

**KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, EDITION OF 1990**

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 the Kansas Department of Transportation.

Create a new Section in Division 800:

SAW AND SEAL JOINTS (HMA OVERLAY)

1.0 DESCRIPTION.

Provide materials for, locate, saw, clean, and seal joints in the bituminous overlay at the locations shown in the Contract Documents or as designated by the Engineer.

BID ITEM

Saw and Seal Joint (HMA)

UNIT

Lineal Foot (meter)

2.0 MATERIALS.

Provide hot type joint sealing compound complying with Special Provision 90P/M-192 (latest revision).

Provide backer rod recommended by the manufacturer of the hot type joint sealing compound.

3.0 CONSTRUCTION REQUIREMENTS.

a. Equipment

(1) Use a down-cutting pavement saw that will cut to the specified width and depth without damaging the adjacent pavement surface.

(2) Use an air compressor having a minimum capacity of 100 cu ft per minute at 90 psi (2.8 cu m per minute at 620 kPa). The minimum hose inside diameter is 5/8 inch (16 mm). The maximum length of hose from the compressor to the attachment is 60 ft (18 m). Provide oil-free air with the air compressor. Equip the compressor with a moisture trap designed to reduce the amount of moisture in the compressed air.

(3) Use an applicator head that is capable of completely filling the joint with sealant from the bottom up.

(4) Use a squeegee that leaves a band of sealant a maximum of 2.5 inch (65 mm) wide on the pavement surface.

(5) Use equipment to heat the sealant as recommended by the manufacturer.

b. General.

- (1) Saw, clean and seal joints in a continuous operation. Seal each joint immediately after cleaning it with compressed air.
- (2) Do not damage the bituminous overlay when sawing the joints.
- (3) Begin the saw and seal operation no sooner than 48 hours after placing the surface course but no later than the end of the construction season (as established for asphalt paving) or project completion, whichever is earlier.
- (4) Continue the saw and seal operation until each joint is sealed.
- (5) Do not saw and seal joints when the ambient and pavement temperature are less than 40° F (4° C), or when the pavement is wet.

c. Sawing the Joint.

- (1) Locate existing joints/cracks accurately (before resurfacing) by pins or stakes, or other method approved by the Engineer.
- (2) Pre-mark saw cuts on the finished bituminous surface by chalk line or other method approved by the Engineer.
- (3) Saw joints directly above the joint/crack in the existing pavement. Saw cuts must be within 1 inch (25 mm) horizontally from the joint/crack below.
- (4) Saw joints dry or wet, and obtain the full depth and width of the saw cut in one single pass. Saw cuts may be made full-depth, full-width or as a narrower deep saw cut with wider reservoir above.
- (5) Saw transverse joints the entire lane width plus an additional 12 inch (300 mm) into each shoulder.
- (6) Configure the joint as shown in Figures 1 or 2:

