

**REDESIGN GEOMETRIK DAN PERKERASAN JALAN PUSPAHIANG
PADA STA 0+000 SAMPAI STA 5+000 (DESA MANDALASARI SAMPAI
PERBATASAN DESA PUSPASARI) KABUPATEN TASIKMALAYA**

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ABSTRAK

Jalan Puspahiang dari Desa Mandalasari sampai perbatasan Desa Puspasari merupakan jalan penghubung antar desa menuju kota. Jalan Puspahiang memiliki lebar 3,5 m dengan kondisi permukaan jalan rusak dan saluran drainase berbentuk segi empat dari tanah. Menurut Tata Cara Perencanaan Geometrik Jalan Antar Kota (TPGJAK) tahun 1997 lebar jalan kolektor minimal 4,5 m. Perencanaan ulang jalan diperlukan untuk memenuhi peraturan.

Perencanaan ulang jalan dengan desain alinyemen horizontal dan alinyemen vertikal. Perencanaan tebal perkerasan terdiri dari penentuan nilai CBR tanah dasar, penentuan nilai daya dukung tanah dasar, menghitung lalu lintas harian rata-rata, penentuan bahan dan tebal lapis perkerasan. Perencanaan drainase terdiri dari analisis hidrologi, analisis intensitas hujan, menghitung waktu konsentrasi, menghitung koefisien pengaliran, menghitung debit banjir rencana dan penentuan dimensi saluran drainase. Setelah mendapatkan hasil perhitungan dibuat rencana anggaran biaya.

Hasil perencanaan ulang didapatkan panjang trase jalan 4552,865 m, 7 tikungan *Spiral-Circle-Spiral*, 2 tikungan *Spiral-Spiral*, 21 lengkung vertikal cembung, 19 lengkung vertikal cekung, galian sebesar 44719,651 m³ dan timbunan sebesar 22149,528 m³. Perkerasan jalan menggunakan perkerasan lentur dengan umur rencana 20 tahun, tebal lapis permukaan (laston MS 744) 8 cm, lapis pondasi (batu pecah kelas A) 20 cm dan lapis pondasi bawah (sirtu kelas A) 10 cm. Perencanaan dimensi saluran drainase menggunakan bentuk persegi dengan lebar 0,60 m, tinggi muka air 0,35 m dan tinggi jagaan 0,42 m. Rencana Anggaran Biaya (RAB) sebesar Rp. 16.674.778.000,00.

Kata kunci: Geometrik, Drainase, Perkerasan

**REDESIGN GEOMETRIC AND PAVEMENT PUSPAHIANG ROAD AT STA
0+000 TO STA 5+000 (MANDALASARI VILLAGE TO PUSPASARI
VILLAGE BORDER) TASIKMALAYA DISTRICT**

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ABSTRAK

Puspahiang road from Mandalasari Village to Puspasari Village border is a connecting road between villages to the city. Puspahiang road has a width of 3,5 m with a damaged road surface and a rectangular drainage channel from the ground. According to the Geometric Planning Procedure for Inter-City Roads in 1997, the width of the collector road is at least 4,5 m. Road re-planning is required to comply with regulations.

Road re-planning with horizontal and vertical alignment designs. Pavement thickness planning consists of determining the CBR value of the subgrade, determining the value of the bearing capacity of the subgrade, calculating the average daily traffic, determining the material and thickness of the pavement layer. Drainage planning consists of hydrological analysis, rainfall intensity analysis, calculating concentration time, calculating flow coefficient, calculating planned flood discharge and determining drainage channel dimensions. After getting the calculation results, a budget plan is made.

The results of the re-planning that the length of the road trace is 4552,865 m, 7 Spiral-Circle-Spiral bends, 2 Spiral-Spiral bends, 21 convex vertical curves, 19 concave vertical curves, excavation of 44719,651 m³ and heaps of 22149,528 m³. The road pavement using flexible pavement with a design life of 20 years, the thickness of the surface course (laston MS 744) is 8 cm, the base course (class A crushed stone) is 20 cm and the sub-base course (class A sandstone) is 10 cm. Planning the dimensions of the drainage channel using a square shape with a width of 0,60 m, a water level of 0,35 m and a guard height of 0,42 m. The budget plan is IDR 16,674,778,000.00.

Keywords: Geometric, Drainage, Pavement