



**COMMONWEALTH OF KENTUCKY  
TRANSPORTATION CABINET**

Frankfort, Kentucky 40622  
www.transportation.ky.gov/

**Matthew G. Bevin**  
Governor

**Greg Thomas**  
Secretary

March 12, 2019

CALL NO. 100  
CONTRACT ID NO. 191210  
ADDENDUM # 1

Subject: Laurel County, NHPP IM 0752 (100)  
Letting March 22, 2019

(1) Added - Special Notes - Pages 80(a) to 80(e) of 227.

Proposal revisions are available at <http://transportation.ky.gov/Construction-Procurement/>.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

A handwritten signature in cursive script that reads "Rachel Mills".

Rachel Mills, P.E.  
Director  
Division of Construction Procurement

RM:mw  
Enclosures



An Equal Opportunity Employer M/F/D

March 7, 2019

## SPECIAL NOTE FOR ASPHALT CK BASE

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's 2012 Standard Specifications for Road and Bridge Construction. Follow the 2012 Standard Specifications for Road and Bridge Construction except for the exception in this special note.

**1.0 Description.** This work shall consist of furnishing all the materials, testing equipment, performing testing, and the construction of an asphalt base as described herein.

The paving mixture is intended to be a uniformly, coarse-graded material containing a high percentage large-size aggregate resulting in a low deformation, shear-resistant pavement suitable for very heavily loaded vehicles and/or paving over Portland cement concrete.

The compacted lift thickness(es) shall be specified elsewhere in the contract or on the plans. Typically, a finished compacted lift thickness will range from a minimum lift thickness of four and one half inches to a maximum lift thickness of six inches.

### **2.0 Materials.**

2.1 Aggregate. Coarse aggregate shall conform to section 805 except that all slag shall be 100 percent passing the  $\frac{3}{4}$  inch sieve. Gravel will not be permitted.

Fine aggregate shall conform to section 804. Natural and/or conglomerate sand will be limited to a maximum of 10 percent of the total aggregate weight.

2.2 Asphalt Binder. Provide an asphalt binder conforming to section 806. The asphalt binder shall be a PG 64-22, unless otherwise specified in the proposal or on the plans.

2.3 Reclaimed Materials. The use of reclaimed material in the mixture will not be permitted.

2.4 Anti-Stripping Additive. Anti-stripping additive may be required as determined by ASTM D4867. Any changes in the source of materials on the approved mix design may require further testing by the Contractor for this property. Measurement and payment for anti-stripping will be considered incidental to the Asphalt CK Base.

2.5 Warm Mix. Contrary to section 402 warm mix will not be permitted.

### **3.0 Mix Design Criteria.**

3.1 Preparation of Mixture. Conform to the following aggregate composition limits (master range) along with the tolerance of the JMF during production.

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<b>Aggregate Composition Limits</b>		
Sieve Size	Percent Passing By Weight	JMF Tolerance (%)
2 inch	100	
1 1/2 inch	80 - 100	± 8
1 inch	65 - 85	± 8
3/4 inch	50 - 70	± 6
1/2 inch	40 - 60	± 6
3/8 inch	30 - 50	± 5
No. 4	15 - 30	± 5
No. 8	8 - 18	± 5
No. 16	5 - 15	± 5
No. 30	4 - 12	± 5
No. 50	3 - 10	± 4
No. 100	2 - 8	± 2
No. 200	0 - 5	± 1.5

3.2 Preliminary Mix Design. Perform the volumetric mix design according to AASHTO R 35 and conforming to M323. However, the gradation of the design must fall within the master range listed in the Aggregate Composition Limits table above. Complete the volumetric mix design at the appropriate number of gyrations in section 403. The ESAL also will be listed on the plans or proposal and/or established on the pay item. The department will require a dust-to-binder ratio of 0.8 to 1.6, the VMA shall be 11.0 minimum, and a TSR value of 80% minimum. The target for air voids during the design shall be in the range of 4.0 to 4.5.

This mixture will be considered a specialty mixture no matter the ESAL class and shall be for the mix design requirements as outlined in KM 421 section 3.9.1.2.

3.3 Selection of Optimum AC. The department will approve the AC at an air-void content in the range of 4.0 to 4.5. The Engineer may assign an AC corresponding to other air-void levels as deemed appropriate. Ensure that the optimum AC is a minimum of 3.5 percent by weight of the total mixture.

**4.0 Control and Acceptance.** Conform to section 402 with the following exception listed below.

**4.1 Acceptance.** Acceptance testing shall conform to section 402 except for the following. Acceptance will be by the means of gradation and asphalt content instead of volumetric properties. The acceptance range (JMF tolerance) for gradation listed above in the Aggregate Composition Limits table will be used for acceptance and at no time shall exceed the master range. Gradation, AC content, and

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volumetric testing will be required once every 1000 tons of production of the Class CK Base. During the production air voids shall be between 1.5 to 7, VMA minimum of 10.5, asphalt content shall be within the range of plus/minus 0.5 from the approved mix design, and gradation within the range JMF tolerances, not to exceed the master range. At any time when the production of the mixture falls outside these ranges then production shall cease and follow section 402 to allow the re-start of production. Record all results on the AMAW along with any changes made to the mixture during production.

