FEASIBILITY STUDY OF ROAD UPGRADING FROM FLEXIBLE PAVEMENT CONSTRUCTION TO RIGID PAVEMENT CONSTRUCTION ON JALAN MANGKURAJA TENGGARONG KUTAI KARTANEGARA

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ABSTRAK

Kutai Kartanegara is one of the richest districts in Indonesia with a large budget of revenues and expenditures (APBD). As a developing regions, this district are being intensively development programs that affect the structure of the environment throughout the district. One program that is realized is the improvement quality of roads in Tenggarong. Improvement of roads made is to replace all the urban roads with the Flexible Pavement Construction becomes Rigid Pavement Construction.

In this Final Project will be discussed a feasibility study on the urban road improvement in Tenggarong from Flexible Pavement becomes Rigid Pavement, by taking the example of Mangkuraja’s Road Improvement Project. Studies discussed include: calculating the thickness of Flexible Pavement Construction and Rigid Pavement Construction; calculating the cost of Rigid Pavement Construction; calculating the cost of periodic and routine maintenance (for Flexible Pavement) and the cost of routine maintenance (for Rigid Pavement); calculating Vehicle Operating Costs for Flexible Pavement and Rigid Pavement by using the N.D. Lea method; to analyze the feasibility of road upgrading project economically using the calculation of Benefit Cost Ratio.

From the calculation results, obtained Rigid Pavement Construction Cost of Rp. 10.379.163.010,89 and Rigid Pavement Construction Cost of Rp. 10.379.163.010,89 and Rigid Pavement Construction Cost of Rp. 10.379.163.010,89 and Rigid Pavement Construction Cost of Rp. 10.379.163.010,89.

Keywords: Flexible Pavement, Rigid Pavement, Feasibility Study, Road Upgrading