PERENCANAAN GEOMETRIK JALAN LINGKAR UTARA
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ABSTRACT

Roads play a very important role in the land transportation sector, especially to maintain the continuity of the distribution of goods and services. The development of the type and quantity of vehicles as a means of land transportation that connects cities both within and between provinces is the main problem that exists in the context of developing the road network. Along with the increasing need for transportation facilities that can reach production center areas, it is very necessary to have road infrastructure that can serve the movement of goods and services traffic to support the rate of economic growth.

The rapid development of traffic, and the existence of environmental factors, as well as natural factors that can affect the decline in the condition of road sections in order to improve road services, both in terms of structure, capacity, and alignment, it is necessary to have the best and economical technical planning with pay attention to the safety and comfort of road users, as well as environmental factors. The construction of the North Road of Tasikmalaya City which is included in the arterial road class connects the Cipedes District and the Cibeureum District. 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 results of the planning obtained the length of the route along the 3750 meters with 4 transition curves S-C-S. Then the vertical alignment has 2 concave vertical arches and 4 convex vertical arches with excavation of 57,403.26 m3 and embankment of 27,519.19 m3. For channel dimensions with a width of 100 cm, a water level of 50 cm and a water guard height of 50 cm, the channel discharge Q = 0.761 m3/s. The pavement uses flexible pavement with a design life of 20 years, while for the surface layer thickness, Surface Course: Wearing Course Laston / AC-WC (40 mm), Binder Course / Lataston AC-BC (60 mm), Base Course Upper Foundation Layer Class A (75 mm), Sub Base Upper Foundation Layer Class B (150 mm), Sub Grade Improvement of subgrade (1200 mm).

Keywords*: Alignment, Drainage, Pavement*