

SECTION 273 TEMPORARY SEDIMENT BASIN OUTLET

STRUCTURE, CORRUGATED METAL

273.01 Description. This work consists of furnishing, fabricating, and constructing a corrugated metal sediment-basin outlet structure at the locations shown on the Plans and as directed by the Engineer. The structure will include riser pipe, principal spillway pipe, trash racks, outlet drains, sediment filters and any anti-seep collar as shown on the Plans.

MATERIALS.

273.02 Borrow. Borrow for backfill shall be Clay Borrow, Type 1 and conform to the requirements of [Subsection 274.02](#).

273.03 Concrete. Concrete shall be Class C and conform to the requirements of [Section 812](#).

273.04 Geotextile. Geotextile shall conform to the requirements of [Section 827](#).

273.05 Stone. Stone shall be Delaware No. 57 and conform to the requirements of [Section 813](#).

273.06 Corrugated Metal. Corrugated metal pipe, anti-seep collars, base metal, and fabrication of all pipes and assemblies shall conform to the requirements of [Section 614](#). Minimum steel plate corrugations shall be 2 2/3 by 2" (68 by 13 mm). Minimum thickness of corrugated metal shall be 15 gage (1.83 mm) except that base plates shall have a minimum thickness of 3" (6 mm).

273.07 Seed. Seed shall conform to the requirements of [Section 734](#).

273.08 Mulch. Mulch shall conform to the requirements of [Section 735](#).

CONSTRUCTION METHODS.

273.09 Excavation. The Contractor shall excavate for the sediment basin outlet structure in reasonably close conformity with the lines and grades shown on the Plans. The subgrade upon which the structure is to be placed shall be compacted to a firm and even surface. The Contractor shall remove any protruding objects and fill any voids in the subgrade that may affect proper placement of the outlet structure.

273.10 Outlet Structure. The outlet pipe shall be bedded according to [Section 612](#). Installation of the anti-seep collar, the metal base plate, stone, and the geotextile shall be in accordance with the details shown on the Plans. The anti-seep collar and base plate shall be welded to the pipe and riser. Where the ends of the geotextile come together, the ends shall be overlapped, folded, and stapled to prevent bypass. The geotextile shall be securely fastened to the pipe at the top and bottom of the geotextile.

The concrete base of the riser shall be constructed according to the requirements of [Section 602](#). Reinforcement of the concrete base is not required. Unless otherwise ordered by the Engineer, curing requirements may be reduced to three days.

Connections of the riser pipe to the outlet pipe shall be made watertight by welding the full circumference of the joint. All connections between pipe sections shall be made using approved watertight band assemblies. Welding shall be performed according to the requirements of [Section 605](#).

273.11 Backfill. The backfill conforming to [Subsection 273.02](#) shall be placed to the required elevation in 4" (100 mm) horizontal loose-thickness lifts at the same rate on all sides to prevent damage from unequal loading. Each lift shall be compacted by a manually directed power tamper under and around the pipe and other structures to 90% or more of maximum dry density.

A minimum depth of 24" (600 mm) of hand compacted backfill shall be placed over the pipe before crossing it with construction equipment.

273.12 Maintenance. Throughout the Project construction period, the Contractor shall maintain the sediment basin outlet structure by replacing all clogged geotextile and cleaning all clogged pipes and stones.

273.13 Removal of the Outlet Structure. At the end of the Project construction period or when directed by the Engineer, the Contractor shall remove the outlet structure and all materials incidental to the construction of the sediment basin outlet structure. All areas affected by the construction of the outlet structure shall be restored to the natural or plan contours and stabilized with seed and mulch.

273.14 Method of Measurement. The quantity of corrugated metal sediment basin outlet structures, will be measured as the actual number of each corrugated metal sediment basin outlet structure installed and accepted.

273.15 Basis of Payment. The quantity of corrugated metal sediment basin outlet structures will be paid for at the Contract unit price for each sediment basin outlet structure, corrugated metal. Price and payment will constitute full compensation for excavating; for dewatering; for all ground preparation; for furnishing and placing all materials including stones, concrete, corrugated metal pipes, connections, and bedding, trash racks, anti-seep collars, backfill, and all other materials required for the corrugated metal sediment basin outlet structure; for restoring the site; for seeding and mulching; for disposing of excess materials; and for all labor, equipment, tools, and incidentals necessary to complete the work.

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