Illinois Department of Transportation Bureau of Materials

Qualified Product List for

Hot-Mix Asphalt Material Transfer Devices

October 7, 2022

This list supersedes the November 24, 2021 list.

Bureau of Design and Environment Special Provision for Material Transfer Device

Category I Devices			
Manufacturer	Manufacturer Address	MTD Model No.	
Astec Industries Co.	800 Manufacturers Road Chattanooga, Tennessee, 37405 USA	Roadtec (Astec) SB-3000	
		Roadtec (Astec) SB-2500	
		Roadtec (Astec) SB-1500	
Weiler Inc.	815 Weiler Dr. Knoxville, Iowa, 50138 USA	Weiler E2850	
		Weiler E1650A	
BOMAG Americas Inc.	125 Blue Granite Pkwy Ridgeway, South Carolina, 29130 USA	Cedarapids CR662RM	

Category II Devices			
Manufacturer	Manufacturer Address	MTD Model No.	
Astec Industries Co.	800 Manufacturers Road Chattanooga, Tennessee, 37405 USA	Roadtec MTV-1105e	
Wirtgen Group Inc.	6030 Dana Way Antioch, Tennessee, 37013 USA	Vögele MT 3000-2i	
BOMAG Americas Inc.	125 Blue Granite Pkwy Ridgeway, South Carolina, 29130 USA	Cedarapids CR662RM	

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Scope and Procedure for Qualified Product List

A. Scope

Interstate and full depth HMA contracts are required to include the Bureau of Design and Environment (BDE) Special Provision for Material Transfer Device. The special provision addresses the use and payment for Material Transfer Devices (MTD's). Conditions exist where different categories of MTD's are allowed. This qualified equipment list details the qualification and categorization procedure and lists the devices currently included in each category.

B. Procedure

The following items are required for the equipment qualification and categorization process:

1. MTD Manufacturer Documentation and Manufacturer Confirmation Letter. The letter shall state the MTD meets IDOT requirements listed below. The Manufacturer shall send this letter to:

Illinois Department of Transportation Central Bureau of Materials Attn: Brian Hill 126 E. Ash St. Springfield, IL 62704-4766

2. Thermal imaging evaluation using the IDOT MOBA PAVE-IR System. The Manufacturer shall coordinate with a Contractor to use the device. The Manufacturer and Contractor shall notify the District, Central Bureau of Materials (CBM), and Central Bureau of Construction (CBC) to set up the thermal imaging evaluation. The thermal imaging evaluation will be completed on two (2) projects paving IL-19.0 mm binder mixtures greater than one (1) centerline mile in combined length. In addition, the two (2) projects will need to meet one (1) of the following criteria: two (2) different IL-19.0 mm mixture designs produced at the same plant, the same IL-19.0 mm mixture design produced at two (2) different plants, or two (2) different IL-19.0 mm mixture designs produced at two (2) different plants.

The IDOT MOBA PAVE-IR System will be mounted on a Contractor paver by Contractor personnel prior to the evaluation. CBM personnel will be onsite to provide guidance. The Contractor shall provide a mechanic to assist in mounting the IDOT MOBA PAVE-IR System on the paver. The Contractor shall also provide a thermal imaging operator to create, save, and send daily paving files to IDOT CBM personnel. Proper paving practices shall be maintained according to Standard Specifications Article 406.06. This includes paving speeds less than 50 ft/min with a minimal number of paver stops.

The daily data files produced from the IDOT MOBA PAVE-IR System will be analyzed using VETA software. This software is available at the following link: http://www.intelligentconstruction.com. The data will be analyzed using 150 ft. sublots. The Data Filter will be a minimum temperature greater than or equal to 200°F. The Operation Filter will be a Cold Edge and Ride Bracket Filter. The analysis will evaluate all collected data including paver stops greater than or equal to 1.0 min. Representatives from CBC and CBM will evaluate and make qualification decisions regarding the MTD based on the visual assessment and the final VETA results. The Department reserves the right to take cores to include in the qualification process.

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The average sublot temperature standard deviation calculated in VETA shall be less than or equal to the value shown in Table 1 prior to qualification.

Table 1. Maximum Average Temperature Standard Deviation

	No Paver Stops Removed
Average Sublot Temperature Standard Deviation (°F)	10.5

The MTD category will be determined by the Department. The Department will complete an examination of the MTD specifications including contact pressure and central surge hopper capacity. If the MTD has a central surge hopper of sufficient capacity to mix upstream HMA with downstream HMA, the device can be reviewed for Category I designation. If the MTD has a maximum contact pressure less than 25 psi, the device can be reviewed for Category II designation. A MTD can qualify for both category designations.