

SECTION 265 GEOTEXTILE LINED CHANNEL DIVERSION

265.01 Description. This work consists of constructing, maintaining, and ultimately removing a geotextile lined channel diversion as a temporary drainage way to allow the Contractor to work in the existing channel by redirecting the water flow of the existing channel around the intended work area. Geotextile lined channel diversion shall be constructed as shown on Standard Construction Detail, Geotextile-Lined Channel Diversion, at the locations shown on the Plans, and as directed by the Engineer.

MATERIALS.

265.02 Fasteners. Fasteners shall be steel pins, 3/16" (4.7 mm) in diameter, and a minimum of 18" (450 mm) long. Washers shall be steel and 12" (38 mm) in diameter.

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

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

265.05 Stone. Stone shall be Delaware No. 3 conforming to the requirements of [Section 813](#).

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

CONSTRUCTION METHODS.

265.07 Construction of Geotextile Lined Channel Diversion. The Contractor shall have all required materials on site prior to starting construction on the geotextile lined channel diversion. The process of excavation shall be a continuous and uninterrupted operation. The cross-section of the diversion channel shall replicate the cross-section of the natural channel, unless otherwise specified. The Contractor shall begin excavation for the geotextile lined channel diversion at the downstream end of the proposed channel and proceed upstream. Excavation, including the downstream and upstream connection to the natural channel, shall be constructed under dry conditions. Sandbags shall be used to contain the stream. The Contractor shall excavate 24 by 24" (600 by 600 mm) trenches at the points of tie-in to the existing channel and at 12" (300 mm) beyond the top of the bank of the diversion channel for keying-in the geotextile as shown on Standard Construction Detail, Geotextile-Lined Channel Diversion.

All excavated materials shall be stockpiled outside of the floodplain. The Contractor shall temporarily stabilize the stockpiles according to the Engineer's directions to prevent reentry of any of the previously excavated materials into the natural channel. All disturbance resulting from construction of the geotextile lined channel diversion shall be contained by appropriate sediment control measures as indicated on the Plans or as determined by the Engineer.

All debris shall be removed and the channel diversion surfaces made smooth so that the geotextile will rest flush with the channel at all points of contact. The geotextile shall be placed such that one piece will line the entire channel. If the diversion channel is larger than the geotextile, the geotextile shall be placed with longitudinal overlapping. The Contractor shall be required to use sewn longitudinal overlaps. The Contractor shall overlap the upstream sections over the downstream sections. The geotextile sections shall be secured with pins and washers as shown on Standard Construction Detail, Geotextile-Lined Channel Diversion.

The Contractor shall key-in and anchor the geotextile along the entire length of the diversion channel by completely lining the trenches with the geotextile. After the geotextile is in place in the trenches, the Contractor shall carefully place the stone into the trench from a zero drop height.

The Contractor shall construct berms or swales to prevent sediment from surrounding areas of disturbance from entering the geotextile lined channel diversion. The Contractor shall stabilize the points of tie-in between the geotextile lined channel diversion and the natural channel according to the Plans.

265.08 Maintenance of Geotextile Lined Channel Diversion. Throughout the Project construction period, the Contractor shall maintain the geotextile lined channel diversion to the original dimensions and function of the geotextile lined channel diversion.

265.09 Removal of Geotextile Lined Channel Diversion. When directed by the Engineer and when all construction is completed in and around the existing stream, the Contractor shall redirect the stream back through the natural stream bed and remove the geotextile lined channel diversion. All materials incidental to the construction of the geotextile lined channel diversion shall be removed and the area shall be backfilled according to [Subsection 207.05](#). The Contractor shall restore the area of the geotextile lined channel diversion to the original or plan contours and shall stabilize the area with seed and mulch.

265.10 Method of Measurement. The quantity of geotextile lined channel diversion will be measured as the actual number of cubic yards (cubic meters) excavated for the geotextile lined channel diversion and accepted.

265.11 Basis of Payment. The quantity of geotextile lined channel diversion will be paid for at the Contract unit price per cubic yard (cubic meter). Price and payment will constitute full compensation for excavating; for furnishing and placing all material, including geotextile, stone, washers, pins, seed, and mulch; for maintaining the geotextile lined channel diversion during the Project construction period; for removing the geotextile lined channel diversion and all incidental materials; for restoring the site; for seeding and mulching; and for all labor, equipment, tools and incidentals required to complete the work.

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