

SECTION 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	section 501
Reinforcement	section 505
Expansion joint filler	415.2.4
Asphaltic materials.....	450.2

- (2) Furnish grade A, A-FA, A-S, A-T, A-IS, or A-IP concrete conforming to 501.2.
- (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 as specified in CMM 4-25-50.
- (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 an approved source.
- (5) The requirements of 501.2.5.4.3 relating to soundness and wear shall not apply to crushed aggregate slope paving.
- (6) Furnish emulsified asphalt, type RS 1 or RS 2 conforming to AASHTO M 140, or type CRS 1 or CRS 2 conforming to AASHTO M 208 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 (25 mm) expansion joint filler where slope paving abuts piers, abutments, or other solid fixtures.

604.3.2 Crushed Aggregate Slope Paving

- (1) Place the 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 (50 mm) 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 all material accumulations at the foot of the slope paving.

604.3.3 Select Crushed Material Slope Paving

- (1) Place the 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 the concrete between forms set to grade on the prepared foundation. Make the finished concrete slab a minimum 4 inches (100 mm) thick. Ensure the concrete is a workable consistency when placed,

but dry enough to retain its position when struck off. Strike-off the concrete with a straightedge supported on the forms and finish with a wood float.

- (2) Cure concrete slope paving as specified for concrete pavement in 415.3.12. If using the impervious coating method, provide translucent membrane curing material as specified in 502.2.6.1 for curing concrete in structures. During cold weather, protect the concrete as specified in 415.3.15 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) Set forms for concrete slope paving placed under structures or in areas exclusive of waterways in the direction of the slope to provide for pours 5 to 10 feet (1.5 m to 3 m) wide. Form planes of weakness or false joints in the concrete by scoring the finished surface at least 1/2 inch (13 mm) deep with an appropriate tool. Form blocks or squares approximately the width of the pour. Provide an edge-finish on joints or false joints. The contractor shall not reinforce the slope pavement unless the plans designate otherwise or as the contract provides.

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 all excavating and backfilling required for preparing the paving foundation; for disposing of surplus materials; for providing all materials for concrete; for mixing, placing, finishing, curing, and protecting concrete; for providing and placing reinforcement, if required; for providing, handling, placing, and consolidating the crushed aggregate or select crushed material; and for providing, handling, heating, and applying asphaltic material binder.