

Assessing Surface Defects of Flexible Pavement at Parking Lot due to Undesirable Commercial Activities

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ABSTRACT

Flexible pavement can be considered as the main mode of transportation nowadays as it is most reliable and have more users per day. As the pavement technologies developed over time, they manage to build pavement which is durable and economic. Even so, surface distresses can occur if the pavement was constructed poorly and also does not have regular maintenance. The purpose of this study is to investigate the relationship between the surface deformation at the parking lot with the undesired utilities of commercial vehicles by using visual observation and also image analysis software. From this study, four different locations which are two from inside institutional parking lot area and other two locations from outside institutional area. The two location that we choose must be a location with business activities and location without business activities as a comparison of the severity of the pavement. Pavement severity distresses analysis usually done on a highway as it has more traffic load and also the vehicles have higher speed. From the results, it clearly shown the existence of all four types of surface defects. It is also usually done using manual method which are using special ruler and visual observation. Thus, it is dangerous as the data must be read on site and also it needed more workers for the observation. For our approach, we take the data on site and use visual analysis software to get the data which is much safer.

KEYWORDS

Surface Defects; Flexible pavement; Pavement severity; Bleeding; Ravelling; Polishing; Delamination; Visual observation

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