UTC Project Information

Project Title
Optimizing Friction and Noise Properties of Preservation Treatments

University
The University of Texas at Austin

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Funding Source(s) and Amounts Provided (by each agency or organization)
$126,747 USDOT

Total Project Cost
$126,747

Agency ID or Contract Number
DTRT13-G-UTC44

Start and End Dates
January 31, 2017 to August 31, 2018

Brief Description of Research Project
Nowadays, federal, state and local highway agencies are increasing the demands on the performance and functionality of preservation treatments. It is no longer sufficient to extend the structural performance of a pavement structure but there are demands in terms of friction, noise, drainability. The technical objective of this joint study between UT Austin and UH Manoa will be to evaluate surface treatments used in Hawaii and Texas in terms of texture, friction and pavement-noise. Field sections in both states will be evaluated and monitored during the duration of the project to establish meaningful relationships between texture, friction and noise. These relationships will then be analyzed as a function of the properties of the surface treatment. From these analyzes, guidelines will be established that will enable the highway agencies to select the best treatment based on joint requirements of noise level and skid requirements. These guidelines could be used by the state DOTs for establishing technical specifications.

Describe Implementation of Research Outcomes (or why not implemented)
N/A

Place Any Photos Here

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Impacts/Benefits of Implementation (actual, not anticipated)

The implementation of the findings of this research will provide state Departments of Transportation (DOTs) with a methodology for a more efficient determination of the type of surface treatments to be used when requirements of low noise and high friction are important. In particular, the states of Hawaii and Texas will be benefited as their initial set of recommendation will be developed based on data from these two states. However, the findings in terms of relationships between noise and texture/friction will be general and could be applied elsewhere. It is expected that state DOTs would use these guidelines to develop technical specifications.

Web Links

- Reports
- Project website

<www.chpp.egr.msu.edu>