the main, other than the curb box or valve as previously described, or when an outside meter is approved (see Appendix B, Figures B-12 and B-15).

105.6 COMMERCIAL COMBINATION SERVICE PIPES

A commercial property requiring a domestic service line and a fire protection service line may be served from a single tap. When a single tap is used, the fire protection service line or combination service line shall extend straight from the public main to the property line. The domestic service line shall 'T' off the fire line or combination service line and have its own shut-off valve located a minimum of 5' outside the building. A domestic service 'T' may not be placed on an existing fire line or combination service main without written permission of the Water Utility.

105.7 MAINTENANCE OF WATER SERVICES

If an existing water service is to be repaired, the materials used for the repair shall be of the type and size specified for new services. If it is determined that half or more of either section of the service, between the main and the curb stop or the curb stop and the building, shall be replaced, then that entire section shall be replaced with materials as approved for new services. Dissimilar metals may not be used in the repair of a service line unless insulators are used.