

Concrete pavement design**Dagher Imad**

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This study takes a numerical analytical model, which is based on finite element code to investigate the effect of high temperature and axle load on concrete pavements. The main aim of this study is to investigate how city streets can accommodate the huge pressures exerted on it by the phenomenon growth in urbanization, and there are no aspects of street development that brings life to city streets other than pavements or pedestrianised walkways, and the extent to which the impacts on cities are felt crucially depends on the longevity and costs of maintenance. This study therefore looks at the direct effect of high temperatures and axle loads on rigid pavements. In order to achieve this the ABAQUS software was used develop a conceptual framework to analyze and respond to factors that affect the longevity of street pavements in Lebanon. It specifically focuses on relevant aspects of safety, sustainability, and cost benefit analysis. Effective and functioning streets are a necessary prerequisite to sustainable growth and development, and Lebanon needs to generate sustainable growth to offer employment and income generating opportunities for its teeming population. It is expected that knowledge gained from this study is equally applicable in other areas of infrastructure development and provisions. Finally, this study will be of interests to urban policy makers, infrastructure providers, and academics contending with issues of infrastructure development and supply generally, particularly developing countries.

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