

## SECTION 717 PERMANENT ROADWAY DRAINS

**717.01 Description.** This work consists of constructing permanent roadway drains.

**717.02 Materials.** The material used for backfilling the permanent roadway drains shall conform to the requirements of [Section 813](#), Delaware No. 8.

### CONSTRUCTION METHODS

**717.03 Preparation.** Before excavation for the permanent roadway drains begins, the foundation of the roadway and the shoulder shall be properly shaped, uniformly and thoroughly compacted, and maintained as established in [Section 202](#).

The side ditches shall be acceptable to the Engineer prior to beginning the excavation for the permanent roadway drains.

**717.04 Construction of Drains.** All materials removed in the work of constructing permanent roadway drains shall be used in the formation of embankments, shoulders, and slopes unless the Engineer classifies the excavated material as unsuitable for re-use, whereupon the material shall become the property of the Contractor and be disposed of as specified in [Subsection 106.09](#).

The permanent roadway drains shall be constructed through the shoulder toward the side ditches as extensions of the graded aggregate base course. The ditches shall be constructed at intervals not to exceed 300N (90 m), unless otherwise designated on the Plans, and at all low points in the grade and at other points as established by the Engineer.

The permanent roadway drains shall be at least 12O (300 mm) in width and have a constant slope from the base course to the side ditch.

The Contractor shall conduct its operations in such a manner that the Engineer can take the necessary measurements before any backfill is placed. The excavated ditches shall be backfilled with approved material for a minimum thickness equal to that of the graded aggregate base course.

**717.05 Performance Requirements.** The permanent roadway drains shall be constructed to ensure adequate drainage of water from the graded aggregate base course to the side ditches.

**717.06 Method of Measurement.** The quantity of permanent roadway drains will be measured as the number of linear feet (linear meters) of permanent roadway drains accepted by the Engineer, measured along the centerline length of the bottom of the ditch from the nearest edge of the graded aggregate base course to the nearest edge of the side ditch.

Work and materials required for [Subsection 717.03](#) will not be measured.

**717.07 Basis of Payment.** The quantity of permanent roadway drains will be paid for at the Contract unit price per linear foot (linear meter). Price and payment will constitute full compensation for preparing, excavating, and disposing or re-using of the excavated material; for furnishing and placing the backfill material; and for all equipment, tools, labor, and incidentals required to complete the work.