

DIVISION III
GENERAL CONSTRUCTION REQUIREMENTS

SECTION 35

PRESSURE PIPE CONNECTION

35.1 GENERAL

Installations of pressure connections four (4) inches and larger shall be made in accordance with this Section.

35.2 TAPPING SLEEVES

35.2.1 GENERAL

Tapping sleeves shall be ductile iron mechanical joint sleeves or fabricated stainless steel sleeves as specified below. All pressure connections to asbestos cement pipe and all "size on size" taps shall utilize mechanical joint sleeves.

35.2.2 MECHANICAL JOINT SLEEVES

Sleeves shall be cast of ductile iron and have an outlet flange with the dimensions of the Class 125 flanges shown in ANSI B16.1 properly recessed for tapping valve. Glands shall be ductile iron. Gaskets shall be vulcanized natural or synthetic rubber. Bolts and nuts shall comply with ANSI/AWWA C111/A21.11. Sleeves shall be capable of withstanding a working pressure of 200psi for 4 inch by 4 inch to 12 inch by 12 inch and 150psi for 14 inch by 14 inch to 24 inch by 24 inch.

35.2.3 STAINLESS STEEL TAPPING SLEEVES

Sleeves shall be fabricated of 18-8 Type 304 stainless steel. Outlet flange shall be ASTM A240 18-8 type 304 stainless steel, be properly recessed for the tapping valve, and have a drop in bolt design. Bolts and nuts shall be high strength low alloy steel to AWWA C111 (ANSI A21.11). Gasket shall be vulcanized natural or synthetic rubber compounded for use in water and wastewater systems.

35.2.4 TAPPING VALVES

Tapping valves shall meet the requirements of Section 52.2 except that units shall be flange by mechanical joint ends. Valves shall be compatible with tapping sleeves as specified above and specifically designed for pressure connection operations.

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35.3 NOTIFICATION AND CONNECTION TO EXISTING MAINS

All connections to existing mains shall be made by the CONTRACTOR only after the connection procedure and his work scheduling has been reviewed and approved by the CITY. The CONTRACTOR shall submit a written request to the CITY a minimum of forty eight (48) hours prior to scheduling said connection, unless otherwise agreed upon at a CITY attended pre-construction conference. In his request he shall outline the following:

1. Points of Connection, fittings to be used, and method of flushing and disinfection if applicable.
2. Estimated construction time for said connections.

The CITY shall review the submittal within three (3) working days after receiving it and inform the CONTRACTOR regarding approval or denial of his request. If his request is rejected by the CITY, the CONTRACTOR shall resubmit his request modifying it in a manner acceptable to the CITY.

All connections shall only be made on the agreed upon date and time. If the CONTRACTOR does not initiate and complete the connection work in the agreed upon manner, he shall be required to reschedule the said connection by following the procedure outlined above.

The CONTRACTOR shall not operate any valves in the system.

35.4 INSTALLATION

35.4.1 EXCAVATION, BACKFILL, COMPACTION, AND GRADING

The applicable provisions of Section 32 shall apply.

35.4.2 CONSTRUCTION DETAILS

Sufficient length of main shall be exposed to allow for installation of the tapping sleeve and valve and the operation of the tapping machinery. The main shall be supported on concrete pedestals or bedding rock at sufficient intervals to properly carry its own weight, plus the weight of the tapping sleeve valve and machinery. Any damage to the main due to improper or insufficient supports shall be repaired at the CONTRACTOR'S expense.

The inside of the tapping sleeve and valve, the outside of the main, and the tapping machine shall be cleaned and swabbed or sprayed with 10 percent liquid chlorine prior to beginning installation for water system pressure connections.

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After the tapping sleeve has been mounted on the main, the tapping valve shall be bolted to the outlet flange making a pressure tight connection. Prior to beginning the tapping operation, the sleeve and valve shall be pressure tested at 150psi to ensure that no leakage will occur.

For pressure connections through diameters 12 inches or less, the minimum diameter cut shall be 1/2 inch less than the nominal diameter of the pipe to be attached. For 14 inch through 20 inch installations, the minimum diameter shall be 1-1/2 inch or less; for larger taps the allowable minimum diameter shall be 2 inches to 3 inches less than the nominal diameter of the pipe being attached. After the tapping procedure is complete the CONTRACTOR shall submit the coupon to the CITY.

For pressure connections to wastewater force mains, the tapping valve shall be placed horizontally. After the tapping procedure is complete a plug valve shall be attached to the tapping valve. The tapping valve shall be left in the open position prior to backfilling.

Adequate poured concrete thrust blocks or restrained joint fittings shall be provided to prevent movement of the installation when test pressure is applied. The excavation shall be maintained free of water at all times. Provisions of Section 34 shall apply.

35. 4. 3 TEMPORARY JUMPER CONNECTION

A temporary jumper connection shall be provided by the CONTRACTOR as required by the Florida Department of Environmental Protection when connecting new main to an existing potable water main. See STANDARD DRAWINGS.