



**Project Description:**

The Kansas Department of Transportation (KDOT) and the New York State Department of Transportation (NYSDOT) have been using Chapter 5 of the 1993 AASHTO Design Guide for rehabilitation design. AASHTO has recently adopted the pavement rehabilitation design procedures developed under the NCHRP 1-37A project for flexible and rigid pavement structures. These new procedures are based on mechanistic-empirical principles and they replace the earlier empirical procedures from the 1993 AASHTO Design Guide. The new procedures are incorporated in the AASHTOWare Pavement ME Design software. The main objective of this research project is to conduct the local calibration of the AASHTOWare Pavement ME design procedure for pavement rehabilitation in Kansas and New York state. The results of the research will enable KDOT and NYSDOT to expedite the use of this new tool for the design of rehabilitated pavements. The results will also provide KDOT and NYSDOT with the necessary input values to design rehabilitated pavements using the mechanistic-empirical methods.

**Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**

In this quarter, the perpetual pavement section on US-75 has been studied in details and a report has been prepared (paper for the TRB annual meeting). The subcontractor has been providing NYSDOT with pavement and overlay design support and has analyzed the traffic data collected by NYSDOT in 2014 and revised the traffic data collected in 2013. A list of data items needed for the local calibration was discussed with NYSDOT engineers, along with potential sources for assembling the data. Additional data sources have been identified. A literature review on the calibration activities conducted by other states is under way. A software for assembling FWD data is in preparation. A review of the simplified design method for new pavement structures was also conducted.

**Anticipated work next quarter:**

KSU has compiled the project list and will start collecting data for selected sections for rehabilitation calibration. The subcontractor will start collecting the data necessary for the calibration and will continue the analysis of the traffic data for the NYSDOT part of the contract and work on the development of the software for FWD data processing.

**Significant Results:**

This research work aims to contribute to the implementation of the AASHTOWare Pavement ME design software for rehabilitation design in Kansas and New York by performing the local calibration first.

**Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).**

None.