STANDARD SPECIFICATION
SECTION 15080 MISCELLANEOUS PIPING SPECIALTIES

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes miscellaneous valves, fittings, piping materials and installation. Testing shall be in accordance with associated facilities.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Standard Drawings.

B. Record Drawings and Submittals: STD SPEC 01300.

C. Cold Applied Wax Tape Coating: STD SPEC 09952.

D. Polyethylene Sheet or Tube Encasement: STD SPEC 09954.

E. Steel Transmission Pipe: STD SPEC 15061.

F. Disinfection of Piping: STD SPEC 15141.

G. Pressure Testing of Piping: STD SPEC 15144.

1.03 SUBMITTALS

A. Submit submittal packages in accordance with Standard Specification Section 01300.

B. Submit manufacturer's catalog data, descriptive literature and assembly drawings. Show dimensions, materials of construction by specification reference and grade, linings and coatings.

PART 2 - MATERIALS

2.01 GENERAL

Valves and miscellaneous components are identified on the Standard Drawings by size and type.

2.02 CORPORATION STOPS - BRONZE, 2 INCHES AND SMALLER

For working pressures from zero to 300 psi, use Ford Ballcorp Type FB1100-x-Q, or District approved equal. Stops shall be bronze (ASTM B 62) with inlet male iron pipe threads and outlet with quick joint for copper water tube. Quick joint shall consist of a threaded nut , an external nut stop, stainless steel gripper ring, and gasket. Gripper rings can only be used once. If the threaded nut of the quick joint is loosen after assembly and the copper water tube removed from the corporation stop, a new gripper ring shall be used in the

reinstallation of the copper water tube and the corporation stop. Compression or pack joints will not be allowed.

2.03 BALL VALVES - BRONZE, 2 INCHES AND SMALLER

A. For 1-inch and 2-inch valves with working pressures from zero to 300 psi, use Ford Ball Valve Curb Stop B11, James Jones J-1905, or District approved equal. Valves shall be bronze (ASTM B 62) with both ends female iron pipe threads and full port. Provide brass handles, use Ford HB-34 and HB-67S, James Jones, or District approved equal.

B. For 1/2-inch valves with working pressures from zero to 600 psi, use NIBCO T-580-BR, Stockham S-216-BR-R-T, or District approved equal. Valves shall have threaded ends, two piece bronze body, standard port, bronze trim, chrome plated ball, and blowout proof stem. Use a lever handle for non-buried installations and a tee handle for buried installations.

2.04 ANGLE VALVES - BRONZE, 2 INCHES AND SMALLER

For working pressures from zero to 300 psi, use NIBCO T-335Y, Stockham B-222T, or District approved equal. Valves shall be bronze (ASTM B 62), union bonnet, angle design, 300 psi WOG rated with both ends female iron pipe threads.

2.05 ANGLE VALVES - BRONZE HYDRANT HEAD

For working pressures from zero to 300 psi, use James Jones J-344 H.P. or District approved equal. Valves shall be bronze (ASTM B 62) with 4-inch inlet female iron pipe threads and 2-1/2-inch outlet male national standard hose threads with cap and chain.

2.06 INSULATING COUPLINGS

For working pressures from zero to 300 psi, use insulating couplings to avoid galvanic or electrolytic corrosion wherever dissimilar metals are connected. Couplings shall be steel; lined with an inert, non-conductive, linen impregnated laminate material; both ends female iron pipe threads; and rated to 300 psi working pressure at 225°F. Exterior surface of coupling is uncoated, bare steel. Couplings shall be Lochinvar V-Line as supplied by Corrosion Control Products Company or District approved equal.

2.07 SERVICE SADDLES - BRONZE, 2 INCHES AND SMALLER

A. Perform wet taps on existing asbestos cement pipe, ductile iron pipe, and PVC pressure pipe with working pressures 200 psi or less. Provide service saddles that have been specifically designed to fit the type, size, and class of pipe of the installation.

B. Provide service saddles with full width, cast bronze bodies conforming to ASTM B 62, O-ring gaskets, and iron pipe threads. Provide Type 304 stainless steel double band straps with four bolts or a single wide strap with four bolts. All stainless steel shall be fully passivated for enhanced corrosion resistance. Use tapping machines and cutting tools that have been specifically designed for the type of pipe to be drilled.

C. Service saddles for use on existing pipe with working pressures 200 psi or less shall be Ford Style 202BS, Romac Industries Style 202BS, or District approved equal.

2.08 TAPPING SLEEVES

A. Perform wet taps on existing asbestos cement pipe, ductile iron pipe, and PVC pressure pipe with working pressures 150 psi or less. Provide tapping sleeves that have been specifically designed to fit the type, size and class of pipe of the installation.

B. Tapping sleeves shall be of Type 304 stainless steel construction with two half sleeves and flanged outlet. Sleeve halves shall be bolted together with stainless steel bolts and nuts. Gaskets shall completely surround the pipe to be tapped and be the same length as the sleeves. Gaskets shall be SBR conforming to ASTM D 2000. Flanged outlet shall be flat faced conforming to ANSI B16.5, Class 150. Use tapping machines and cutting tools that have been specifically designed for the type of pipe to be tapped.

C. Tapping sleeves for use on pipe with working pressures 150 psi or less shall be Ford Stainless Tapping Sleeve Style FTSS, Romac Industries FTS420, Smith-Blair 665 Stainless Steel Tapping Sleeve, or District approved equal.

2.09 WELD-ON OUTLETS

A. Perform dry taps on existing welded steel pipe unless the District cannot take the pipeline out of service. Prior to making the tap, submit to the District's Representative a letter outlining the procedures to be followed.

B. Use a manufactured steel wrapper plate, outlet pipe, and flange. Cement mortar line the outlet pipe prior to the installation and cement mortar coat the wrapper and outlet pipe after welding to the existing steel pipe. Provide weld-on outlets that conform to the applicable requirements of Standard Specification Section 15061.

PART 3 - EXECUTION

3.01 INSTALLATION

Installation shall be in accordance with manufacturer's recommendations. Tightening of nuts, bolts, screws, flanges shall be accomplished so that zero leakage is obtained.

A. Clean threaded joints by wire brushing or swabbing. Apply Teflon joint compound or Teflon tape to pipe threads before installing screwed valves.

B. Lubricate bolt threads with oil or graphite prior to installation.

C. Tighten nuts uniformly and progressively.

D. After testing, coat exposed surfaces of bolts and nuts to be buried with primer for wax tape coating per Standard Specification Section 09952.

E. Wrap buried ferrous fittings and appurtenances with polyethylene material per Standard Specification Section 09954.

3.02 PRESSURE TESTING

Test miscellaneous piping specialties at the same time that the connecting pipelines are pressure tested. See Standard Specification Section 15144 for pressure testing requirements. Repair leaks in piping and retest.

3.03 DISINFECTION

See Standard Specification Section 15141 for chlorination requirements.

END OF SECTION