

Payment will be made under:

Item No.	Pay Item	Pay Unit
407XXXX	Bituminous Surfacing (Single Treatment) Type <i>(1, 2, or 3)</i>	Square Yard

SECTION 408

BITUMINOUS SURFACING (TRIPLE TREATMENT) TYPES 1 AND 2

408.01 Description. This work shall consist of a wearing surface composed of a bituminous prime coat when specified and applications of bituminous material and spreading of aggregate, constructed on a prepared base, all in accordance with these specifications and in conformity with the typical cross-section shown on the plans and to the lines and grades set by the Engineer.

MATERIALS

408.02 Bituminous Materials.

A. Emulsified Asphalt. Emulsified asphalt shall be grade CRS-2 and shall conform to the requirements specified in Subsection **406.06**.

B. Prime. Materials for priming shall be RC-30, MC-30, or EA-P Special and shall meet the requirements specified in Subsections **406.02**, **406.03**, and **406.05**.

408.03 Aggregate. Aggregates No. 5, No. 6M, No. 89M, and No. 789 shall conform to the requirements specified in Subsection **406.08**, including the provision concerning marine (fossiliferous) limestone.

Aggregate No. FA-13 shall consist of crushed stone, crushed or uncrushed gravel or sand. The aggregate shall be free from clay balls and adherent films of clay.

Washed screenings may be used in lieu of Aggregate FA-13 in Bituminous Surfacing (Triple Treatment) Type 2, and shall meet the following gradation:

Washed Screenings	
Sieve Designation	Percentage by Weight Passing
3/8"	100
No. 4	90-100
No. 8	80-100
No. 30	25-55
No. 100	0-10
No. 200	0-4

408.04 Variation in Materials. Variation in materials shall conform to the requirements specified in Subsection **406.09**.

CONSTRUCTION REQUIREMENTS

408.05 Equipment. Equipment shall conform to the requirements specified under Subsection **406.10** through **406.12**, and in addition shall conform to the following: When Aggregate No. FA-13 or washed screenings are used, a spreader equipped with a mechanical device that will spread the Aggregate No. FA-13 or washed screenings at a uniform rate.

408.06 Weather and Seasonal Limitations. Weather and seasonal limitations shall be as specified in Subsection **406.13**.

408.07 Cleaning of Base. Cleaning of base course shall conform to the requirements specified in Subsection **406.14**.

408.08 Sequence of Operations. Bituminous surface treatment shall be applied using quantities and sequence of operations as outlined in the table entitled *Sequence of Op-*

erations and Quantities per Square Yard for Bituminous Surfacing (Triple Treatment) Types 1 and 2 located in the Appendix of these specifications.

408.09 Applications of Bituminous Materials. The bituminous material shall be applied as specified in Subsection **406.16**. The temperature at which the bituminous materials are sprayed shall be within the limits specified in Subsection **406.07**.

408.10 Determination of Truck Weights. Truck weights shall be determined as provided in Subsection **406.17**.

408.11 Spreading of Aggregate. Spreading of aggregate shall conform to the requirements specified in Subsection **406.18**. The Aggregate No. FA-13 shall be spread using equipment specified in Subsection **408.05**.

408.12 Brooming and Rolling. Except for the spreading of aggregates No. 789 and No. 89M applied for second layer, each layer of aggregate shall be rolled following spreading as directed by the Engineer. Rolling shall be performed with a steel wheel tandem and pneumatic roller. Rolling and light brooming with drag or rotary brooms shall be repeated as often as, in the opinion of the Engineer, is necessary to obtain a smooth, even surface and to insure thorough keying of the aggregate into the asphalt. Broom operations should be delayed until the asphalt has set sufficiently to hold the stone and prevent the broom from turning the stone over. Traffic shall be permitted to use the road as soon as the mat aggregate is spread. When, in the judgment of the Engineer, the aggregate is sufficiently embedded in the bitumen, the Contractor shall remove from the surface all loose excess material.

The rolling of the final layer shall be started as soon as sufficient aggregate is spread to prevent pickup and continued until the aggregate is worked into the surface. The initial rolling of the final layer shall be performed with the steel wheel roller. Light brooming with drag or rotary brooms shall begin as soon as possible after the rolling has started and the

surface set sufficiently to prevent excessive marking of the seal surface. Further light brooming shall be done as often as necessary to keep the cover aggregate uniformly distributed over the surface. Brooming, rolling and back-spotting shall be continued until the top surface is compacted, bonded and cured to the satisfaction of the Engineer. All surplus aggregate shall be swept off the surface before final acceptance.

408.13 Maintenance. Maintenance shall conform to the requirements specified in Subsection **406.21**.

408.14 Method of Measurement. The quantity measured for payment shall be the number of square yards of bituminous surfacing, completed, accepted, and measured in-place along the surface of the road. Material placed outside of the area designated to be treated shall be disregarded in computing the number of square yards.

In order to verify rates of application, the quantities of materials used will be measured as provided in Subsection **406.22**.

408.15 Basis of Payment. The accepted quantity, measured as provided in Subsection **408.14**, will be paid for at the contract unit price for Bituminous Surfacing-Triple Treatment of the specified type, including prime coat when specified, which price and payment shall be full compensation for furnishing, hauling, applying, spreading, and rolling all materials, and including all, tools, equipment, labor, maintenance, and incidentals necessary to complete the work.

Payment for this item includes all direct and indirect costs and expenses required to complete the work.

Payment will be made under:

Item No.	Pay Item	Pay Unit
408XXXX	Bituminous Surfacing (Triple Treatment) Type <u>(1 or 2)</u>	Square Yard

408.16 Substitution of Asphalt Concrete Surface Courses for Bituminous Surfacing (Triple Treatment).

Substitution shall be in accordance with the requirements of Subsection **406.24**.