

# Design of a New Road Project at Nilai

Prepared by: Tan Jun En

## ABSTRACT

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This project is based on the research and design made throughout the semester. The title of this project is “Design of a New Road Project in Nilai.” This report is structured into six sections with each into its divided subsections.

The first section, **1.0 INTRODUCTION** introduces briefly about roads as well as the purpose and objective of this project done.

The second section, **2.0 INTRODUCTION OF NEW ROAD PAVEMENTS** consists of studies about road and highway pavements. It shows the requirements of an ideal pavement. It introduces the two main types and qualities of road pavements which is the flexible and rigid pavement.

The next section, **3.0 RESEARCH ON FLEXIBLE PAVEMENT** shows the studies and researches done before the main objective of this project, which is to design a road in Nilai. The research is based on the flexible pavement since it is chosen as the type of pavement used in this design. The researches include on the types of flexible pavement, coating layers on a flexible pavement, components of flexible pavements as well as the possible failures for flexible pavement.

The fourth, which is the most important section of this project is **4.0 ROAD DESIGN PROJECT IN NILAI**. After all the researches and studies, this section shows the methods and techniques used to design the new road. The road is designed using the flexible pavement as the selected pavement type. An experiment of the average daily traffic was made. With collected and selected data, the thickness of the each layer of pavement was calculated using the JKR method which follows the specific standard measurements of Malaysia. As the road is designed with horizontal and vertical curves in it, the calculation of the length as well as the speed limit of each curve were made.

The fifth section, **5.0 CONCLUSION**, concludes the report with the final information and results obtained and techniques used.

The last section, **6.0 REFERENCES**, shows all the books and website links used as references to the studies and researches made for this entire project.