

SECTION 01581**SUB-AQUEOUS PIPELINE CROSSING SIGNAGE****PART 1 GENERAL**

1.01 SCOPE OF WORK

- A. The WORK under this section includes providing all labor, materials, tools and equipment necessary for removing, installing and maintaining warning sign assemblies as shown on Standard Detail Drawing No. GS 4.0.

1.02 SYSTEM DESCRIPTION

- A. Sign Construction: Warning identification signs shall be constructed of new materials. Construct post mounted signs as shown on Public Works Standard Detail R-18.1.
- B. Appearance: Warning identification signs shall be maintained to present a clean and neat appearance.
- C. Sign will be fabricated by WASD Maintenance Department and installed by WASD forces.
- D. Signage Type:
1. Wall Mounted Sign
 2. Post-mounted Sign
 3. "Stake" Sign
- E. Sign Placement: Placement of sign shall be determined by the Engineer. Type of sign will depend on location and surrounding landscape plant types. In all cases sign shall be clearly visible to the public.

PART 2 PRODUCTS

2.01 SIGN MATERIALS

- A. Structure and Framing: All sign materials shall be new.
1. Sign Post: The sign post shall be 2-3/8" OD , seamless, extruded, schedule 80 aluminum pipe. Post shall be 6061-T6 and conform to ASTM B429. Post shall have a mill finish.
 2. Sign: Sign material shall be of 14 Gauge Anodized Aluminum. Background of sign shall be white (reclaimed waterlines shall be Pantone Purple 522C).
 3. Reflective Sheeting: Engineering reflective material shall be used. Reflective sheeting shall be in conformance with the U.S. Department of Transportation, Federal Highway Administration Standard Specifications of

Roads and Bridges on Federal Highway Projects, Section 633.06, Sheet Reflective Materials. The material shall be Type 3 encapsulated Lens Sheeting.

4. Concrete: The concrete utilized for the post installation shall be class I, having a minimum compressive strength of 2,500 psi at 28 days.

2.02 SIGN LAYOUT

A. Lettering:

1. Style, Size and Spacing: Prepare the sign using uppercase black Helvetica, Swiss 721 Corel or approved equal with the exception of the word "WARNING" that shall be in red reflective paint material.
2. Condensed Style: Lettering for variable text may be condensed if needed to maintain sign composition.

PART 3 EXECUTION

3.01 FABRICATION:

- A. The fabrication shall be of materials and workmanship which will present a pleasing appearance. The finished posts shall be straight and have a smooth uniform finish free from defects affecting strength, durability or appearance. Bolt holes shall be punched on centerline and spaced both horizontally and vertically as shown on Standard Detail R-18.1. All holes and sheared ends shall be commercially free from burrs.
- B. Size of signage shall be 48-inch by 38-inch as shown on Standard Detail No. GS 4.0.

3.02 INSTALLATION:

- A. Erect signs where designated by the Engineer. Position the sign in such a manner as to be fully visible and readable to the general public.
- B. Mounting hardware shall be type 316 stainless steel or aluminum.
- C. Installations shall be made in accord with Standard Detail R-18.1.
- D. The Concrete utilized for the post installation shall be Class I, having a minimum compressive strength of 2,500 psi at 28 days, conforming to the requirements of Section 345 of the current edition of the Florida Department of Transportation's Standard Specifications for Road and Bridge Construction. No concrete shall be left on the aluminum post and the area of the installation shall be clean and appear as neat as possible to its original condition. Sidewalk flags must be repaired so that there are no bumps or depressions and appear as a part of the flag. If sod is removed in any appreciable area, it shall also be replaced.

- E. Erect Sign plumb and level.
- F. Erect post-mounted sign so that top of edge of the sign is at a nominal 7 feet above existing grade.

3.03 MAINTENANCE AND REPAIR

- A. Keep signs and supports clean. Repair deterioration and damage.

END OF SECTION