

State DOT: South Dakota

State Report Questions on MEPDG Implementation

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

South Dakota DOT has developed an implementation plan to allow adoption of the MEPDG pavement design method. Twelve steps were identified to allow adoption of the MEPDG methodology for pavement design for South Dakota DOT.

- a. Conduct sensitivity analysis of MEPDG inputs. Completed during SDDOT research project SD2005-01. This work was done by Applied Pavement Technologies, Urbana, IL.
- b. Recommend MEPDG input levels and required resources to obtain those inputs. Completed during SDDOT research project SD2005-01. This work was done by Applied Pavement Technologies, Urbana, IL.
- c. Obtain necessary testing equipment to implement the MEPDG at the target MEPDG input levels. SDDOT currently contracts most testing required for MEPDG inputs and will evaluate the need to purchase testing equipment as we gain more experience with the methodology. SDDOT is currently working toward upgrading our CTE machine to T 336.
- d. Review version 1.0 of the MEPDG software. Currently in progress.
- e. Form a SDDOT MEPDG Implementation Team and develop and implement a communication plan. A team composed of SDDOT personnel and industry representatives was organized at the completion of research project SD2005-01 and is currently directing the implementation plan.
- f. Conduct staff training. Training has already been conducted for SDDOT employees. Additional training is envisioned as the MEPDG is adopted for common practice.
- g. Develop formal SDDOT-specific MEPDG-related documentation. In progress.
- h. Develop and populate a central database(s) with required MEPDG input values. In progress.
- i. Resolve differences between the MEPDG predicted distresses and those currently collected for the SDDOT pavement management system. A research project to evaluate and update the pavement management curves is currently being considered.
- j. Calibrate and validate MEPDG performance prediction models to local conditions. Once the design catalog is near completion this will be started.
- k. Define the long-term plan for adopting the MEPDG design procedure as the official SDDOT pavement design method. In progress.

I. Develop a design catalog. Currently testing construction materials (soils, bases, & asphalt) through a consultant. During the PCCP mix design process CTE samples are being made and 90 day cylinder strengths are being collected.

2. What efforts have been made toward local calibration?

At this time we are still in the process of researching materials inputs, that will be needed for local calibration.

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

None at this time – future research efforts will determine the extent of assistance required to calibrate the design guide.