

RP 293 – Developing Enhanced Performance Curves of ITD Asphalt Pavements by Mining the Historical Data

○ Project Description:

The Idaho Transportation Department (ITD) is interested in refining the performance curves (i.e., pavement deterioration models) used to predict pavement performance because the current forecasting approach does not adequately account for complexities in the design, materials selection, construction features, maintenance and rehabilitation (M&R) history, etc. The department is interested in developing mechanistic and reliable models to predict the damage of ITD asphalt pavements at the project level and enable more accurate and robust optimization of pavement preservation and M&R decisions at the network level. The goal of this project is to develop reliable and realistic and enhanced performance curves for ITD asphalt pavements by mining the historical data.

○ Project Objective:

The objectives of this project include:

- Identifying the appropriate parameters and additional criteria to use in the enhanced asphalt performance curves
- Developing and calibrating distress-specific models for forecasting future pavement conditions, for both new and rehabilitated asphalt pavements
- Validating existing and enhanced curves using historical performance data.

○ Estimated Completion Date: September 30, 2022

○ Budget: \$126,119

○ Project Manager: James Poorbaugh, (208) 334-8841 james.poorbaugh@itd.idaho.gov

○ Principal Investigator: Xianming Shi, Ph.D. (509) 335-7088 xianming.shi@wsu.edu

○ TAC Members:

Mark Snyder, (208) 334-8253 mark.snyder@itd.idaho.gov

Shaun Scott, (208) 334-8974 shaun.scott@itd.idaho.gov

Mohammad Zubery, Local Highway Technical Assistance Council (LHTAC) (208) 344-0565 mzubery@ilhtac.org

○ FHWA Advisor: Kyle Holman, 208-334-9180 kyle.holman@dot.gov