

Roadway Rehabilitation

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ABSTRACT

The research project is based on how the city of Tyler can improve a section of roadway. The goal of the project will be identifying the severity and extent of all kinds of distresses in the roadway, calculating the pavement cracking idea (PCI) and eventually producing two to three recommended rehabilitation strategies. The data collection is done by surveying the roadway for what damage the roadway has sustained. The results show that most of the road is in good health and just needs routine maintenance but there is a single pothole that needs to be fixed. After the survey was completed the recommended plan for the roadway would be to either temporarily fix the problem by filling the pothole with hot mix asphalt (HMA), or permanently fixing the pothole by doing a full depth removal and replacement patch of the asphalt around the pothole.

METHODOLOGY

The data gathering process started by gathering the data by surveying the area. This can be done by several different devices like the face dipstick, high speed profiler, and an inertial profilometer. Another way to survey the area is take photographs of the distress in the section of the roadway that's being observed.

RESULTS

Once all of the data was calculated the pavement condition index can then be calculated to find the severity of the distresses. The total PCI for the roadway is 96. What this means is that the section of road is not severely damaged.

RECOMMENDATIONS

My recommendations for the roadway would be done in two parts. The small amount of surface defects on the roadway can be repaired by routine maintenance. The best way to repair the deteriorated patch or potholes would be overlaying the section with hot mix asphalt that can be compacted.

Distress	Severity	Quantity	Total	density	Deduct value	M	CDV	PCI
50 M		1	1	0.02	10	9.26	8	96
52 L		3	3	0.06	7	9.54	4	

INTRODUCTION

A pavement management engineers main job is surveying roadways and recommending ways to rehabilitate and reconstruct them.



CONCLUSION

Although this section of the roadway has some moderate damage the rest of the pavement is mostly smooth. This mean that the road section is in good overall health but it also needs more routine maintenance and a overlay treatment.