

## **SECTION 3150 - PROFILE WALL POLYPROPYLENE GRAVITY SEWER PIPE**

### **PART 1 - GENERAL**

#### **1.1 SCOPE OF WORK:**

Provide all labor, materials, equipment and services required for furnishing and installing all piping and appurtenances specified herein.

#### **1.2 RELATED WORK SPECIFIED ELSEWHERE:**

- A. Trench Excavation: Section 3720
- B. Bedding and Backfill: Section 3730

### **PART 2 - PRODUCTS**

#### **2.1 PROFILE WALL POLYPROPYLENE NON-PRESSURE PIPE:**

- A. Profile wall Polypropylene sewer pipe may be used for sewers 18" diameter and larger. No profile wall pipe smaller than 18" will be allowed. Pipe 18" diameter and larger, but smaller than 30" diameter, shall meet ASTM F2736. Pipe 30" diameter and larger shall meet ASTM F2764. Virgin material for polypropylene sewer pipe and fittings shall be impact modified copolymer meeting the requirements of ASTM D4101. All pipe shall have a pipe stiffness of at least 46 pii when tested in accordance with ASTM D2412. All pipe shall have ASTM D3212 and F477 integral bell and spigot rubber double-gasketed joints. Gasketed fittings shall conform to the same specifications and be supplied with the pipe. No profile wall sewer shall exceed 16 feet in depth unless approved by the OWNER.
- B. All pipe shall be suitable for use as a gravity sewer conduit. All pipe spigots shall have a "Home" mark to facilitate joint closure.
- C. A manufacturer's certificate that the polypropylene material and pipe was manufactured and tested in accordance with the appropriate ASTM specification shall be furnished to the ENGINEER prior to installation of the pipe.
- D. Pipe intended to be straight shall have a maximum deviation from straightness of 1/16 inch per linear foot when measured in accordance with ASTM D2122.
- E. All pipe and fittings will be inspected by the ENGINEER or his authorized representative immediately prior to installation and all rejected pieces must be completely removed from the project. Pipe acceptable to the ENGINEER shall be substituted for rejected pieces at the CONTRACTOR's expense. No repaired pipe or fittings will be allowed; undamaged lengths of straight pipe may be salvaged by neatly sawing off the damaged portion of the pipe.
- F. Pipe must be delivered to the job site by means that will adequately support it and not subject it to undue stresses. In particular, the load shall be so supported that the bottom rows of pipe are not damaged by crushing. Pipe shall be unloaded carefully and strung or stored as close to the final point of placement as a practical. Pipe must not be exposed to the direct rays of the sun for an extended period of time. If pipe is not to be installed shortly after delivery to the job site, it must be stored in shaded location and strung as needed.
- G. All polypropylene pipe shall be tested for deflection as described in Section 3820 and air tested for leakage as described in Section 3810.

#### **2.2 PIPE JOINTS:**

Polypropylene sewer pipe joints shall be elastomerically gasketed conforming to ASTM D3212 integral bell and spigot type. The bell shall be reinforced with a polymer composite band. The spigot shall have two gaskets, installed by the pipe manufacturer, meeting the requirements of ASTM F477. The CONTRACTOR shall furnish evidence of satisfactory performance of the joint for previous installations.

- A. Testing of polypropylene sewer pipe joints, when so directed by the ENGINEER, shall be ASTM D3212 for gasketed joints, with modification as specified below. All equipment necessary to conduct the pipe joint test shall be provided by the CONTRACTOR.
- B. Test Specimens - The ENGINEER or his authorized representative may initially and periodically select random sewer pipe for test purposes. The tests shall be performed on not less than two specimens and not more than 1 percent of the total pipe length of each size and joint type required for the project.

### **2.3 MANUFACTURERS:**

Approved manufacturers of profile wall sewer pipe are ADS, Inc (Sanitite HP) or approved equal.

### **PART 3 - BASIS OF PAYMENT**

Payment for PVC gravity sewer lines of the different sizes at the various depths of cut will be made at the contract unit price per linear foot in place, which price will include compensation for furnishing pipe, all trenching (including rock excavation), bedding, laying, jointing, testing, backfilling, surface restoration (except pavement replacement) connections to new manholes, and all plugs as required. The depth of cut to be paid for shall be measured from the existing ground surface at the top of the trench to the invert of the sewer line. The quantity of sewer to be paid for shall be the length of pipe measured along the centerline of the completed pipeline without deducting the length of branches, fittings and manhole inverts. Connections of existing sewers to new sewers will be incidental to this pay item.

END OF SECTION