4.1.a Gradation. The field sample must be obtained as in accordance with ASTM D75.5 to determine the gradation of the bituminous mixture. Automatic belt sampling devices is required and must have prior approval by the department before use to ensure all material is being removed and collected from the belt during production. Once the field sample has been obtained follow ASTM T248 Method A to obtain the test sample. Contrary to KM 64-620, KM 64-606, AASTHO T11, and AASTHO T27 the test sample size for the -200 um wash and gradation test shall have a minimum of 7000 grams and the field sample shall be 70 to 90 lbs.

4.1.b Asphalt Content Contrary to section 402, asphalt determination will only be accepted by AASTHO T308.

4.2 Density. Conform to section 402 and compact asphalt mixture by Option A for mainline, turning lanes, and ramps. Asphalt mixture placed on the shoulder shall be accept by Option B.

**5.0 Construction.**

5.1 Seasonal and Weather Limitations. Conform to section 403.

5.2 Placement. When constructing driving lanes, ramps, turning lands, and shoulders use a MTV to place the mixture to ensure uniformity of the placement of the mixture.

**6.0 Payment.**

6.1 Lot Pay Adjustment.

The Department will follow section 402.05 except for as follows.

Lot Pay Adjustment for Compaction Option B = (\$50.00) (Quantity) {[0.25(AC Pay Value) + 0.15(Percent Passing 1-inch sieve Pay Value) +0.15(Percent Passing 1/2 –sieve Pay Value) +0.15(Percent Passing 3/8-inch Pay Value) +0.15(Percent Passing No.4-sieve Pay Value) +0.15(Percent Passing No. 200-sieve Pay Value)]}

Weighted Values Option B						
	1.0 Sieve	1/2 Sieve	3/8 Sieve	No. 4 Sieve	No. 200 Sieve	AC
Weight (%)	15	15	15	15	15	25

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Lot Pay Adjustment for Compaction Option A = (\$50.00) (Quantity) {[0.10(Percent Passing 1-inch sieve Pay Value) +0.10(Percent Passing 1/2 –sieve Pay Value) +0.10(Percent Passing 3/8-inch Pay Value) +0.10(Percent Passing No.4-sieve Pay Value) +0.10(Percent Passing No. 200-sieve Pay Value) +0.10(AC Pay Value) +0.40(Lane Density Pay Value)]-1.00}

Weighted Values Option A							
	1.0 Sieve	1/2 Sieve	3/8 Sieve	No. 4 Sieve	No. 200 Sieve	AC	Lane Density
Weight (%)	10	10	10	10	10	10	40

A C	
Pay Value	Deviation From JMF (%)
1.00	±0.3
0.95	±0.4
0.9	±0.5
(1)	≥±0.60

Lane Density		
Pay Value	ESAL Class 2	ESAL Class 3 or 4
1.05	93.0 - 96.0	93.0 - 96.0
1.00	91.0 - 92.9 96.1 - 96.5	91.0 - 92.9 96.1 - 96.5
0.95	90.0 - 90.9	90.0 - 90.9
0.90	89.0 - 89.9 96.6 - 97.0	89.5 - 89.9 96.6 - 97.0
0.85	97.1 - 98.5	-----
0.75	88.5 - 88.9	-----
(1)	<88.5 or >98.5	<89.5 or >97.0

Gradation		
Sieve	Pay Value	Deviation From JMF(%)
1 inch	105	0 - 4
	100	4.1 - 8
	95	8.1 - 10
	90	10.1 - 12
	(1)	≥12.1
1/2 inch	105	0 - 3
	100	3.1 - 6
	95	6.1 - 8
	90	8.1 - 10
	(1)	≥10.1
3/8 inch	105	0 - 2
	100	2.1 - 5
	95	5.1 - 7
	90	7.1 - 8
	(1)	≥8.1
No. 4	105	0 - 2
	100	2.1 - 5
	95	5.1 - 7
	90	7.1 - 8
	(1)	≥8.1
No. 200	105	0 - 0.5
	100	0.6 - 1.5
	95	1.6 - 2.0
	90	2.1 - 2.5
	(1)	≥2.6

(1) Conform to 402.05 except as follows

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The Department will define this level of quality as test results for Gradation and AC corresponding to the following pay values:

- 0.90 or greater for each individual sieve;
- 0.90 or greater for AC.

For Lane Density the Department will require removal and replacement only when the results for all 4 cores in a subplot (or all available cores in a partial subplot) are as follows:

- Less than 88.5 percent, or greater than 98.5 percent, of solid density for ESAL Class 2; or
- Less than 89.5 percent, or greater than 97.0 percent, of solid density for ESAL Class 3 or 4.

The Department will make payment for the installed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24903EC	CL2 ASPH BASE CK PG64-22	TON
24904EC	CL3 ASPH BASE CK PG64-22	TON
24905EC	CL4 ASPH BASE CK PG64-22	TON