SECTION 13310

STEEL ENCASEMENT PIPE

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplementary Conditions (if included), and Division 1 Specifications Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Steel encasement pipe.

1.03 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Steel Encasement Pipe: By the price per linear foot for steel encasement pipe of sizes included in the Bid items, including the cost of necessary inspections, insurance, etc. required by governing authority. Includes steel encasement pipe, installed complete, except for portions of Work for which separate payment is made under this or other Sections.
- B. Upon installation, an amount equal to at least 3 percent of the price bid per linear foot will be withheld for completion of testing. Individual circumstances shall determine whether an amount in excess of the percentage indicated will be withheld. When items for which monies are withheld are completed, or partially completed, the amount withheld shall be appropriately reduced. Amounts withheld pursuant to this paragraph shall be in addition to retainage made pursuant to applicable requirements of the Contract Documents.

1.04 REGULATORY REQUIREMENTS

- A. OWNER will secure necessary permits. Work not to begin before permit is issued.
- B. CONTRACTOR responsible for meeting the requirements of the governing authority, which may include approval of equipment to be used for installation of the encasement pipe, and for notifying the governing authority prior to start of Work.
- C. OWNER and ENGINEER shall not be responsible for additional cost to CONTRACTOR for failure to meet governing authority's requirements.

PART 2 PRODUCTS

2.01 STEEL ENCASEMENT PIPE

- A. Comply with ASTM A139, Grade B.
- B. Minimum Tensile Strength: 60,000 psi.
- C. Minimum Yield Strength: 35,000 psi.
- D. Wall Thickness: Minimum 0.375 inch
- E. Exterior Coating: Bituminous.
- F. Joints: Fully welded on circumference.

2.02 PIPE BLOCKING AND FILL

- A. Pipe blocking must be done with casing spacers, with a maximum of 1 inch between blocking and steel encasement pipe wall.
- B. Casing Spacers:
 - 1. Manufacturers:
 - a. Power Seal Pipeline Products Corporation.
 - b. Cascade Waterworks Manufacturing Company.
 - c. Advance Products & Systems, Inc.
 - d. Or as approved.
 - Materials: Polyethylene or stainless steel with a liner and UHMW polymer plastic runners.
- C. End Seals: Wrap around type with sealed joint.
 - Manufacturers:
 - a. Advance Products & Systems, Inc, Model AW
 - b. Cascade Waterworks Manufacturing Company, Style CCES.
 - c. Or as approved.
 - 2. Materials: Synthetic rubber seal and Type T-304 stainless steel bands.

PART 3 EXECUTION

3.01 PREPARATION

- A. Apply exterior coating a minimum of 48 hours prior to pipe installation.
- B. Notify governing authority.

3.02 INSTALLATION

- A. Install encasement pipe by boring and jacking, with a minimum 4 feet of cover, except at railroads where cover shall be minimum 5.5 feet. A minimum distance of 5 feet from the edge of pavement is required.
- B. Excavate bore pit and receiving pit; follow Section 02215. Shore as required by Laws and Regulations.
- C. Boring operations shall be continuous; boring auger never to be more than 1 inch ahead of casing pipe during boring operations.
- D. Block pipe in place within encasement pipe to prevent shifting or flotation and maintain proposed grade.
- E. Provide end seals; one at each end of encasement pipe.
- F. Backfill pits; follow Section 02220.

END OF SECTION