HMA Material Transfer System - FUSP 03SP502(Y)

This construction advisory serves as clarification for an acceptable paver hopper insert, as required by FUSP 03SP502(Y), or other material transfer device specifications requiring a paver hopper insert. Specification FUSP 03SP502(Y) states, “A paver hopper insert with a minimum capacity of 15 tons must be provided and installed in the paver for the system and must be kept at least 1/3 full at all times”. The specification does not allow the paver hopper to be modified to meet the tonnage capacity required of the hopper insert. Hopper inserts are designed in such a manner that they provide mass flow of the HMA to the flow-gates of the paver. Mass flow of HMA should eliminate any dead zones where material accumulates and cools, and eventually may slough off into the flow-gates of the paver creating chunks in the paving operation. Simple modifications to a paver hopper insert to increase the capacity do not allow for mass flow; however, simple modifications can create dead zones and allow sloughing of cold material into the flow-gates.

The paver hopper insert must be constructed of a material that is stiff enough to maintain its shape when self supported. Section 502.03 of the 2003 Standard Specifications for Construction state, “Provide safe and environmentally acceptable equipment that can produce a specification pavement”. The contractor will supply the engineer with the details of the hopper, including material type, dimensions and capacity prior to being used on the project in accordance with Section 104.01 of the 2003 Standard Specifications for Construction. The engineer will approve the use of any proposed paver hopper insert prior to use on the project.

These requirements must be enforced to maintain statewide consistency of specifications. Please share this information with MDOT project staff and consultants performing construction engineering.