

## TECHNICAL REPORT DOCUMENTATION PAGE

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<b>16. ABSTRACT</b>  <p>The objective of the study is to build on the research done overseas and conduct a comparative field evaluation of various methods used to restore pavement skid resistance by retexturing the existing surface with either a surface treatment, chemical treatment or a mechanical process. In Phase 1, 16 field test sections were constructed on State Highway 77 between Oklahoma City and Norman. Monthly microtexture and macrotexture measurements were taken over a period of 22 months. The field data was reduced to create deterioration models based on loss of both micro and macrotexture over time. The models were then used to calculate effective service lives for each treatment which was then used as input for a life cycle cost analysis.</p> <p>A new lifecycle cost analysis model for pavement preservation treatments based on equivalent uniform annual cost rather than net present value was developed and is used to process the pavement texture change data. This will allow pavement managers to have the required information to be able to make rational engineering design decisions based on both physical and financial data for a suite of potential pavement preservation tools. Each treatment alternative has been evaluated under the same conditions over the same period of time by an impartial research team. The project will continue for a third year under the Phase 2 OTCREOS9.1-21 contract. Upon its completion, a pavement preservation treatment toolbox for a total of 23 different treatments will be developed and furnished to ODOT for use by its division maintenance engineers in the state-wide pavement preservation program.</p>			
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