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CALL NO. 201
CONTRACT ID NO. 262268
ADDENDUM # 1

Subject: CASEY COUNTY
NHPP 6000(361)
Letting December 10, 2026

1. Revised Special Notes p. 17-20 of 105.

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

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

Sincerely,



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

RM:mb
Enclosures

SPECIAL NOTE FOR THERMO STRIPING

Thermoplastic application will be required to be by ribbon gun at all locations that are to be applied over milled rumble strips in lieu of an extrusion application. See Section 714.03.01 of the current edition of the Standards and Specifications for Road and Bridge Construction.

SPECIAL NOTE FOR DGA AT GUARDRAIL END TREATMENTS

DGA shall be placed for guardrail end treatments pads at discretion of the project engineer.

Special Note for Experimental Bituminous Surface Mixture Containing High RAP Content and a Rejuvenator Product

County: Casey Route: US 127 Experimental Section Termini: South Bound Lane 5.091-6.156
County: Casey Route: US 127 Control Section Termini: South Bound Lane 4.091-5.091

1.0 General

1.1 Description. Rejuvenators are commonly used in asphalt mixtures with elevated Recycled Asphalt Pavement (RAP) contents to mitigate the effects of binder aging and improve cracking resistance. The Department is wanting to evaluate how rejuvenators affect the performance of bituminous surface pavement with a higher RAP content compared to a typical bituminous surface mixture that contains a lower amount of RAP. The final PG binder grade of the bituminous surface mixtures will also be evaluated by the Department to help determine how rejuvenators affect the pavement performance.

2.0 Rejuvenator

2.1 Rejuvenator Product. Rejuvenator is required to be used when producing the surface bituminous mixture for the experimental section which is described in section 3.2 of this special note. The Department has chosen the rejuvenator product Danox RAP 305 which is produced by KAO Chemicals from the list below to be used for the experimental section that is listed above. Substitution for a different rejuvenator or a product that is equivalent to the that is listed above will not be permitted.

Rejuvenator Company:	Cargill	Product Name:	Anova 1815
	Ingevity		Evoflex
	KAO Chemicals		Danox RAP 305

2.2 Blending. The rejuvenator is blended to the liquid asphalt binder prior to or during production of the asphalt bituminous mixtures. The rejuvenator that will be used will replace the liquid asphalt binder by weight. The following two methods of blending will be required to introduce the rejuvenator into the liquid asphalt binder: blending the rejuvenator to the liquid asphalt binder at an asphalt terminal prior to shipping to the production site OR the rejuvenator is injected into the liquid asphalt binder line after it passes the liquid asphalt binder pump and prior to entering the bituminous mixing drum with the use of an electronic injection system.

2.2.1 Terminal Blending. Blending the rejuvenator to the virgin asphalt binder at the terminal is permitted. Ensure the Department receives a sample of the virgin liquid asphalt binder PG 64-22, along with the lot number, that will be used for the blending process prior to blending the rejuvenator to the

liquid asphalt binder for Department's approval. The dosage rate of rejuvenator will be determined by the bituminous producers mix design and replace the virgin liquid asphalt binder PG 64-22 by weight. The amount of liquid asphalt binder must be determined by weight/volume prior to the introduction of the rejuvenator so that the correct amount of weight/volume of rejuvenator can be added so that it meets the design dosage rate. Ensure the tank is circulated and the rejuvenator is evenly distributed throughout the liquid binder. Prior to shipment to the asphalt bituminous plant location ensure the rejuvenator is incorporated into the liquid binder evenly throughout the tank. Provide weight/volume for each of the liquid asphalt binder and rejuvenator that was used for blending and calculations that show the final dosage rate of rejuvenator to Division of Materials prior to shipment.

2.2.2 Injection. An injection system is permitted to introduce the rejuvenating agent into the liquid asphalt binder pipeline after the liquid asphalt binder pump and before entering the asphalt bituminous mixing drum. The injection system shall meet section 401.02.04 current edition of the Standard Specification. The injection system shall have the ability to be calibrated and the amount of rejuvenator that has been used by weight/volume recorded or shown on a screen display during production and at the end of each day of production. Calibration of the injection shall be performed prior to production and conducted with Department's Division of Materials personnel. Document the daily amount of rejuvenator and liquid asphalt binder that was used during production and provide the information to the Division of Materials.

3.0 Control and Experimental Section

3.1 Control Section(s). The bituminous surface mixture that is required for the control section shall contain 15% RAP and PG 64-22 for the asphalt binder, without substitutions. Placement of the control section is listed in the title of this special note. The control section tonnage is included in the mainline surface mixture that is listed on the typical section as a bid item. There is no bid item for the control section, and it shall be incidental to the mainline surface bid item.

