

## **AN EXPERIMENTAL INVESTIGATION ON THE INFLUENCE OF HYDRATED LIME ON ASPHALT MIXTURES (A CASE STUDY IN IRAN)**

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### *ABSTRACT*

Hydrated lime (HL) has been known as an additive for asphalt mixture durability. It is observed to be the most effective additive when moisture damage becomes one of the most pressing pavement failure modes. Also the use of HL is a recognized way to decrease stripping phenomena on asphalt mixtures. In this research, we aimed to investigate the HL effect by performing laboratory tests on various aggregates and one percent of HL additive to figure out the changes in some principal HMA design factors. Test results have been used in one of the major high way construction projects in Iran (Zanjan-Tabriz highway (section 9)), with aggregates susceptible to premature stripping. Texas boiling water test (ASTM D3625) was used as a primary investigation of aggregate tendency to stripping and Lottman test (AASHTO T283) for examining the indirect tensile strength of asphalt mixtures. Evaluation of asphalt Mixture durability against moisture is done by TSR ratio, MRR and fatigue index. Results in our tests in a real project show the beneficial effects of HL on asphalt mixture durability and stripping Phenomena.