Section 53.0

Knoxville, Tennessee March 2022

TECHNICAL SPECIFICATIONS FOR COAL TAR SEALCOAT

1. <u>Description</u>

This work shall consist of the application of a refined coal tar emulsion and sand mixture to an existing bituminous pavement in accordance with the requirements of these Specifications.

2. <u>Materials</u>

- (a) Coal tar emulsions shall conform to the requirements set forth in Federal Specification R-P-355E.
- (b) Sand shall conform to the requirements of Subsection 903.02 of TDOTSS, January 1, 2021 and all Supplemental Specifications thereto pertaining issued prior to the advertisement for this contract., except as noted in gradation requirements below.

<u>Sieve Size</u>	% Passing, by Weight
No. 30	95-100
No. 70	5-30
No. 100	0-10
No. 200	0-5

(c) Coal tar emulsion and sand shall be mixed at a rate of 2-3 pounds of sand per gallon of emulsion. Sand shall be uniformly distributed throughout the emulsion upon application to surface.

3. Equipment and Construction Requirements

- (a) All equipment necessary for the satisfactory performance of this construction shall be on hand and approved before work will be permitted to begin. The required equipment shall include a power broom or other mechanical sweeping equipment, equipment for agitating the sand and coal tar emulsion and such other equipment and small tools as may be required to perform the work in a satisfactory manner.
- (b) The sealcoat shall be applied by broom and squeegee at a rate of two gallons (before dilution) per 100 sq. ft. in two coats.
- (c) Before applying sealcoat the surface shall be cleaned of all excess joint material, dirt and vegetation to the satisfaction of the Engineer.

4. Method of Measurement

Coal tar sealcoat will be measured by the number of gallons (before dilution) used in the accepted work, as determined by the Engineer.

5. Payment

Coal tar sealcoat will be paid at the Contract unit price per gallon and shall be full compensation for all work, materials, labor and incidentals required to complete the work in accordance with the Plans and Specifications.

6. Health Hazard Data

- (a) Coal tar pitch is considered a carcinogen or potential carcinogen. Coal tar pitch volatiles, soots, tars and oils are listed as a carcinogen by OSHA, National Toxicology Program and International Agency for Research on Cancer.
- (b) Skin contact with coal tar or high vapor concentrations may cause burning and itching, changes in pigmentation, and skin eruptions. Sensitivity to sunlight may occur. Prolonged or repeated skin contact may cause dermatitis and with poor hygiene may lead to skin cancer.
- (c) Coal tar vapors are irritating to the eyes. Direct contact with coal tar may cause inflammation, discomfort, conjunctivitis, and possible abrasion to the cornea.