

SECTION 410 - BITUMINOUS SURFACE TREATMENT

410.01 Description. This work includes constructing a single or multiple course bituminous surface treatment according to the contract.

The types of bituminous surface treatments are as specified in Table 410-I.

410.02 Materials.

(A) **Bituminous Material.** The bituminous material used shall be a 120-150 grade asphalt cement, an RS-1 grade emulsified asphalt or a MC-800 grade cut-back asphalt, conforming to Section 702 - Bituminous Materials. The Engineer may change the grade one (1) step during construction at no change in unit price.

(B) **Aggregate.** Aggregates shall conform to Subsection 703.12 - Aggregate for Highway Construction. (See Table 410-I for sizes required)

410.03 Construction Requirements. The types of bituminous surface treatments, and the sequence and quantities of materials are as outlined in Table 410-I.

The provisions of Subsection 409.03 - Construction Requirements, shall govern.

If the Contractor elects to use an asphalt cement or emulsified asphalt binder, the Engineer will require a prime coat conforming to Section 408.

410.04 Method of Measurement. The Engineer will measure the bituminous material by the ton or gallon according to Section 109 - Measurement and Payment.

The Engineer will measure the aggregate by the ton or cubic yard according to Section 109 - Measurement and Payment, except that the Engineer will deduct moisture over from the weighed tonnage:

Rock Size	Moisture Content (Based on Dry Aggregate Weight)
8 and 9	5 percent
6, 56, 67 and 7	3 percent

The Engineer will not measure prime coat, when required.

TABLE 410-1 - QUANTITIES PER SQUARE YARD							
APPLICATIONS AND SPREADINGS	Using Asphalt Cement T Y P E						
	1	2	3	4	5	6	7
First Application:							
Bit. Matl-Gallons	0.20	0.20	0.25	0.12	0.15	0.15	0.20
Crushed Rock-Size	8	6	6	6	6	56	56
Pounds	21	43	30	26	33	58	75
Cubic Yards	0.009	0.017	0.017	0.010	0.013	0.023	0.030
Second Application:							
Bituminous							
Bit. Matl-Gallons	-	0.25	0.20	0.12	0.18	0.30	0.30
Crushed Rock-Size	-	8	8	6	6	6	7
Pounds	-	15	14	36	23	33	21
Cubic Yards	-	0.006	0.005	0.014	0.009	0.013	0.008
Third Application:							
Bituminous							
Bit. Matl-Gallons	-	0.15	0.18	0.20	0.20	0.20	0.20
Crushed Rock-Size	-	9	9	8	8	8	8
Pounds	-	10	11	21	17	17	15
Cubic Yards	-	0.004	0.004	0.008	0.007	0.007	0.006
Fourth Application:							
Bit. Matl-Gallons	-	-	-	0.20	0.20	0.20	0.20
Crushed Rock-Size	-	-	-	9	9	9	9
Pounds	-	-	-	10	10	10	10
Cubic Yards	-	-	-	0.004	0.004	0.004	0.004
Total Bituminous Material-Gallons	0.20	0.60	0.63	0.64	0.73	0.85	0.90

TABLE 410-1 (cont) - QUANTITIES PER SQUARE YARD						
APPLICATIONS AND SPREADINGS	Using Emulsified Asphalt T Y P E					Using Cutback Asphalt T Y P E
	8	9	10	11	12	13
First Application:						
Bit. Matl-Gallons	0.33	0.15	0.35	0.35	0.20	0.40
Crushed Rock-Size	67	8	7	7	7	8
Pounds	38	15	38	38	38	21
Cubic Yards	0.015	0.006	0.015	0.015	0.015	0.009
Second Application:						
Bit. Matl-Gallons	-	0.25	-	0.25	0.30	-
Crushed Rock-Size	-	9	-	8	8	-
Pounds	-	10	-	23	15	-
Cubic Yards	-	0.004	-	0.009	0.006	-
Third Application:						
Bit. Matl-Gallons	-	-	-	-	0.20	-
Crushed Rock-Size	-	-	-	-	9	-
Pounds	-	-	-	-	10	-
Cubic Yards	-	-	-	-	0.004	-
Fourth Application:						
Bit. Matl-Gallons	-	-	-	-	-	-
Crushed Rock-Size	-	-	-	-	-	-
Pounds	-	-	-	-	-	-
Cubic Yards	-	-	-	-	-	-
Total Bituminous Material-Gallons	0.33	0.40	0.35	0.60	0.70	0.40

410.05 Basis of Payment. The Engineer will pay for the accepted quantities *|
of bituminous surface treatment at the contract unit price per ton or per *|
gallon. *|

The Engineer will pay for the accepted quantities for each size of *|
aggregate per ton or per cubic yard complete in place. *|

The price paid shall be full compensation for furnishing labors, tools, *|
materials, equipment and incidentals necessary to complete the bituminous *|
surface treatment.

410.05

The Engineer will make payment under:

*|

Pay Item	Pay Unit
Bituminous Material	Ton
Bituminous Material	Gallon
Aggregate Size, No. _____	Ton
Aggregate Size, No. _____	Cubic Yard