PERENCANAAN GEOMETRIK JALAN LINGKAR UTARA RUAS JL. MOH. HATTA – JL. LETNAN HARUN

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ABSTRACT

The city of Tasikmalaya which is located in the eastern region of West Java Province has various types of businesses that can be utilized optimally by the surrounding community. The existence of expansion or development in various sectors, the increasing rate of vehicle growth, and the pattern of the road network that tends to be concentric (concentrated in the middle of the city), are the main problems, so it is necessary to build new roads to improve the regional economy so that the distribution of goods and services is not hampered.

The construction of the northern ring road of Tasikmalaya City is in the Cipedes and Indihiang sub-districts. This plan discusses the geometric planning of roads including horizontal alignment and vertical alignment, then drainage planning calculates rainfall, analyzes frequency distribution, calculates rain intensity, while pavement planning discusses traffic density analysis determines CBR value, determines standard load, calculates road capacity and determines type of road. and thickness of the pavement layer. The next step is to calculate the cost budget plan.

The results of the planning obtained that the length of the road trace is 5717 meters with 4 transition curves, 1 type of S-S bend. and 3 types of S-C-S bends. Then vertical alignment with 13 vertical curves, 2 concave vertical arches and 11 convex vertical arches. The volume of excavation is 93,307.96 m3 and the embankment is 36,159.57 m3. For channel dimensions with a width of 80 cm, a water level of 50 cm and a water guard height of 50 cm, the channel discharge Q = 0.591 m3/sec. The pavement uses a flexible type of pavement with a surface layer thickness of 7 cm, a top foundation layer of 20 cm and a bottom layer of 10 cm with a total height of 37 cm. The budget plan is Rp. 94,436,946,000.00 with execution time of 300 days.

***Keywords**: Alignment, Drainage, Pavement*

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