UTC Project Information

Project Title	Simple Fatigue Test for Thin Overlays
University	The University of Texas at Austin
Principal Investigator	Jorge A. Prozzi. Ph.D. Ricardo Archilla, Ph.D.
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Funding Source(s) and Amounts Provided (by each agency or organization)	$123,081 USDOT
Total Project Cost	$123,081
Agency ID or Contract Number	DTRT13-G-UTC44
Start and End Dates	January 31, 2017 to August 31, 2018
Brief Description of Research Project	A test to effectively characterize the cracking and fatigue potential of asphalt mixes placed as thin overlays is lacking. The proposal outlines a research study to address this shortcoming. The objective of the study is to identify and recommend a practical and suitable test (or modifications to existing tests) that can be used by state DOTs better screen all asphalt mixtures during mixture design and for quality control and assurance (QCQA) purposes. As part of the research study it is proposed that the suitability of a variety of fatigue tests be investigated to determine their ability to efficiently discriminate and rank the fracture behavior of all asphalt mixtures used in Texas and Hawaii. Candidate tests that are best suited will be identified for further evaluation, specifically to develop test procedures and specifications for application. An experiment is proposed to assess the influence of variations in material properties on the fracture performance of asphalt mixtures to gauge the sensitivity of the candidate tests and to develop minimum criteria for specification of quality requirements for aggregates used in asphalt mixes.

Describe Implementation of Research Outcomes (or why not implemented)	N/A
Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	Parameters to assess the cracking performance of thin overlays will be recommended as well as provisional criteria for application. Field validation of these criteria for mix design limits and for QCQA specification purposes is required. The researchers will work with TxDOT to lay down trial sections. This will allow verification and calibration of both revisions to current mix design procedures as well as the recommended aggregate quality guidelines towards implementation by State DOTs.
Web Links • Reports • Project website	<www.chpp.egr.msu.edu>