

## **ABSTRACT**

Rengasdengklok Market is one of the main markets with the status of a traditional market in Karawang Regency which is a trading center for buying and selling activities of the people in the Northern Region of Karawang Regency. Along with the increasing volume of vehicles crossing this road without an increase in road capacity, it causes a poor level of service (Level of Service) on the Rengasdengklok road section.

The method used in this study is to analyze the traffic performance of the Rengasdengklok Market Area based on the generalization cost with PTV VISSIM 9 software. Recommendation for this study are 1) Procurement of pedestrian facilities, prohibition of traders from selling on the shoulder of the road, relocating on-street parking to off-street parking in several roads, and adjusting rural transport on Jalan Rengasdengklok I; 2) Application of the One Way System (SSA) in the Rengasdengklok Market Area; 3) procurement of pedestrian facilities, prohibition of traders from selling on roads, relocation of on-street parking to off-street parking in several roads, setting of parking angles on the Rengasdengklok I Road Section and implementing the One Way System (SSA) in the Rengasdengklok Market Area.

Traffic performance changes in every condition, both in do-nothing and do-something conditions. The highest profit value is in recommendation 3 with a congestion value (generalized cost) of Rp.22,144,710,326/hour and a value of profit (saving cost) of Rp. 9,306,269,598/hour.

**Keywords:** Traffic Engineering Management, Road Network Performance, congestion value