

State DOT: Michigan

State Report Questions on MEPDG Implementation

1. Summarize your state's status as far as MEPDG Implementation.

Michigan DOT has purchased a single copy of DARWin-ME for the statewide pavement design engineer to begin evaluation and become familiar with the software. This October 1, a research project will begin with Michigan State University involving local calibration and validation. The project is scheduled to be completed in 2014 at which time it is anticipated that the final transition to use of DARWin-ME will begin.

2. What efforts have been made toward local calibration?

Several projects have been completed that characterized materials used in Michigan to build pavements. These include the coefficient of thermal expansion for concrete mixes, resilient modulus for subgrade soils, resilient modulus for unbound base and subbase materials, and some preliminary work on dynamic modulus for HMA mixes. In addition a project with Michigan State University will be starting this October 1. This project has three components:

- Further testing of typical HMA mixes in Michigan
- Evaluation of M-E for rehabilitation designs in Michigan
- Calibration and validation of the models for Michigan conditions

3. What additional information/support would assist your state with implementation?

- Lessons learned from those who have already gone through the calibration or implementation process.
- Types of distress other states are using in their design protocol and what threshold criteria they employ.
- Criteria for considering a passing design as appropriate (not oversized).
- Suggestions for capturing construction data that will be used for future calibration efforts.
- If a design fails one or more of the threshold criteria, which inputs can be realistically changed in order to obtain a passing design?
- Is TrafLoad the best software for preparing the necessary traffic inputs?