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3.19 PRIME, TACK AND FOG COATS**3.19.1 GENERAL****3.19.1.1 Description**

The Work shall consist of placing an asphalt material on a prepared surface at locations shown on the plans or designated by the Consultant.

3.19.1.2 Definitions**Prime Coat**

An application of a liquid asphalt to an absorbent surface to waterproof and promote bonding between the surface being primed and the next course.

Tack Coat

An application of a liquid asphalt to ensure a bond between the surface being paved and the next course.

Fog Coat

An application of a liquid asphalt to seal small cracks and surface voids and as a curing seal for Cement Stabilized Base Course.

3.19.2 MATERIALS

The Contractor shall supply the asphalt material in accordance with Specification 5.7, Supply of Asphalt.

The types and grades of liquid asphalts for Prime Coat, Tack Coat, Curing Fog Coat for Cement Stabilized Base Course, and Fog Coat shall be as follows:

Prime Coat:

The Contractor's choice of SEP-1, SEP-2 or SS-1 for application through August 31 each season. The Contractor's choice of MC-30, SEP-1, SEP-2 or SS-1 for application after August 31 each season.

Sand used for the blotting of excess asphalt due to prime shall be supplied by the Contractor.

Tack Coat and Curing Fog Coat for Cement Stabilized Base Course:

SS-1 or MS-1 for application throughout the construction season. As well, the Contractor has the option of using RC-30 or RC-70 for application after August 31 each season.

Fog Coat:

SS-1 for application through August 31 each season. The Contractor's choice of MC-30 or SS-1 for application after August 31 each season.

3.19.3 CONSTRUCTION

Except for cement stabilized bases where it is preferred that the Fog Coat seal be applied while the surface is still moist, asphalt material for Tack Coat and Fog Coat shall be applied only when the surface to be treated is dry, when the weather is not foggy or rainy, and when the surface temperature is above zero degrees Celsius for application of cutback asphalts and 5 degrees Celsius for emulsions, or as otherwise approved by the Consultant.

If SS-1 is used for Fog Coat, the material as delivered by the supplier shall be diluted by adding an amount of water to be determined by the Contractor.

The asphalt material shall be applied by means of a self-powered pressure distributor equipped with the following control devices.

- (1) Tachometer.
- (2) Pressure gauge.
- (3) Adjustable length spray bar.
- (4) Positive displacement asphalt pump with separate power unit.
- (5) Heating coils and burner capable of applying even heat to the asphalt material.
- (6) Thermometer well and accurate thermometer.

Before applying asphalt material, the Contractor shall ensure that the distributor meets the following adjustments and requirements:

- (1) The distributor vehicle will maintain a constant height of the spray bar as the tank is unloaded.
- (2) All spray bar nozzles are of the same manufacture, type, and size.
- (3) Clogged nozzles have been removed and cleaned with solvent.
- (4) All nozzles have been set in the spray bar so that the nozzle slots make the same angle (15° to 30°) with the longitudinal axis of the spray bar.
- (5) The spray bar has been adjusted to the correct height to ensure uniform application without streaking.
- (6) The spray bar has been provided with a positive shut-off to prevent dribbling.
- (7) The distributor is capable of maintaining a uniform speed.

The distributor may be checked for calibration by the Consultant before being used on the work.

Before applying the asphalt material, loose dirt or other objectionable material shall be removed from the prepared surface by brooming or by other methods acceptable to the Consultant. Where base courses become ravelled, the loose material shall be moistened and recompact to achieve a tight, uniform surface.

The asphalt shall be uniformly applied without streaking.

Joints and seams shall not be excessively overlapped. Structures, wheel guards, guardrail, and other

roadway appurtenances shall not be spattered by the asphalt material. The Contractor shall remove, at his own expense, any spattering caused by his operation.

Areas missed by the distributor or inaccessible to the distributor shall be treated using a hand spray or pouring pot.

Traffic shall not to be permitted to travel on Tack or Fog Coat until it has cured.

Traffic shall not to be permitted to travel on prime coat until 6 hours after application or until it has cured. After this period of time, excess asphalt material remaining on the surface shall be blotted by sand before traffic is permitted to travel on the surface. The "blotter sand" can be any clean sand.

Where traffic must be accommodated, the Contractor shall apply the Prime, Tack or Fog coat covering up to only one-half of the roadway surface at a time. Other portions across the roadway shall not be sprayed until previous applications have properly cured and in the case of Prime Coat, all puddles and excess free asphalt has been blotted.

In all situations, Prime Coat and Tack Coat shall be maintained by the Contractor at his own expense including the cost of the required liquid asphalt. Any area of Prime Coat or Tack Coat that has become fouled shall be repaired before Asphalt Stabilized Base Course or Asphalt Concrete Pavement is placed.

3.19.4 MEASUREMENT AND PAYMENT

3.19.4.1 **Fog Coat**

Measurement for the application of Fog Coat will be in square metres. Payment will be made at the unit price bid per square metre for "Fog Coat."

Measurement of the supply of asphalt for Fog Coat will be in tonnes. Payment will be made at the unit price bid per tonne for "Supplying Asphalt for Fog Coat."

3.19.4.2 **Prime Coat**

Payment for supplying, applying and maintaining the prime coat will be included in the unit price bid per tonne for "Granular Base Course" and no separate payment will be made.

3.19.4.3 **Tack Coat**

Payment for supplying, applying and maintaining Tack Coat will be included in the unit price bid per tonne for "Asphalt Concrete Pavement-EPS" and no separate payment will be made.