

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
**WARRANTY WORK REQUIREMENTS FOR HOT MIX ASPHALT CRACK
TREATMENT (CAPITAL PREVENTIVE MAINTENANCE)**

CFS:EMC

1 of 3

APPR:KPK:DBP:06-23-16
FHWA:APPR:06-23-16

a. Description. This special provision must be used in conjunction with 12SP-500B to perform warranted, hot mix asphalt (HMA) surface crack treatment. The work consists of furnishing all labor, equipment, and materials necessary to treat cracks in HMA surfaces using the following operations.

1. Saw/Rout and Seal. This operation consists of sawing or routing a reservoir at the crack of an existing HMA surface, cleaning the sawn surface, and placing sealant into the reservoir to prevent the intrusion of water into the pavement structure.

2. Overband. This operation consists of cleaning the crack in an existing HMA surface and placing material into and over the crack to eliminate water infiltration.

b. Limits of Warranted Work. The warranted work includes all HMA crack treatment applications on driving lanes and shoulders within the project limits unless otherwise indicated on the proposal.

c. Warranty Period. The length of warranty will be 2 years from the Acceptance Date of Warranted Work.

d. Amount of Warranty Bond. Supply a warranty bond equal to 100 percent of the warranted work for HMA crack treatment.

e. Materials. Provide materials in accordance with subsection 502.02, of the Standard Specifications for Construction with the following modification:

1. Delete subsection 502.02.B.1 of the Standard Specifications for Construction.

f. Construction. Ensure construction is in accordance with subsection 502.03, of the Standard Specifications for Construction with the following modifications:

1. Delete the second sentence of the second paragraph of subsection 502.03.D.2 of the Standard Specifications for Construction and replace with the following: "Apply overband 4 inches wide, $\pm 1/4$ inch and from 1/8 inch to 3/16 inch thick."

2. Add the following to the end of subsection 502.03.D.2.b. of the Standard Specifications for Construction: "Allow to cure for a minimum of 3 days prior to placement of micro-surface."

3. Add the following to the end of subsection 502.03.D.2.c of the Standard Specifications for Construction: "Allow to cure for a minimum of 7 days prior to placement of chip seal."

4. Add the following to the end of subsection 502.03.D.2.d of the Standard Specifications for Construction: "Allow to cure for a minimum of 14 days prior to placement of Paver Placed Surface seal."

5. Add the following to the end of subsection 502.03.D.2.e of the Standard Specifications for Construction: "Allow to cure for a minimum of 14 days prior to placement of HMA Ultra-thin Overlay."

6. Initial Acceptance. At the construction completion of the HMA Crack Treatment, or a portion as determined by the Department, the Department and Contractor will review the crack treatment for compliance with the contract and the project specifications. If the crack treatment is determined by the Department to not be in compliance, then the Contractor must repair and make good at its own expense any and all defects. The Department and the Contractor will document and execute the initial acceptance on a form furnished by the Department when the crack treatment is determined by the Department to be in compliance. This date is then the Acceptance Date of Warranted Work. A copy of initial acceptance will be sent to the Contractor's Warranty Bond surety agent by the Department.

The Department may accept the HMA Crack Treatment and begin the warranty period, excluding any area needing corrective work, due to seasonal limitations.

g. Measurement and Payment. Delete subsection 502.04 of the Standard Specifications for Construction in its entirety and replace it with the following:

The completed work, as described, will be measured and paid for at the contract unit price using the following pay items:

Pay Item	Pay Unit
HMA Crack Treatment, Lane, Warranty.....	Lane Mile
HMA Crack Treatment, Ramp, Warranty	Lane Mile

HMA Crack Treatment, Lane, Warranty includes all materials, equipment, labor for preparing, filling and sealing the cracks and complying with all requirements including the warranty, for full coverage as specified on the plans. **HMA Crack Treatment, Lane, Warranty** will be measured along the centerline of each lane and will include the traffic lane, as defined in the Lane Mile Inventory and any adjacent paved shoulders.

HMA Crack Treatment, Ramp, Warranty includes all materials, equipment, labor for preparing, filling and sealing the cracks and complying with all requirements including the warranty, for full coverage as specified on the plans. **HMA Crack Treatment, Ramp, Warranty** will be measured along the ramp centerline beginning at the 2 foot gore point including shoulders

h. Warranty Requirements. If any of the following minimum performance criteria are not met, warranty work is required. The warranty work must be performed prior to conclusion of the warranty period or within such other time frame as agreed to by the Department and the Contractor, unless safety concerns dictate otherwise.

One segment (528 feet in length) per one lane mile will be selected to review in detail. One lane will be reviewed for measuring the performance of the crack treatment. One segment will be

reviewed for any projects or remaining portions of a project less than 1 mile, but greater than 2 segments (1056 feet).

A separate measurement and calculation of treatment failure will be made for material placed in a saw and seal configuration and material placed in an overband configuration. The measurement will define the amount of failure as a percentage of the total length of cracks in the segment by the following formula:

1. Single Segment Failure. The allowable threshold limit for material failure must not exceed 30 percent of any one segment.

Corrective action for this parameter requires the Contractor to reseal the entire deficient segment plus all other deficient segments that exceed 30 percent failure within that mile, including shoulders unless the shoulders, or portions thereof, were exempted in the proposal from treatment due to a high concentration of cracks.

2. Multiple Segment Failure. The allowable threshold limit for material failure must not exceed 10 percent of all segments evaluated.

Corrective action for this parameter requires the Contractor to reseal the entire project location, including shoulders unless the shoulders, or portions thereof, were exempted in the proposal from treatment due to a high concentration of cracks.

3. Catastrophic Failure. If at any time during the warranty period, 30 percent of the cracks treated as part of this contract fail, the Contractor will correct all failures as soon as weather conditions permit.