Phenomenon of Raveling Distress on the Flexible Pavements: An Overview

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Abstract : In the last few years, Bituminous Asphaltic roads are becoming popular day by day in the world. Plenty of research has been carried out to identify many advantages like safety, environmental effects, and comfort. Some other benefits are minimal noise and skid resistance enhancement. Besides the benefits of asphaltic roads, the permeable structure of the road also causes some distress, and raveling is one of the crucial defects. The main reason behind this distress is the failure of adhesion between bitumen mortar, specifically due to excessive load from heavy traffic. The main focus of this study is to identify the root cause and propose both the long-term and the short-term solutions of raveling on a specific road section depicting the overall road situation from the bridge of Kahuta road towards the intersection of the Islamabad express highway. The methodology adopted for this purpose is visual inspections in-situ. It was noted that there were chunks of debris on the road surface, which indicates that the asphalt binder is aged the most probably. Further laboratory testing would confirm that either asphalt binder is aged or inadequate compaction was adept during cold weather paving.

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Keywords : asphaltic roads, asphalt binder, distress, raveling

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