



# Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

April 19, 2018

SUBJECT: FAP Route 42 (IL 127)  
Project STP-V1XD(878)  
Section 1B-R-1  
Washington County  
Contract No. 76L36  
Item No. 53, April 27, 2018 Letting  
Addendum A

## NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Revised the Schedule of Prices
2. Revised page ii of the Table of Contents to the Special Provisions
3. Revised pages 4-7 of the Special Provisions
4. Added page 121 to the Special Provisions
5. Revised sheets 1, 2, 3, 4, 5, 6 and 8 of the Plans
6. Added sheets 8A, 9A, 9B and 9C to the Plans

Prime contractors must utilize the enclosed material when preparing their bid and must include any changes to the Schedule of Prices in their bid.

Very truly yours,

Jack A. Elston, P.E.  
Acting Bureau Chief  
Bureau of Design and Environment

A handwritten signature in black ink, appearing to read "Ted B. Walschleger P.E." with a small "P.E." to the right.

By: Ted B. Walschleger, P. E.  
Engineer of Project Management

cc: Jeffery Keirn, Region 5, District 8; Brian Pfeifer; D. Carl Puzey; Tim Kell

CWR/ck

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**HOT-MIX ASPHALT – LONGITUDINAL JOINT SEALANT (CBM)**

Add the following to Article 406.02 of the Standard Specifications.

“(d) Longitudinal Joint Sealant (LJS) ..... 1032”

Add the following to Section 1032 of the Standard Specifications.

“1032.12 **Longitudinal Joint Sealant (LJS)** Longitudinal joint sealant (LJS) will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, “Performance Graded Asphalt Binder Acceptance Procedure” with the following exceptions, Articles 3.1.9 and 3.4.1.4 of the policy memorandum will be excluded. The bituminous material used for the LJS shall be according to the following table. Elastomers shall be added to a base asphalt and shall be either a styrene-butadiene diblock or triblock copolymer without oil extension, or a styrene-butadiene rubber. Air blown asphalt, acid modification, or other modifiers will not be allowed. LJS in the form of pre-formed rollout banding may also be used.

Test	Test Requirement	Test Method
Dynamic shear @ 82°C (unaged), G*/sin δ, kPa	1.00 min.	AASHTO T 315
Creep stiffness @ -18°C (unaged), Stiffness (S), MPa m-value	300 max. 0.300 min.	AASHTO T 313
Ash, %	1.0 - 4.0	AASHTO T 111
Elastic Recovery, 100 mm elongation, cut immediately, 25°C, %	70 min.	ASTM D 6084 (Procedure A)
Separation of Polymer, Difference in °C of the softening point (ring and ball)	3 max.	ITP Separation of Polymer from Asphalt Binder”

Add the following to Article 406.03 of the Standard Specifications.

- “(j) Longitudinal Joint Sealant (LJS) Pressure Distributor (Note 2.)
- “(k) Longitudinal Joint Sealant (LJS) Melter Kettle (Note 3.)

Note 2. When a pressure distributor is used to apply the LJS, the distributor shall be equipped with a heating and recirculating system along with a functioning auger agitating system or vertical shaft mixer in the hauling tank to prevent localized overheating. The distributor shall be equipped with a guide or laser system to aid in proper placement of the LJS application.

Note 3. When a melter kettle is used to transport and apply the LJS longitudinal joint sealant, the melter kettle shall be an oil jacketed double-boiler with agitating and recirculating systems. Material from the kettle may be dispensed through a pressure feed wand with an applicator shoe or through a pressure feed wand into a hand-operated thermal push cart.”

Revise Article 406.06(g)(2) of the Standard Specifications to read:

“(2) Longitudinal Joints. Unless prohibited by stage construction, any HMA lift shall be complete before construction of the subsequent lift. The longitudinal joint in all lifts shall be at the centerline of the pavement if the roadway comprises two lanes in width, or at lane width if the roadway is more than two lanes in width.

When stage construction prohibits the total completion of a particular lift, the longitudinal joint in one lift shall be offset from the longitudinal joint in the preceding lift by not less than 3 in. (75 mm). The longitudinal joint in the surface course shall be at the centerline of the pavement if the roadway comprises two lanes in width, or at lane width if the roadway is more than two lanes in width.

