

**PERANCANGAN GEOMETRIK JALAN DAN TEBAL PERKERASAN
KAKU JALAN LAHAT – MUARA ENIM STA 00+000 – STA 09+597
PROVINSI SUMATERA SELATAN**

Muhammad Adhitya, Naufal Fahri Wijaya
Program Studi D-IV Teknik Sipil, Politeknik Negeri Sriwijaya

ABSTRAK

Ruas Jalan Lahat–Muara Enim memiliki peranan penting dalam mendukung mobilitas masyarakat dan distribusi hasil pertanian, perkebunan, serta pertambangan di Provinsi Sumatera Selatan. Untuk meningkatkan konektivitas dan mengurangi kepadatan lalu lintas pada jalur eksisting, dilakukan perancangan jalan alternatif sepanjang $\pm 9,6$ km pada STA 00+000 – STA 09+597. Perancangan ini meliputi geometrik jalan, tebal perkerasan kaku, sistem drainase, serta manajemen proyek dan Rencana Anggaran Biaya (RAB). Perancangan dilakukan berdasarkan standar dan pedoman Bina Marga yang berlaku. Analisis meliputi alinyemen horizontal dan vertikal, perancangan perkerasan kaku, desain drainase dan box culvert, serta penyusunan jadwal pelaksanaan dan biaya proyek. Hasil perancangan menunjukkan bahwa ruas jalan alternatif yang dirancang memenuhi persyaratan teknis perancangan jalan, mampu memberikan jalur yang lebih efisien, serta mendukung kelancaran dan keselamatan lalu lintas. Selain itu, diperoleh desain perkerasan, drainase, dan estimasi biaya yang dapat digunakan sebagai acuan dalam pelaksanaan pembangunan jalan.

Kata kunci: geometrik jalan, perkerasan kaku, drainase, manajemen proyek, RAB.

**GEOMETRIC DESIGN AND RIGID PAVEMENT THICKNESS DESIGN OF
THE LAHAT–MUARA ENIM ROAD STA 00+000 – STA 09+597, SOUTH
SUMATRA PROVINCE**

Muhammad Adhitya, Naufal Fahri Wijaya

Civil Engineering Undergraduate Program, Sriwijaya State Polytechnic

ABSTRACT

The Lahat–Muara Enim Road was an important role in supporting community mobility and the distribution of agricultural, plantation, and mining products in South Sumatra Province. To improve connectivity and reduce traffic congestion on the existing route, an alternative road with a length of approximately ±9.6 km was designed from STA 00+000 to STA 09+597. This design includes road geometry, rigid pavement thickness, drainage systems, project management, and cost estimation (RAB). The planning process was carried out based on applicable Bina Marga standards and guidelines. The analysis covered horizontal and vertical alignment design, rigid pavement design, drainage and box culvert design, as well as project scheduling and cost estimation. The results indicate that the proposed alternative road meets the applicable technical design requirements, provides a more efficient route, and supports traffic safety and smooth traffic flow. In addition, the pavement, drainage, and cost estimation designs obtained can be used as references for the implementation of road construction.

Keywords: *geometric design, rigid pavement, drainage, project management, cost estimation.*