

LIME SLURRY IN COLD INPLACE RECYCLE

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Introduction

Cold inplace recycling (CIR) of asphalt concrete pavements has been used in Kansas since 1977 to rehabilitate roads and provide an extended surface life. Asphalt emulsion and, later, fly ash were added to the recycled material as binders and stabilizers. Industry proposed substituting lime slurry for fly ash in an attempt to address performance problems associated with fly ash stabilized pavements.

Project Objective and Description

This project compared the performance of lime slurry and fly ash additives in CIR pavements through the construction and field monitoring of test sections. Laboratory studies of cores and laboratory-constructed samples were also performed, and a cost analysis compared the costs of the two additives.

Project Results

The field performance of the lime-slurry section was about 25% better than that of the fly ash section. However, the lime-slurry cold inplace recycling is approximately 25% more expensive than using fly ash. Therefore, on the basis of a life-cycle cost analysis, it appears that fly ash and lime slurry CIR projects are roughly equivalent.

Report Information

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