

ABSTRAK

Jalan merupakan prasarana transportasi yang memiliki peran penting dalam mendukung kegiatan masyarakat, perekonomian, dan pembangunan wilayah. Seiring meningkatnya volume lalu lintas serta kerusakan jalan akibat faktor alam dan aktivitas manusia, diperlukan pembangunan dan peningkatan kualitas jalan agar pelayanan transportasi menjadi lebih aman, nyaman, dan efisien.

Laporan Akhir ini membahas perencanaan geometrik dan tebal perkerasan lentur jalan penghubung Desa Muara Batang Empu – Sukaraja – Sukamenang menuju Jalan Lintas Maur–Terawas Sta 0+000 – Sta 8+972 Kabupaten Musi Rawas Utara menggunakan data dari Dinas Pekerjaan Umum Bina Marga dan Tata Ruang Provinsi Sumatera Selatan, meliputi data LHR, CBR, serta harga satuan pekerjaan. Hasil perencanaan menunjukkan terdapat delapan tikungan, yaitu empat tikungan Spiral-Circle-Spiral (SCS) dan empat tikungan Full Circle (FC). Volume galian sebesar 18.162,00 m³ dan volume timbunan sebesar 1.571,00 m³. Tebal perkerasan yang diperoleh terdiri atas lapis fondasi atas kelas A 200 mm, lapis fondasi atas kelas B 150 mm AC-WC 40 mm, AC-BC 150 mm, bahu jalan dengan agregat kelas A 155 mm, agregat kelas B 150 mm dan agregat kelas S 160 mm, dengan nilai CBR tanah dasar sebesar 9,6%.

Berdasarkan hasil perencanaan, kebutuhan biaya pembangunan diperkirakan sebesar Rp. 65.674.170.004,00 dengan waktu pelaksanaan selama 88 hari. Perencanaan jalan harus mengacu pada standar yang berlaku, mempertimbangkan kondisi medan, serta menggunakan harga satuan terbaru agar menghasilkan desain yang aman, ekonomis, dan sesuai kebutuhan.

Kata Kunci: Perencanaan geometrik jalan, perkerasan lentur, alinemen horizontal, alinemen vertikal, jalan kolektor pedesaan, Direktorat Jenderal Bina Marga.

ABSTRACT

Roads are transportation infrastructure that play an important role in supporting community activities, the economy, and regional development. Along with the increasing volume of traffic and road damage caused by natural factors and human activities, road construction and quality improvement are needed to make transportation services safer, more comfortable, and more efficient.

This Final Report discusses the geometric design and flexible pavement thickness planning for the connecting road from Muara Batang Empu – Sukaraja – Sukamenang Villages to the Maur–Terawas Cross Road, Sta 0+000 – Sta 8+972, in North Musi Rawas Regency, using data from the Provincial Public Works Agency for Highways and Spatial Planning of South Sumatra, including Average Daily Traffic (LHR), CBR, and unit price data. The planning results show eight curves, consisting of four Spiral-Circle-Spiral (SCS) curves and four Full Circle (FC) curves. The excavation volume is 18,162.00 m³ and the embankment (fill) volume is 1,571.00 m³. The resulting pavement thickness consists of a Class A upper base course of 200 mm, a Class B upper base course of 150 mm, AC-WC of 40 mm, AC-BC of 150 mm, and shoulders with Class A aggregate of 155 mm, Class B aggregate of 150 mm, and Class S aggregate of 160 mm, with a subgrade CBR value of 9.6%.

Based on the planning results, the estimated construction cost is Rp 65,674,170,004.00, with an implementation period of 88 days. Road planning must refer to applicable standards, take terrain conditions into account, and use up-to-date unit prices in order to produce a design that is safe, economical, and suited to actual needs.

Keywords: *Road geometric design, flexible pavement, horizontal alignment, vertical alignment, rural collector road, Directorate General of Highways (Bina Marga).*