

604 Slope Paving

604.1 Description

- (1) This section describes paving embankment slopes and waterways with concrete slope paving or crushed aggregate slope paving to control and prevent erosion of the slopes and waterways.

604.2 Materials

- (1) Furnish materials conforming to the following:

Water	501.2
Crushed aggregate	501.2
Select crushed material	312.2
Concrete	501
Reinforcement	505
Expansion joint filler	415.2.3
Asphaltic materials	455.2

- (2) Furnish grade A concrete as modified in [716](#). Provide QMP for class III ancillary concrete as specified in [716](#).
- (3) Under the Slope Paving Crushed Aggregate bid item, furnish crushed stone or crushed gravel conforming to coarse concrete aggregate size No. 2 but with the additional requirement that at least 75 percent of the particles, by count, have at least one fractured face. Determine fracture according to [WTM D5821](#).
- (4) Under the Slope Paving Select Crushed Material bid item, furnish crushed rock or concrete conforming to [312.2](#) except the material need not be from a department-approved source.
- (5) The requirements of [501.2.7.3.2](#) relating to soundness and wear do not apply to crushed aggregate slope paving.
- (6) Furnish emulsified asphalt, type RS 1 or RS 2 conforming to [AASHTO M140](#), or type CRS 1 or CRS 2 conforming to [AASHTO M208](#) for the asphaltic material in crushed aggregate slope paving.

604.3 Construction

604.3.1 General

- (1) Prepare the foundation for the paving so that the finished paving surface conforms to the elevation, lines, grades and cross-sections the plans show, and the engineer directs. Prepare the foundation by excavating high places and backfilling and compacting low places until it conforms to the required elevation and slope, and is uniform in density. Dispose of excess excavated material as specified for disposal of surplus or unsuitable material in [205.3.12](#), or as the engineer directs.
- (2) If the plans specify headers, cut-off walls, or similar appurtenances, construct them as the plans show.
- (3) Unless directed otherwise, place one-inch expansion joint filler where slope paving abuts piers, abutments, or other solid fixtures.

604.3.2 Crushed Aggregate Slope Paving

- (1) Place crushed aggregate on the prepared foundation. Use mechanical or hand methods to shape and consolidate it to provide a stable, even, and uniform surface.
- (2) Apply the asphaltic material uniformly over the surface of the paving at a rate just sufficient to ensure penetration and binding of the particles in the upper 2 inches of the aggregate blanket. Avoid excessive application of asphaltic material and exercise care to prevent material run-off. Protect the surface of the adjacent structure to prevent splattering or discoloration by asphaltic material, and immediately remove material accumulations at the foot of the slope paving.

604.3.3 Select Crushed Material Slope Paving

- (1) Place select crushed material on the prepared foundation. Use mechanical or hand methods to shape and consolidate it to provide a stable, even, and uniform surface. Do not apply asphaltic material binder.

604.3.4 Concrete Slope Paving

604.3.4.1 General

- (1) Place concrete on the prepared foundation in forms set to provide a finished slab at least 4 inches thick. Ensure the concrete is workable when placed, but retains its position when struck off. Strike-off even with the forms and provide a broomed finish.

- (2) Cure concrete slope paving as specified in [415.3.12](#), except substitute type 1-D clear or translucent curing compound otherwise conforming to [415.2.4](#). During cold weather, protect the concrete as specified in [415.3.13](#) for concrete pavement.

604.3.4.2 Waterways

- (1) Reinforce the concrete slope paving as specified in plan details. Construct joints at locations and as the plans show or as the engineer directs.

604.3.4.3 Structures

- (1) Form planes of weakness or false joints in the concrete by scoring the finished surface at least 1/2 inch deep with an appropriate tool. Form blocks or squares approximately the width of the pour. Provide an edge-finish on joints or false joints. Do not reinforce the slope paving unless the contract specifies otherwise.

604.4 Measurement

- (1) The department will measure the Slope Paving bid items under this section by the square yard acceptably completed. The measured area equals the sum of the pavement areas, measured in the plane of the surface. The department will not measure headers or cut-off walls.

604.5 Payment

- (1) The department will pay for measured quantities at the contract unit price under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
604.0400	Slope Paving Concrete	SY
604.0500	Slope Paving Crushed Aggregate	SY
604.0600	Slope Paving Select Crushed Material	SY

- (2) Payment for the Slope Paving bid items is full compensation for excavating and backfilling required for preparing the paving foundation; for providing materials for concrete; for mixing, placing, finishing, curing, and protecting concrete; for providing reinforcement; for providing, handling, placing, and consolidating the crushed aggregate or select crushed material; and for providing, handling, heating, and applying asphaltic material.