

PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Materials and application of asphalt prime to granular base surface prior to asphalt paving.

1.2 RELATED SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.

1.3 REFERENCES

- .1 American Society for Testing and Materials International, (ASTM)
- .2 ASTM D140/D140M-09, Standard Practice for Sampling Bituminous Materials.
- .3 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-16.1-M89, Cutback Asphalts for Road Purposes.
 - .2 CAN/CGSB-16.2-M89, Emulsified Asphalts, Anionic Type, for Road Purposes.

1.4 SUBMITTALS

- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.

1.5 QUALITY ASSURANCE

- .1 Upon request from Departmental Representative, submit manufacturer's test data and certification that asphalt prime material meets requirements of this Section in accordance with Section 01 33 00 - Submittal Procedures.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials to ASTM D140-01.
- .2 Provide, maintain and restore asphalt storage area.

1.7 MEASUREMENT FOR PAYMENT

- .1 No separate measurement for payment shall be made for items under this section. Include costs incidental in the Lump Sum Amount of work on the Combined Price Form.
-

PART 2 - PRODUCTS

2.1 MATERIAL

- .1 Asphalt material: to. CAN/CGSB-16.2 grade: SS-1.
- .2 Sand blotter: clean granular material passing 4.75 mm sieve and free from organic matter or other deleterious materials.
- .3 Water: clean, potable, free from foreign matter.

2.2 EQUIPMENT

- .1 Pressure distributor to be:
 - .1 Designed, equipped, maintained and operated so that asphalt material can be:
 - .1 Maintained at even temperature.
 - .2 Applied uniformly on variable widths of surface up to 5 m.
 - .3 Applied at controlled rates from 0.2 to 5.4 L/m² with uniform pressure, and allowable variation from any specified rate not exceeding 0.1 L/m².
 - .4 Distributed in uniform spray without atomization at temperature required.
 - .2 Equipped with meter registering metres of travel per minute, visibly located to enable truck driver to maintain constant speed required for application at specified rate.
 - .3 Equipped with pump having flow meter graduated in units of 5 L or less per minute passing through nozzles and readily visible to operator. Pump power unit to be independent of truck power unit.
 - .4 Equipped with easily read, accurate and sensitive device which registers temperature of liquid in reservoir.
 - .5 Equipped with accurate volume measuring device or calibrated tank.
 - .6 Equipped with nozzles of same make and dimensions, adjustable for fan width and orientation.
 - .7 Equipped with nozzle spray bar, with operational height adjustment.
 - .8 Cleaned if previously used with incompatible asphalt material.
- .2 Aggregate Spreader:
 - .1 Apply blotter sand to primed surfaces using roll type spreader, or rotating disc sander capable of applying aggregate at variable widths and at variable rates.

PART 3 - EXECUTION

3.1 APPLICATION

- .1 Obtain Departmental Representative's approval of granular base surface before applying asphalt prime.
- .2 Anionic emulsified asphalt:
 - .1 Dilute asphalt emulsion with clean water at 1:1 ratio for application.
 - .2 Mix thoroughly by pumping or other method approved by Departmental Representative.
 - .3 Apply diluted asphalt emulsion at rate directed by Departmental Representative, but do not exceed 5 L/m².
 - .4 Apply diluted asphalt emulsion on damp surface unless otherwise directed by Departmental Representative.
- .3 Apply asphalt prime only on unfrozen surface.
- .4 Do not apply prime when air temperature is less than 10 degrees C or when rain is forecast within two (2) hours.
- .5 Paint contact surfaces of curbs, gutters, headers, manholes and like structures with thin, uniform coat of asphalt prime material.
- .6 Where traffic is to be maintained, treat no more than one-half width of surface in one application.
- .7 Prevent overlap at junction of applications.
- .8 Do not prime surfaces that will be visible when paving is complete.
- .9 Apply additional material to areas not sufficiently covered as directed by Departmental Representative.
- .10 Keep traffic off primed areas until asphalt prime has cured set.
- .11 Permit prime to cure set before placing asphalt paving.

3.2 USE OF SAND BLOTTER

- .1 If asphalt prime fails to penetrate within twenty-four (24) hours spread sand blotter material in amounts required to absorb excess material.
-

- .2 Allow sufficient time for excess prime to be absorbed as directed by Departmental Representative.
- .3 Apply second application of sand blotter as required.
- .4 Do not roll blotter sand.
- .5 Sweep and remove excess blotter material.