

ABSTRACT

Intersections are an important part of the transportation system, serving as a meeting point for traffic flows from various directions. The Kawalu Intersection, which connects Jalan Perintis Kemerdekaan, Jalan Raya Cibeuti, and Jalan Pagedan, is an unsignalized intersection located around the Kawalu Market area and has quite high traffic activity. This condition can cause delays and queues of vehicles, so an analysis is needed to determine the intersection's performance.

This study aims to determine the performance of the unsignalized intersection in Kawalu based on traffic volume, capacity, degree of saturation, and level of intersection service. The analysis was conducted using the 1997 Indonesian Road Capacity Manual (MKJI) method. The data used includes data from Intersection metric data, traffic flow data, environmental conditions, and population data.

Based on the analysis results on Sunday, October 8, 2023, at 3:00 PM–4:00 PM, the traffic volume was 2,044 smp/hour with an intersection capacity of 3,013 smp/hour. The degree of saturation (DS) value was 0.68 and the level of service was 0.68. (Level of Service/LOS) is at level C. Alternative improvements are made by reducing side obstacles by installing no parking and stopping signs and installing warning lights (warning light). The results of the alternative improvements show that the intersection capacity increased to 3,544 smp/hour, while the degree of saturation decreased to 0.58 with the service level remaining at level C. Thus, reducing side obstacles can increase the intersection capacity and improve traffic performance compared to current conditions. existing.

Keywords: *performance, intersection, no signal*