

## **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.

## **PART 2 - PRODUCTS**

### **2.1 MATERIAL**

- .1 Asphalt material: to CAN/CGSB-16.2 grade: SS-1.
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- .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/m<sup>2</sup> with uniform pressure, and allowable variation from any specified rate not exceeding 0.1 L/m<sup>2</sup>.
    - .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.

## **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.
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- .3 Apply diluted asphalt emulsion at rate directed by Departmental Representative, but do not exceed 5 L/m<sup>2</sup>.
- .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 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.