

# INDIANA DEPARTMENT OF TRANSPORTATION

## INTER-DEPARTMENT COMMUNICATION



Standards & Specifications Section -- Room N642  
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### **DESIGN MEMORANDUM No. 99-12 TECHNICAL ADVISORY**

**TO: All Design, Operations, and District Personnel, and Consultants**

**FROM: /s/ Richard L. VanCleave**  
**Richard L. VanCleave**  
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**Contracts and Construction Division**

**SUBJECT: Hot Mix Asphalt (HMA) Resurface Program**  
**Indiana Design Manual**  
**Section 52-3.0**

**EFFECTIVE: All Projects On Lettings After January 1, 2000**

Currently there are misunderstandings regarding the design of HMA projects.

Design and contract document preparation procedures for HMA resurfacing projects are currently contained in Chapter 52 of the Indiana Design Manual (IDM). HMA resurfacing projects should be designed as either structural, functional or preventive maintenance overlays.

The following defines the typical scope of work to be performed for each type of overlay.

### **STRUCTURAL OVERLAYS**

Structural overlays are to be incorporated when the existing pavement structure is deemed insufficient to address the needs of the project. Geometric and safety upgrading should be included in the project and should be based upon IDM 3R or 4R requirements as appropriate.

## **FUNCTIONAL OVERLAYS**

A functional overlay is a HMA overlay to correct deficiencies such as roughness or poor frictional properties. The intent is to improve the roadway serviceability by correcting damage caused by traffic and environmental conditions. Functional HMA overlays typically consist of single or multiple courses up to a total maximum thickness of 75 mm, with or without milling.

Geometric and roadside safety based on 3R requirements must be evaluated and incorporated into the project or initiated in a separate stage-construction project within two years following completion of the resurfacing project. Staged geometric or safety improvements should also be included in the initial project mini-scoping report.

If the overlay creates conditions which adversely affect safety features such as the height of guardrail and guardrail end treatments or create pavement drop-offs in excess of 40 mm, corrective action must be included in the initial resurfacing project.

## **PREVENTATIVE MAINTENANCE OVERLAYS**

Preventative maintenance overlays consist of pavement surface treatments used to preserve and extend the service life of pavements. Preventative maintenance overlays are limited to a maximum of 40 mm in total depth, with or without milling. Any new design features which do not meet INDOT criteria created by the project, or existing ones made worse, must be corrected or covered by an exception because such action changes the project as originally built.

## **PAVEMENT MANAGEMENT SYSTEM**

The INDOT Pavement Management System should be used to determine the needs of the pavement and to prepare a mini-scoping report to document the condition of the pavement prior to selecting the appropriate type of overlay design.

## **FEDERAL FUNDING**

Structural, functional or preventative maintenance overlays are eligible for Federal-aid funding on any road except those functionally classified as local or rural minor collectors.

The functional classification of local or state roads may be obtained by contacting the Highway Inventory and Systems Unit in the INDOT Roadway Management Division.