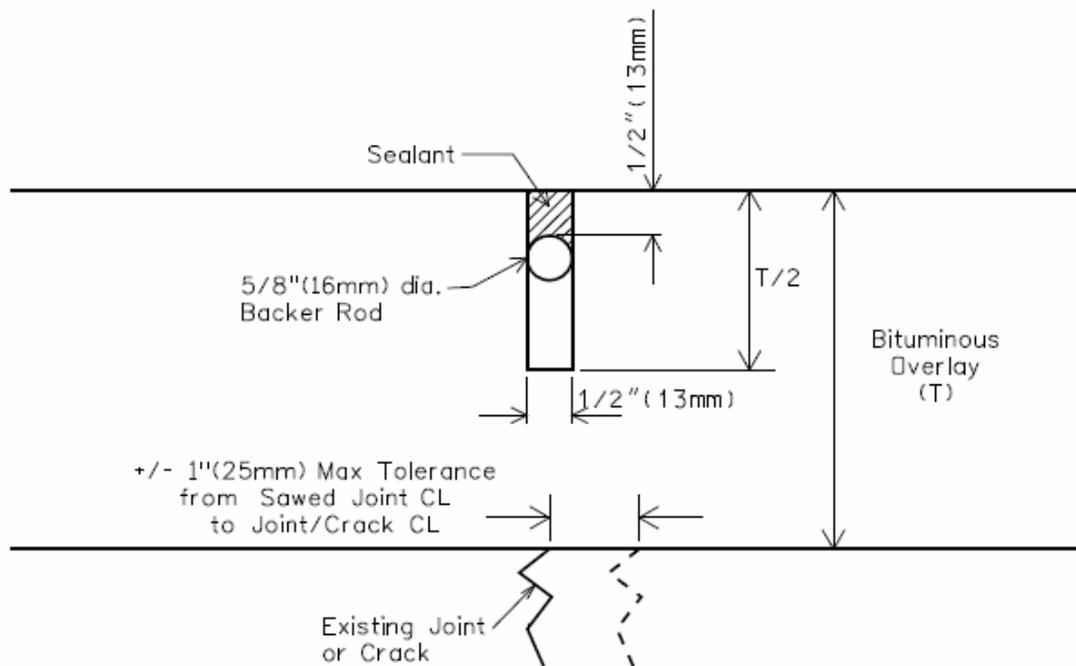


Figure 1. Full-depth, full-width saw cut

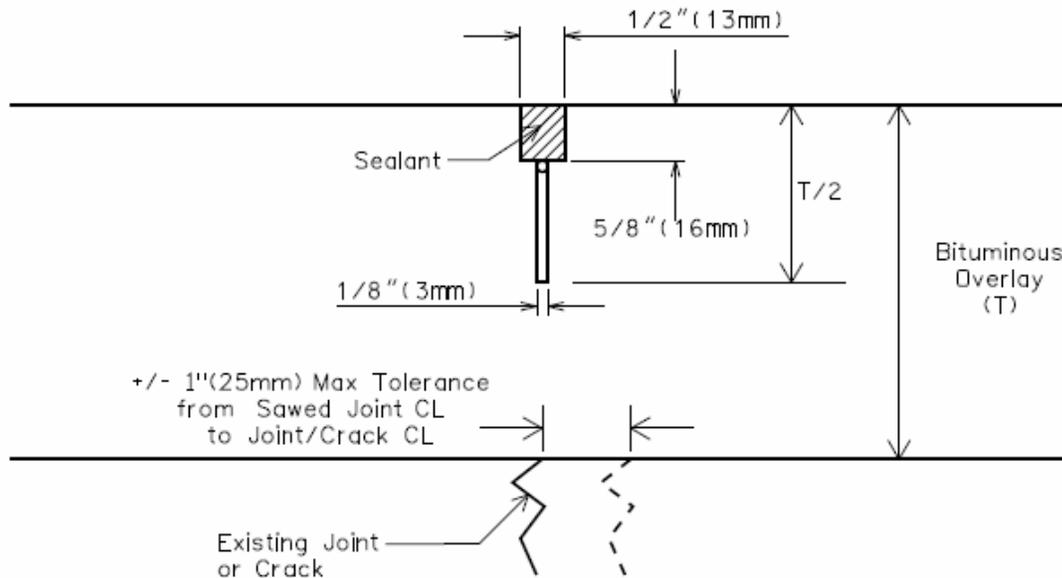


Figure 2. Deep saw cut with reservoir

d. Cleaning the Sawed Joint.

(1) For Dry Sawing: Thoroughly clean the sawed joints with a sufficient amount of compressed air to remove dirt, dust and deleterious material.

For Wet Sawing: Flush the sawed joint with high pressure water until the water runs clear. Clean and dry joint by the same method as dry sawing.

(2) Provide the project Engineer with two copies of the sealant manufacturer's recommendations for preparation and application of the sealant.

e. Sealing the Joint.

(1) Install backer rod uniformly at the specified depth by a method approved by the Engineer. If using the *deep saw cut with reservoir* style joint, backer rod is not mandatory but means must be taken to ensure joint sealant does not enter deep saw cut.

(2) Heat joint sealant (with equipment recommended by the manufacturer) in accordance with the manufacturer's recommendation.

(3) Apply hot-poured sealant through a nozzle which must project into the sawed joint, filling from the bottom up. Apply sealant to completely fill the joint.

(4) Squeegee the sealant overband such that the width of the overband is less than 2.5 inch (65 mm) wide on the pavement surface.

(5) Keep traffic off of the sealed joints until the sealant will not track. If traffic must be placed on freshly sealed joints, cover the joints with fine sand or tissue paper.

4.0 MEASUREMENT AND PAYMENT

Saw and Seal Joint will be measured by the length in linear feet (meter).

Payment for "Saw and Seal Joint (HMA)" at the Contract unit price will be full compensation for the specified work.

5-10-05 M&R (AJG)

051010000	HOT JOINT SEALING COMPOUND	LBS	90P192-R*	PRCA
	*Latest Revision			