

SECTION 02715 - UNDERDRAIN

PART 1- GENERAL

1.1 DESCRIPTION

- A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for furnishing and installing underdrain as shown on the Drawings and the Standard Details.

PART 2 - PRODUCTS

2.1 MATERIAL

- A. The type and size of underdrain pipe to furnished shall be as specified on the Drawings.
- B. Slotted or perforated and non-perforated corrugated steel pipe shall conform to the requirements of AASHTO M 36.
- C. Slotted or perforated and non-perforated corrugated aluminum alloy pipe shall conform to the requirements of AASHTO M 196.
- D. Slotted or perforated and non-perforated corrugated polyethylene (CPP) plastic pipe shall conform to the requirements of AASHTO M 252.
- E. Slotted or perforated and non-perforated polyvinyl chloride (PVC) plastic pipe shall conform to the requirements of ASTM D 3034.
- F. Slotted pipe shall have at least two rows of slots cut perpendicular to the axis of the pipe or at right angles to the pitch of corrugations and with the centerlines of the rows separated by one-third the circumference of the pipe. Slots shall have a width between one-sixteen inch and one-tenth inch and shall have a length, as measured along the inside circumference, of one inch to one and one-fourth- inch. Spacing of the slots shall be between three-fourth-inch and one and one-half-inch along the axis of the pipe. Slots shall be formed in such a way that inflow of water through the slots will not be impeded by excessive residual material from the slotting procedure.
- G. Granular backfill material shall be placed to the dimensions as shown on the Drawings or the Standard Details, and shall meet the following gradation:

<u>Sieve Designation</u>	<u>Percent Passing</u>
2-inch	100
No. 4	0-10
No. 100	0-3

- H. Filter cloth for underdrain trenches shall be Type A, as specified under Section 02714 - Filter Cloth.

SECTION 02715 - UNDERDRAIN

PART 3 - EXECUTION

3.1 CONSTRUCTION

- A. Trenches shall be excavated to the dimensions and grade shown on the Drawings or as directed by the ENGINEER. A nominal two inch layer of granular backfill material shall be placed and compacted in the bottom of the trench for its full width and length.
- B. Filter cloth, if called for on the Drawings, shall be placed as shown on the Drawings and the Standard Details.
- C. Perforated pipe shall be placed with the perforations down. The pipe sections shall be joined securely with the appropriate coupling bands or fittings.
- D. After the pipe installation has been inspected and approved, granular backfill material shall be placed and compacted to a height of 12 inches above the top of pipe. The remainder of the granular backfill material shall then be placed and compacted in six inch maximum layers to the required height.
- E. Any remaining portion of trench above the granular backfill shall be filled with either granular or impervious material, as may be specified, and thoroughly compacted. Compaction shall be as specified in Section 02203 - Trenching.

END OF SECTION