

400 FLEXIBLE PAVEMENT

ITEM 418 – SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS

- 418.01 Description**
- 418.02 Materials**
- 418.03 Construction Details**
- 418.04 Method of Measurement**
- 418.05 Basis of Payment**

418.01 Description. This work consists of saw cutting and sealing the finished surface of the asphalt concrete pavement and shoulders directly over and in line with transverse joints in the underlying Portland Cement Concrete Pavement.

418.02 Materials. Use joint sealant conforming to 705.04 and approved by the Engineer before shipment to the project. Use backer rod material that is approved by the Engineer, as required.

418.03 Construction Details. Saw cut, clean and seal transverse joints as a continuous operation. If the surface course is not placed within 5 days after the intermediate course is placed, make a 1/8 inch (3.2 mm) wide saw cut that is one fourth the depth of the intermediate course over contraction joints and a 1/2 inch (6.4 mm) wide cut that is one-fourth the depth of the intermediate course over expansion joints.

Saw joints in the surface course as soon as the saw can be operated without damaging the asphalt concrete, but no later than 48 hours after the asphalt concrete is placed.

Locate the sawed joints directly over each existing transverse pavement joint, including joints at full-depth pavement repairs. Accurately locate joints with pins or stakes before paving. Pre-mark the saw cut on the new asphalt surface with a chalk line or other acceptable method. The Engineer must approve details of the method for locating and accurately marking the proposed saw cuts before starting any resurfacing operations.

Saw all transverse joints and create a joint sealant reservoir according to the following table:

Measurement	Inches (mm)
Saw cut depth	2 (50)
Backer rod diameter	1/2 (13)
Joint sealant reservoir Width	3/8 (9.5)

<i>Depth</i>	<i>3/4 (19)</i>
<i>Recess below surface course</i>	<i>1/8 (3.2)</i>

The Contractor may make one pass to achieve the full width and depth of the saw cut. Use either dry or wet cutting.

Clean dry sawed joints with compressed air to remove dirt, dust, or deleterious matter. Use an air compressor with a minimum rated capacity of 100 psi (689 kPa) and sufficient hose for continuous cleaning operations.

Clean wet sawed joints with a water blast to remove sawing slurry, dirt, or deleterious matter. Wet sawed joints shall be dried with a propane torch or lance unit capable of producing a blast of hot air at 2,000°F (1,093°C) and with a gas velocity of 2,000 feet per second (610 m/s).

Extend the transverse saw cut joints the full width of the asphalt over the concrete pavement and paved shoulders.

Do not allow traffic to knead together or damage the sawed joints before sealing.

Heat joint sealant material in a kettle or melter constructed as a double boiler, with the space between the inner and outer shells filled with oil or other heat transfer medium. Provide positive temperature control and mechanical agitation.

Heat the material according to the manufacturer's recommendation. Consider the first gallon of material that flows out of the applicator wand at the start of the day spoil, and discard it into a container so designated.

After cleaning, place the backer rod in the sawed joints, then immediately seal the joints with hot-poured sealant applied through a nozzle that must project into the sawed joint, filling from the bottom up. Ensure that the seal completely fills the joint such that after cooling, the level of the seal is not greater than 1/8 inch (3.2 mm) below the pavement surface. Fill any depression in the seal greater than 3/16 inch (4.8 mm) to the specified limit by adding additional hot poured sealant. Take care in the sealing of the joints so that the final appearance will present a neat line.

418.04 Method of Measurement. *The quantity to be paid will be measured by the number of linear feet (meter) of joints sawed and sealed.*

418.05 Basis of Payment. *The unit price per linear foot (meter) for sawing and sealing asphalt concrete pavement joints shall include the cost of all labor, materials, and equipment necessary to complete the work, including the furnishing and placing of the joint sealant material.*

<i>Item</i>	<i>Unit</i>	<i>Description</i>
418	Linear Foot (Meter)	Sawing and Sealing Asphalt Concrete Pavement Joint