VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION FOR TEMPORARY VEHICULAR WATERCOURSE CROSSING

March 25, 2009

I. GENERAL

This work shall consist of constructing a temporary vehicular watercourse crossing in accordance with these specifications and in conformity with the plans, Standard Drawings, permits and Contract documents.

II. MATERIALS

Pipe shall conform to the requirements of Section 232 of the Specifications.

Class I Dry Riprap shall conform to the requirements of Section 204.02 (b) of the Specifications.

Number 1 coarse aggregate shall conform to the requirements of Section 203 of the Specifications.

Geotextile Bedding Material shall conform to the requirements of Section 245 of the Specifications.

Timber shall be structural grade material conforming to the requirements of Section 236 of the Specifications.

III. CONSTRUCTION

The Contractor shall construct the temporary vehicular watercourse crossing at right angle to the stream. Where approach conditions dictate, the crossing may vary 15 degrees from a line drawn perpendicular to the approximate centerline of the stream.

The finished grade elevation of the crossing shall be 3 feet above the ordinary high water elevation. When not specified in the plans, or elsewhere in the Contract Documents, the Contractor shall determine the ordinary high water elevation using appropriate methods, and submit this information to the Engineer for approval prior to commencement of construction of the crossing.

Clearing and excavation of the stream bed and banks shall be kept to a minimum. The installation and removal of the crossing shall be accomplished in the dry utilizing a dry pump around or a stream diversion.

The Engineer may make minor adjustments in the location of any temporary vehicular watercourse crossing identified in the construction plans provided that the adjustment does not change the design for the temporary vehicular watercourse crossing or impact the environmental permits. In the event that the modifications are not covered by the permit, the Contractor shall be responsible for providing the information necessary for VDOT to secure the required permit modification. All temporary vehicular watercourse crossings will require a water quality permit.

Inlet and outlet ends of culverts greater than 24 inches in diameter shall be countersunk a minimum of 6 inches below the natural stream bed. Inlet and outlet ends of culverts 24 inches or less in diameter shall be countersunk a minimum of 3 inches below the natural stream bed. If bedrock is encountered during installation or if steep slopes prohibit countersinking to the prescribed depth, then the work shall cease and the Contractor shall notify the Engineer.

Geotextile bedding material shall be placed on the stream bed and stream banks prior to installation of the culverts and aggregate. The geotextile bedding material shall cover the stream bed and extend a minimum of one foot beyond the end of the culverts and rip rap material.

The culverts shall extend a minimum of one foot beyond the upstream and downstream toe of the aggregate placed around the culvert.

Timbers used for temporary vehicular watercourse crossing shall be 12-inch x 12-inch timbers and shall be anchored sufficiently to prevent displacement during use or storm events.

The Contractor shall maintain the temporary vehicular watercourse crossing until no longer needed.

When no longer needed, all material associated with the temporary vehicular watercourse crossing shall be removed in their entirety and the stream bed and stream banks restored to their previous elevations. Stream banks shall be reseeded and seed bed protected by the use of geotextile embankment stabilization fabric conforming to the requirements of Section 245.03(d) of the Specifications.

IV. MEASUREMENT AND PAYMENT

Temporary Vehicular Watercourse Crossing will be measured and paid for on an each basis per location. This price shall include full compensation for furnishing and installing all materials including pipe, aggregate riprap, geotextile bedding material, timbers, providing pump around or stream diversion during construction and removal, and all labor, equipment, materials, and incidentals needed for construction, maintenance, and removal and disposal of the crossing when no longer required.

Payment will be made under:

Pay Item	Pay Unit
Temporary Watercourse Crossing	Each