



INDIANA DEPARTMENT OF TRANSPORTATION

Design Memo No. 20-01

January 7, 2020

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

FROM: /s/ Kumar Dave
Kumar Dave
Manager, Pavement Engineering Office
Pavement Design Division

SUBJECT: Pavement Design - *Indiana Design Manual* reorganization

REVISES: IDM Chapter 304

EFFECTIVE: Pavement Design Approval on or after January 7, 2020

Indiana Design Manual Chapter 304, Comprehensive Pavement Analyses, has been updated to reflect current practice and reorganized into a standalone Part 6. Part 6, Pavement Design, is structured as follows

Chapter 601 – Pavement Design (introduction, history, philosophy, and design)
Chapter 602 – Pavement Types
Chapter 603 – Pavement Distress, Repair, and Widening
Chapter 604 – Pavement Testing and MEPDG
Chapter 605 – Pavement Project Elements
Chapter 606 – Life-Cycle Pavement Cost Analysis
Chapter 607 – Pavement Pay Items

A brief summary of the significant changes in the new chapters is included on the following pages.

Pavement designs approved prior to this memo need not be resubmitted. Questions regarding project-specific pavement designs should be directed to the appropriate Central Office Pavement Engineer. General questions should be directed to Kumar Dave, Office of Pavement Engineering Manager at kdave@indot.in.gov.

Old Section Number	New Section Number	Revision Summary
304-1.0 INTRODUCTION	601-1.0	Added new language regarding the objective of designing for least cost of ownership.
304-2.0 HISTORY	601-2.0	Moved to new section
304-3.0 ABBREVIATIONS	601-3.0	Updated to include abbreviations for terms used throughout Part 6
304-4.0 INDOT PAVEMENT ANALYSES PHILOSOPHY	601-4.0	Updated to include the expectation for pavement design analysis and new evaluation requirements
304-5.0 PAVEMENT DESIGN DEVELOPMENT	601-5.0	Updated and added clarifying language to the INDOT pavement design development process. Updated the LPA development process to exclude INDOT review in certain situations.
304-6.0 PAVEMENT PROJECT CATEGORIES	602-1.0	Added details for new treatment types used in Indiana and when each is applicable. Added clarifying language for existing treatment types.
304-7.0 PAVEMENT TYPE SELECTION	602-2.0	
304-8.0 PAVEMENT TYPES	602-3.0	Updated details regarding different pavement types and their individual components and elements. Updated the types of acceptable pavement layers in both flexible and rigid pavements added - including, but not limited to, drainage and separation layers and layer thickness targets.
304-9.0 PAVEMENT DISTRESS	603-1.0	Moved to new section
304-10.0 PAVEMENT MILLING	603-2.0	Moved to new section
304-11.0 PAVEMENT PATCHING	603-3.0	Detailed pavement patching for both HMA, PCCP, and composite pavements. Updated pavement patching details and descriptions.
304-12.0 PAVEMENT WIDENING	603-4.0	Detailed pavement widening and the pavement type to select based on widening width. Updated and added clarifying language to improve decision making.
304-13.0 PAVEMENT TESTING	604-1.0	Added language to better define the pavement testing and geotechnical data expectations required to complete a final pavement design.

Old Section Number	New Section Number	Revision Summary
304-14.0 MEPDG	604-2.0	Outlined the typical Pavement ME data inputs for various pavement types, design criteria inputs for differing roadway types, and selecting the proper analysis methods in Pavement ME based on the pavement treatment being analyzed. Updated the required inputs and analysis levels for rigid and flexible pavement. Added clarifying details throughout each section to better guide determining various inputs.
304-15.0 HMA PAVEMENT AND PAY ITEMS	607-1.0	Moved to new section
304-16.0 PCC PAVEMENT AND PAY ITEMS	607-2.0	Moved to new section
304-17.0 MISCELLANEOUS PAVEMENT PROJECT ELEMENTS	605-1.0	Added clarifying language to better define how each project or element is used. Added new sections to define foundation improvements and the process for small structure rehabilitation and replacement projects.
304-18.0 UNDERDRAINS	605-2.0	Moved to new section
304-19.0 PREVENTATIVE MAINTENANCE	602-1.0	Moved to new section
304-20.0 LIFE-CYCLE COST ANALYSIS (LCCA)	606	Moved to new chapter. Updated example on Pavement Engineering webpage.
304-21.0 TYPICAL PAVEMENT SECTIONS	602-3.0	Moved to new section
304-22.0 PAVEMENT DESIGN REQUEST AND INSTRUCTIONS	601-6.0	Moved to new section.