3.2 Experimental Section(s). The bituminous surface mixture that is required for the experimental section shall contain 30% RAP material by weight, the asphalt binder shall be a PG 64-22, and the rejuvenating product that is listed above, without substitutions. Placement of the experimental section is listed in the title of this special note. The experimental section tonnage is included in the mainline surface mixture that is listed on the typical section on used as a bid item. There is no bid item for the experimental section, and it shall be incidental to the mainline surface bid item.

4.0 Mix Design

4.1 Mix Design for Control Section. Perform the mix design for the volumetric, Ideal-CT and Hamburg values as according to section 402 and 403 of the current Standard Specifications for Road and Bridge Construction. Control section shall contain 15% RAP by weight which is based on the total aggregate and RAP weights combined that are used in the bituminous mixture and PG 64-22 for the asphalt binder to be used for the mix design and during production, no substitution is permitted.

4.1.1 Samples to be Submitted with Mix Design. Contrary to Kentucky Method 64-421-22 section 3.9.1.2.1 no matter the ESAL Class of the bituminous mixture sample all the ingredient aggregates, RAP, and asphalt binder as according to Kentucky Method 64-421-22 section 3.10 and submit them to Mixture Testing Section of the Division of Materials.

4.2 Mix Design for Experimental Section. Perform the mix design for the volumetric, Ideal-CT and Hamburg values as according to section 402 and 403 of the current Standard Specifications for Road and Bridge Construction. Experimental section shall contain 30% RAP by weight which is based on the total aggregate and

RAP weights combined that are used in the bituminous mixture, PG 64-22 for the asphalt binder to be used for the mix design, and rejuvenator listed above, no substitution is permitted.

4.2.1 Samples to be Submitted with Mix Design. Contrary to Kentucky Method 64-421-22 section 3.9.1.2.1 no matter the ESAL Class of the bituminous mixture sample all the ingredient aggregates, RAP, asphalt binder as according to Kentucky Method 64-421-22 section 3.10 and submit them to Mixture Testing Section of the Division of Materials. Also, provide three one-gallon samples, each of rejuvenator and asphalt liquid binder.

4.2.2 Rejuvenator Dosage. The dosage rate of the rejuvenator will be determined by the bituminous mix designer and a representative of the rejuvenator company. Submit documentation on how the dosage rate was determined along with any data that was used to determine the dosage rate when submitting the mix design. Record the dosage rate and the rejuvenator product name on the MixPack in the note section that can be found on the Design Data tab. The amount of rejuvenator that is determined by the dosage rate will replace the PG 64-22 asphalt binder by weight.

4.3 Gradation, Aggregate Sources, and Asphalt Binder Content. The gradation for the control and experimental mix design shall be comparable; approval shall rest with the Department. The aggregate ingredients shall be from the same sources for both the control and experimental section mix design. Also, the asphalt binder content shall be comparable, approval shall rest with the Department for the control and experimental section mix design.

5.0 Production.

5.1 Acceptance and Verification Testing. Perform all acceptance and verification testing according to section 402 and 403 of the current Standard Specification for Road and Bridge Construction. Contrary to section 402.03.02 C) perform a minimum of one process control test for AC, AV, VMA, Ideal-CT, gradation, and Ideal-RT, HT-IDT, or Hamburg and document the results on a separate AMAW for the control and experimental sections. The Department will accept the compaction of the control and experimental section(s) according to option B. According to Kentucky Method 64-450-22 the curing time for the Ideal-CT, Ideal-RT, and HT-IDT testing shall be two-hours for the bituminous surface that is produced for both the experimental and control sections. Document the rejuvenator name, the rejuvenator dosage percentage, and the total amount of rejuvenator that was used for every day of production for the surface mixture of the experimental section on the comment section of the Asphalt Mixture Acceptance Workbook (AMAW).

5.2 Material Sampling. Roadway samples will be required for the experimental and control sections which are contrary to Materials Field Sampling Manual (MFS) section 205 at the sampling frequency of 1 per 150 tons, or a fraction thereof. Two roadway samples shall be obtained for the control and experimental section and delivered to the Division of Materials within 48 hours after sample was taken at the project site.

5.3 Representative of the Rejuvenator Company. A representative of the rejuvenator company shall be present during the production of the experimental section to provide assistance when requested and/or answer any questions the Department and/or the Producer may have during the production of the experimental section.

5.4 Project Coordination. The prime contractor shall be responsible for all coordination with the rejuvenator supplier identified above to obtain necessary material at the time of production. KYTC/KTC officials will make the initial connection and identify the project as one of the experimental projects.

5.5 Representative of Kentucky Transportation Center (KTC). A representative(s) of KTC will be present at the production and project site during the production and placement of the control and experimental

surface mixtures. KTC will be obtaining samples, observing, and gathering data to conduct their research during production and placement of the control and experimental sections.

6.0 Payment. Any additional labor, testing, and testing equipment along with the amount of rejuvenator used to produce the mixture for the experimental section shall be considered incidental to the surface bid item for the mainline surface mixture listed in the typical section.