

ITEM 010183

Item 0101831 - 12" CORRUGATED POLYETHYLENE PIPE

Item 0101832 - 12" PERFORATED CORRUGATED POLYETHYLENE PIPE WITH FABRIC

Item 0101833 - 15" CORRUGATED POLYETHYLENE PIPE

Item 0101834 - 15" PERFORATED CORRUGATED POLYETHYLENE PIPE WITH FABRIC

Item 0101835 - 18" CORRUGATED POLYETHYLENE PIPE

Item 0101836 - 18" PERFORATED CORRUGATED POLYETHYLENE PIPE WITH FABRIC

Item 0101837 - 24" CORRUGATED POLYETHYLENE PIPE

Item 0101838 - 24" PERFORATED CORRUGATED POLYETHYLENE PIPE WITH FABRIC

DESCRIPTION

Work under this item shall consist of furnishing and installing High Density Corrugated or Perforated Polyethylene Pipe (HDPP) with filter fabric as required or called for on the plans to line and grade, connecting from catch basin to existing/proposed catch basin and furnishing and replacing new material under and around the pipe, and above the pipe as stated below.

REFERENCED ITEMS

Item 0100801, 0103501

REQUIRED SUBMITTALS

Certified Test Report:

Submit 5 copies of certified test reports for HDPP in accordance with the contract general requirements.

MATERIALS

Pipe and fitting material shall be high-density polyethylene meeting the requirements of ASTM D-3350-02 Cell Classification 324420C; or ASTM D-1248-04 Type III, Class C, Category 4, Grade P33. Pipe shall meet the requirements of AASHTO M294-04 Type S. The pipe shall have a smooth interior and annular-corrugates exterior. Manning's "n" value for design shall not exceed 0.010.

Filter fabric shall meet the material requirements of ASSHTO M288-00.

Fittings shall conform to AASHTO M294-04. Fabricated fitting shall be welded on the interior and exterior at all junctions.

Pipe shall be joined with bell-and-spigot joint meeting the requirements of AASHTO M294-04. The bell shall be an integral part of the pipe and provide a minimum pull-apart strength of 397 lb. The bell-and-spigot joint shall incorporate a gasket making it silt-tight. Gaskets shall be installed in the bell by the pipe manufacturer.

Bedding material shall be 3/4" crushed stone meeting the material requirements of item 0100801.

CONSTRUCTION METHODS

Installation shall be in accordance with ASTM D-2321-00 with the exception that the minimum cover in trafficked areas shall be 24".

Excavation shall include all trench work; digging and bracing as necessary, support of other utilities crossed, removal and disposal of surplus material, crushed traprock foundation, placement of the utility detection tape, backfill, etc. Excavation shall be at least 6" below bottom of pipe.

Foundation shall consist of at least 6" of 3/4" crushed stone placed as foundation to the bottom of the pipe. Crushed traprock shall consist of sound, tough, durable crushed particles, clean and free from dust, clay, loam or other foreign stone such as brownstone or clay and of gradation.

Square Mesh Sieve Size	Percent by Weight
1"	100
3/4"	90-100
1/2"	20-50
3/8"	0-20
#4	0-5

Crushed stone shall be placed around and 24" above the pipe.

The Contractor shall be required to backfill the remainder of the trench with bank run gravel conforming to the requirements of Item 0103501 to the proposed subgrade elevation. No additional payment for bank run gravel will be made, and the cost of furnishing and placing bank run gravel shall be included in the linear foot price for pipe.

The backfill material shall be compacted in lifts no to exceed 12". Water shall be applied during compaction to obtain proper results. Compaction shall be continued until the voids in the material have been reduced to a minimum and until the course is thoroughly compacted to firm and uniform surface satisfactory to the Engineer. The compaction of each layer shall be at least 97 percent of the maximum dry density as obtained by the AASHTO Test T-180-01, Method D.

METHOD OF MEASUREMENT

This work will be measured for payment by total number of feet of high-density polyethylene pipe installed including excavation and new gravel backfill, complete and accepted.

BASIS OF PAYMENT

These items will be paid for the contract unit price per linear foot of "(SIZE) (TYPE) POLYETHYLENE PIPE", complete in place, in which price will include all materials including new backfill, fabric, and disposal of unsuitable materials, tools, equipment and labor incidental thereto.

<u>PAY ITEM</u>	<u>DESCRIPTION</u>	<u>PAY UNIT</u>
0101831	12" Corrugated Polyethylene Pipe	LF
0101832	12" Perforated Corrugated Polyethylene Pipe With Fabric	LF
0101833	15" Corrugated Polyethylene Pipe	LF
0101834	15" Perforated Corrugated Polyethylene Pipe With Fabric	LF
0101835	18" Corrugated Polyethylene Pipe	LF
0101836	18" Perforated Corrugated Polyethylene Pipe With Fabric	LF
0101837	24" Corrugated Polyethylene Pipe	LF
0101838	24" Perforated Corrugated Polyethylene Pipe With Fabric	LF