

SECTION 15075
AERIAL CROSSING

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, material, equipment, and appurtenances required to perform complete aerial crossing as shown on the Plans.
- B. All construction of aerial crossing shall be in accordance with all requirements of the permitting agency or company having jurisdiction over the work area, and as approved by the Department.

1.02 RELATED SECTIONS

- A. Section 15060 - Piping and Fittings
- B. Section UC-090 - Piling for Aerial Crossing
- C. Section 09900 - Painting (Short)

1.03 SUBMITTALS

- A. All steel pipe shall be furnished with an Affidavit of Compliance certifying that the pipe complies with the requirements specified herein and AWWA Standard C200. No project containing the pipe described below will be accepted until such certificates have been submitted to and approved by the Engineer.

1.04 QUALITY ASSURANCE

- A. The Contractor shall assume all responsibilities for its permittee while complying with all permit requirements and those imposed by governing authority having jurisdiction over their work. The Department reserves the right to enforce any and all requirements.

PART 2 - PRODUCTS

2.01 STEEL PIPE FOR AERIAL CROSSING AND PIPE GUARDS

- A. Steel pipe for the aerial crossing shall be of the size and wall thickness shown on the Plans, and shall be furnished in shop-finished lengths, as indicated on the Plans, to effect the crossing. In all cases, the wall thickness shall be at least ½-inch thick.
- B. Pipe shall be black seamless steel pipe meeting the requirements of AWWA Standard C200, "Steel Water Pipe 6 In. and Larger", for pipe manufactured per ASTM Standard A53, "Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless", Grades A or B.

- C. All steel pipe shall have pipe ends beveled for field butt welding. Steel hub (slip-on) welding type flanges shall be welded to the pipe by the manufacturer where shown on the Plans. The flanges shall be welded to the straight run of steel pipe.
- D. Install pipe guards, see Miami-Dade Water and Sewer Department Standard Detail GS 1.4.

2.02 FLANGES

- A. Flanges shall conform to and shall be installed in accordance with AWWA Standard C207, "Steel Pipe Flanges for Waterworks Service-Sizes 4 In. Through 144 In.", for Class E. flanges.
- B. The flanges shall have the same drillings and diameters as ANSI Specification B16.1 for Class 125 cast iron flanges, and shall be compatible with the flanges on the abutting pipe or fitting.
- C. After welding, the face of the flanges shall be in a plane normal to the centerline of the pipe. Flange joint materials shall be ANSI sized and approved and shall consist of hot-dip galvanized carbon steel bolts and nuts, and 1/8-inch thick full-faced neoprene gaskets.
- D. A AWWA-thread outlet shall be installed at the location shown on the Plans to receive the air release device.

2.03 PILING, PILE CAP AND REFLECTIVE DEVICES

See Section UC-090, "Piling for Aerial Crossing".

PART 3 - EXECUTION

3.01 GENERAL

Installation shall be in accordance with all permit requirements, provisions imposed by authority having jurisdiction over work, these Specifications and applicable installation requirements of Section 15060, "Piping and Fittings" and Section UC-090, "Piling for Aerial Crossing".

3.02 MECHANICAL WORK

- A. The mechanical work shall be performed by qualified craftsmen with previous experience in similar installations. All materials and equipment shall be installed in strict accordance with the Plans and Specifications, with the installation instructions and drawings furnished by the manufacturers, and with all applicable codes.
- B. All welding done under this Project shall be performed by operators who are certified by a testing laboratory approved by the Miami-Dade County Building and Zoning Department as qualified to weld downhand and overhead. The Contractor shall furnish proof that his welders are so qualified. Adjacent lengths of steel pipe shall be welded together throughout the circumference of the pipe and the welding shall be performed in accordance with AWWA Standard C206, "Field Welding of Steel Water Pipe". All welding shall be by electric arc with current furnished by an engine-driven generator. The use of motor-driven generators will be permitted if the Contractor furnishes the necessary electric power.

- C. In the event that false bents are used to support the steel pipe across the canal during installation, they shall be removed upon completion of the work. Two layers of 30-pound roofing felt shall be attached to the pipe with wire. Prior to the pouring of the saddle supports, forms shall be erected upon which the wrapped pipe shall rest until the support is poured and cured. Then the excess shall be trimmed off leaving only that portion between the concrete saddle and the pipe.

3.03 PAINTING

- A. Painting and testing shall be performed prior to connecting any other pipe or fitting to the extreme end flanges on the steel pipe as specified in "Painting of Aerial Crossings" of Section 09900.
- B. Steel pipe for water main shall be thoroughly cleaned by pickling or sandblasting and then primed on the exterior with one coat of Carboline Rustbond Penetrating Sealer SG, or approved equal. Prime coat shall have minimum dry film thickness of at least 2.0 mils. The exterior shall then be painted with two coats of Pratt & Lambert Endu-thane High Build Urethane, or approved equal, Cyanine Blue (Carboline, i.e. Kop-Coat, Color No. 2127) in color, with each coat having a dry film coat thickness of 4 - 6 mils. The interior shall be shop painted with two coats of Kop-Coat Hi-Gard 891, white 1898 and Red 0500, first and second coats respectively, approximately 5.0 mils thick each.
- C. Steel pipe for force main shall be thoroughly cleaned by pickling or sandblasting and then primed on the exterior with one coat of Carboline Rustbond Penetrating Sealer SG, or approved equal. Prime coat shall have minimum dry film thickness of at least 2.0 mils. The exterior shall then be painted with two coats of Pratt & Lambert Endu-thane High Build Urethane, or approved equal, Eye-Rest Green (Carboline, i.e. Kop-Coat, Color No. 2369) in color, with each coat having a dry film coat thickness of 4 - 6 mils. The interior shall be shop painted with two coats of Kop-Coat Bitumastic 300M, or approved equal, 6 - 8 mils dry film thickness per coat. Each interior coat shall have a different color, either red or black.
- D. See "Painting of Aerial Crossings" of Section 09900, for additional painting and testing requirements.

END OF SECTION