THE ANALYSIS OF THE UNSIGNALIZED INTERSECTION PERFORMANCE (THE CASE STUDY OF THE CICARIANG UNSIGNALIZED INTERSECTION)

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ABSTRACT

The Cicariang unsignalized intersection is an intersection that connects Perintis Kemerdekaan Street and Cibeuti Street with Pagaden Street is located in Kawalu district, Tasikmalaya City. As the population grows and economic needs increase, this has made the volume of traffic flow also increase. The purpose of the research is to determine the performance of the Cicariang unsignalized intersection in the existing conditions and to find out alternative solutions to the problem at the intersection. This research was conducted for 16 days in the field taken at peak hours, then analyzed using the Indonesian Highway Capacity Manual (IHCM, 1997). Based on the results of the traffic flow analysis, the intersection performance is (Q) 4024 pcu/hour with the capacity (C) is 3474.62, while the saturation degree (DS) is 1.16. The intersection delay (D) is 32.17 sec/hour and the queue probability is 54.45-109.87% with service level D (not good). The results of the analysis can be seen that the condition of the intersection is not good, where there has been vehicle delay and congestion. Therefore, it is necessary to improve infrastructure such as installing traffic lights, widening roads, and constructing level roads or new breakthrough roads. However, this is not possible because of the small geometry conditions and requires a lot of time and money. In order for road users to know road facilities, they should install traffic signs and road surface markings to build a road system.

Keywords : Intersection, IHCM 1997, Degree of saturation, Delay

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