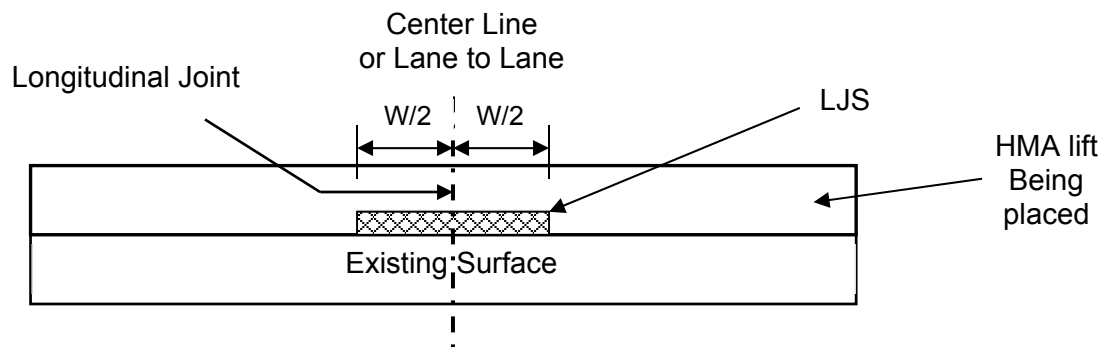
A notched wedge longitudinal joint shall be used between successive passes of HMA binder course that has a difference in elevation of greater than 2 in. (50 mm) between lanes on pavement that is open to traffic.

The notched wedge longitudinal joint shall consist of a 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the lane line, a 9 to 12 in. (230 to 300 mm) wide uniform taper sloped toward and extending into the open lane, and a second 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the outside edge.

The notched wedge longitudinal joint shall be formed by the strike off device on the paver. The wedge shall then be compacted by the joint roller.

When the use of longitudinal joint sealant (LJS) is specified, it shall be applied for all lifts of paving as shown on the plans. The surface to which the LJS is applied shall be dry and cleaned of all dust, debris, and any substances that will prevent the LJS from adhering. Cleaning shall be accomplished by means of a sweeper/vacuum truck, power broom, air compressor or by hand. The LJS may be placed before or after the tack or prime coat. When placed after the tack or prime coat, the tack or prime shall be fully cured prior to placement of the LJS.

The LJS application shall be centered under the joint of the HMA lift being constructed within 2 in. (50 mm) of the joint.



Revised 4-19-18

The width and minimum application rate shall be according to the following table:

LJS Application Rate Table		
Overlay Thickness in. (mm)	LJS Width "W" in. (mm)	Application Rate <sup>1/</sup> lb/ft (kg/m)
HMA Mixtures <sup>2/</sup>		
3/4 (19)	18 (450)	0.88 (1.31)
1 (25)	18 (450)	1.15 (1.71)
1 1/4 (32)	18 (450)	1.31 (1.95)
1 1/2 (38)	18 (450)	1.47 (2.19)
1 3/4 (44)	18 (450)	1.63 (2.43)
2 (50)	18 (450)	1.80 (2.68)
2 1/4 (60)	18 (450)	1.96 (2.92)
2 1/2 (63)	18 (450)	2.12 (3.16)
2 3/4 (70)	18 (450)	2.29 (3.41)
3 (75)	18 (450)	2.45 (3.65)
3 1/4 (83)	18 (450)	2.61 (3.89)
3 1/2 (90)	18 (450)	2.78 (4.14)
3 3/4 (95)	18 (450)	2.94 (4.38)
4 (100)	18 (450)	3.10 (4.62)
SMA Mixtures <sup>2/</sup>		
1 1/2 (38)	18 (450)	1.26 (1.88)
1 3/4 (44)	18 (450)	1.38 (2.06)
2 (50)	18 (450)	1.51 (2.25)

1/ The application rate has a surface demand for liquid included within it. The nominal thickness of the LJS may taper from the center of the application to a lesser thickness on the edge of the application. The width and weight/foot (mass/meter) shall be maintained.

