

# SPECIAL PROVISION

NOTE: This special provision is generally written in the imperative mood. The subject, "the Contractor" is implied. Also implied in this language are "shall", "shall be", or similar words and phrases. The word "will" generally pertains to decisions or actions of Sedgwick County Public Works.

## BITUMINOUS CONSTRUCTION

### 1. DESCRIPTION

This work shall consist of placing one or more lifts of bituminous mixtures in accordance with these Special Provisions and in reasonable conformity with the lines, grades, thicknesses, and typical sections shown on the plan or established by the Engineer. Materials, equipment and construction requirements shall be in accordance with Division 1000 - Materials, and Division 600, Section 601 - Equipment, Section 602 - Asphalt Application Temperatures and Section 603 - Plant Mix Bituminous Construction of the Kansas Department of Transportation, **1990 Edition**, Standard Specifications for State Road and Bridge Construction, except as supplemented herein.

<u>BID ITEMS</u>	<u>UNITS</u>
Bituminous Base Construction (*)	Ton
Bituminous Surface Construction (*)	Ton

\*BM-1, BM-2, or BM-4

### 2. MATERIALS

- a. Aggregates. The aggregate gradation before the asphalt cement is added shall conform to the Kansas Department of Transportation Specifications. Gradation test results from the combined aggregate shall be submitted by the producer for approval by the Engineer before asphalt cement is added. This gradation shall not be less than the lower master grading limits plus the specified job-mix tolerances nor more than the upper master grading limits minus the specified job-mix tolerances. Contractor shall submit the mix design not less than two weeks before the beginning of the lay down operation for approval by the Engineer.
- b. Permissive Recycling. The contractor may use all new materials or a blend of new materials in combination with a maximum of 25% reclaimed asphalt pavement (RAP). The RAP will be allowed in the construction of the base courses only. The RAP will not be considered as part of the crushed or uncrushed aggregate. The RAP shall be reasonably free of contamination by mud balls and crushed concrete and placed in a stockpile accessible for sampling and visual inspection. Other than passing the RAP through a 2 ¼" screen or grizzly before it enters the hot-mix plant, no specific gradation will be required.

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### c. Bituminous Materials

1. The type of asphalt cement to be used shall be performance graded and approved by the Engineer before incorporating into the project. Certified test results shall be required before approval. These test results shall be in conformance with the requirements of Kansas Department of Transportation Special Provision 90M-197-R4. The amount of asphalt cement required shall be determined as a percent of the dry weight of combined aggregate from Marshall Test results submitted to the Engineer. Asphalt cement from RAP will not be allowed as part of the total asphalt cement content of the mix. Regardless, any change in the asphalt cement content from the approved Marshall Design which the Engineer deems necessary during the lay down operation will be accomplished with no change in unit price.
2. Bituminous material for tacking of contact surfaces of each paving layer shall be emulsified asphalt Types SS-1H or CSS-1H.
3. Bituminous Mixtures shall conform to the following Marshall Properties:

<u>Marshall Property</u>	<u>Limits</u>		
	<u>BM-1</u>	<u>BM-2</u>	<u>BM-4</u>
Minimum Stability	1500 lbs.	1800 lbs.	1100 lbs.
Maximum Flow	0.12 in.	0.12 in.	0.15 in.
% Voids	3% - 5%	3% - 5%	3% - 5%
Minimum & Voids Filled	70%	70%	60%

### 3. CONSTRUCTION REQUIREMENTS

#### a. Surface Preparations.

1. Subgrade Surface. The subgrade surface shall be maintained by the Contractor and shall not be excessively dry or wet prior to placing bituminous mixture. No asphalt priming of the subgrade surface will be required, but moistening of the surface will be required when directed by the Engineer.
2. Existing Bituminous Base Surfaces. Bituminous Base Surfaces shall be free of any foreign matter or moisture prior to placing of any additional courses of bituminous mixture. The entire bituminous surface shall be tacked at the rate of 0.05 gallon per square yard prior to placing of the next course of the bituminous mixture.

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- b. Application. The material shall be laid in conformance with State Specifications. The Surface Course shall be defined as the top two inches (2") of the pavement cross section unless otherwise shown on the plans or established by the Engineer.
- c. Weather Limitations. The following paragraph shall be added to Section 603.06. Operations shall be discontinued if, in the opinion of the Engineer, high wind velocities create excessive cooling of the mixture.

### **4. MEASUREMENT AND PAYMENT**

The Engineer will measure Bituminous Base Construction and Bituminous Surface Construction by the ton completed in place.

Commercial scale tickets completed by the producer will be acceptable.

The amount of completed and accepted work shall be paid for at the contract unit price bid per ton for "Bituminous Base Construction" and "Bituminous Surface Construction". These prices shall be full compensation for furnishing all material, including all tack coats, labor, equipment and incidentals necessary to complete the work.