

ABSTRAK

PERANCANGAN GEOMETRIK DAN PERKERASAN KAKU PADA RUAS JALAN SP. SEMAMBANG – SP. KULIM STA 00+000 – STA 5+230 PALI SUMATERA SELATAN

Pembangunan infrastruktur jalan memiliki peran penting dalam menunjang pertumbuhan ekonomi dan mobilitas masyarakat. Penelitian ini bertujuan untuk merancang geometrik jalan dan menentukan tebal perkerasan kaku pada ruas jalan SP. Semambang – SP. Kulim sepanjang 5,23 km di Kabupaten PALI, Sumatera Selatan. Perancangan dilakukan dengan memperhatikan kondisi eksisting, klasifikasi medan jalan, volume lalu lintas harian rencana, serta standar geometrik sesuai Pedoman Desain Geometrik Jalan 2021. Analisis mencakup alinyemen horizontal dan vertikal, penentuan ketebalan perkerasan berdasarkan jenis dan jumlah beban kendaraan, serta perhitungan drainase dan gorong-gorong. Hasil perencanaan ini diharapkan dapat meningkatkan efisiensi perjalanan, memperlancar distribusi logistik, serta memberikan kenyamanan dan keselamatan bagi pengguna jalan.

Kata kunci: perkerasan kaku, geometrik jalan, alinyemen, perencanaan jalan.

ABSTRACT

DESIGN OF GEOMETRIC AND RIGID PAVEMENT THICKNESS ON SP. SEMAMBANG – SP. KULIM STA 00+000 – STA 5+230 PALI SUMATERA SELATAN

Road infrastructure development plays a vital role in supporting economic growth and public mobility. This study aims to design the road geometry and determine the rigid pavement thickness on the SP. Semambang – SP. Kulim road section, spanning 5.23 km in PALI Regency, South Sumatra. The design considers existing conditions, terrain classification, projected daily traffic volume, and geometric standards based on the 2021 Road Geometric Design Guidelines. The analysis includes horizontal and vertical alignment, pavement thickness based on vehicle load types and frequencies, as well as drainage and culvert calculations. The results of this planning are expected to improve travel efficiency, facilitate logistics distribution, and provide comfort and safety for road users.

Keywords: *rigid pavement, road geometry, alignment, road planning.*