2/ In the event of a joint between an SMA and HMA mixture, the SMA application rate will be used.

The Contractor shall furnish to the Engineer a bill of lading for each tanker supplying material to the project. The application rate of LJS will be verified within the first 1000 ft (300 m) of the day's scheduled application length and every 12000 ft (3600 m) the remainder of the day. For projects less than 3000 ft (900 m), the rate will be verified once. A suitable paper or pan shall be placed at a random location in the path of the placement for the LJS. After application of the LJS, the paper or pan shall be picked up and weighed. The weight per foot will be calculated. The tolerance from the plan target weight/foot (mass/meter) from the LJS Application Rate Table shall be ± 15 percent. The Contractor shall replace the LJS in the area where the sample was taken.

A one quart sample shall be taken from the pressure distributor or melting kettle at the jobsite once for each contract and sent to the Central Bureau of Materials.

The LJS shall be applied in a single pass with a pressure distributor, melter kettle, or hand applied from a roll for HMA lifts up to 2 in. (50 mm) in thickness. The LJS shall be applied in two passes for HMA lifts between 2 and 4 in. (50 and 100 mm) in thickness. At the time of installation the pavement surface temperature and the ambient temperature shall be a minimum of 40 °F (4 °C) and rising.

The LJS shall be applied at a width of not less than or greater than 1 ½ in. (38 mm) of the width specified. If the LJS flows more than 2 in. (50 mm) from the initial placement width, LJS placement shall stop and remedial action shall be taken.

When starting another run of LJS placement, suitable release paper shall be placed over the previous application of LJS to prevent doubling up of thickness of LJS.

The LJS shall be suitable for construction traffic to drive on without pickup or tracking of the LJS within 30 minutes of placement. If pickup or tracking occurs, LJS placement shall stop and damaged areas shall be repaired.

Prior to start of paving of pavement course, ensure the paver end plate and grade control device is adequately raised above the finished height of the LJS.

The LJS shall not flush to the final surface of the HMA pavement.”

#### Stage Construction for SN 098-0023

For Stage 1 Construction on SN 098-0023, the first pass of the LJS shall be applied at a 9” width under the proposed Stage 1 HMA overlay, adjacent to the longitudinal joint of the HMA overlay.

For Stage 2 Construction on SN 098-0023, the second pass of the LJS shall be applied at a 9” width under the proposed Stage 2 HMA overlay, adjacent to the longitudinal joint of the HMA overlay.

The 9” width placement method would reduce the LJS application rate proportionally to the adjusted width per pass.

Add the following paragraph after the second paragraph of Article 406.13(b) of the Standard Specifications.

“Bituminous material for longitudinal joint sealant will be measured for payment in place in feet (meters).

When two separate 9” width passes are required for construction, each pass of the LJS will be measured separately for payment in place in feet (meters).”

### **AGGREGATE SHOULDERS (SPECIAL)**

Description: This work will consist of constructing aggregate shoulder widening to construct the type I guardrail terminal widening as shown on Highway Standard 630301, the notes and details in the plans, and in accordance with Section 481 of the Standard Specifications except as modified herein.

Materials: The aggregate shoulder shall consist of IDOT gradation CA-6 in accordance with Section 1004 of the Standard Specifications.

Construction Methods: The aggregate shoulders shall be constructed in accordance with Section 481.

Opening to Traffic: The road shall be open to traffic according to Article 701.07.

Method of Measurement: This work will be measured for payment in square yards according to Article 311.08. The area measured for payment will only include the surface area constructed at a slope of 1:10 or flatter.

Basis of Payment: This work will be paid for at the contract unit price per square yard for AGGREGATE SHOULDERS (SPECIAL).

### **TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)**

Description: This work will consist of constructing Traffic Barrier Terminals, Type 6, which shall be modified for connection to existing concrete structures at the locations shown on the plans, as directed by the Engineer, in accordance with sections 630 & 631 of the Standard Specifications.

Construction Methods: Work under this item shall be constructed as shown on the details provided in the plans.

Basis of Payment: This work will be measured and paid for at the contract unit price per each for TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL) which price shall include all labor, equipment and material necessary to satisfactorily complete the work as described herein and as shown on the plans.