

ABSTRACT

Gunung Kidul district area is one of the tourism centers in the province of Yogyakarta Special Region. It effects to the number of vehicles passing through Gunung Kidul Regency increase rapidly and causes the heavy traffic. The road in Gunung Kidul Regency which was used as the location for evaluation was the Yogyakarta - Wonosari Highway Km 23-23.2; Km 24,3 - Km 24,6 and Km 26,4 - Km 26,6. Yogyakarta - Wonosari roads Km 23 - Km 26.6 is classified as the collector roads and hilly terrain roads. Evaluation needs to be done in order to the road alignment on Jalan Yogyakarta - Wonosari Km 23 - 23.2; Km 24.3 - Km 24.6 and Km 26.4 - Km 26.6 corresponding to the requirements of the Directorate General of Highways.

Data retrieval is done on the existing alignment part. Research data consist of road width, road shoulder width, visibility, coordinates of road stations, vehicle speed and vehicle traffic volume. Afterwards, the data was analyzed by 1997 Bina Marga method and compared to the available requirements. From the analysis there were several aspects that have not met the requirements of DGH so that the alternative planning is needed.

The results of the existing alignment analysis are mean daily traffic volume of 24571 SMP / day which shows the type of class III collector road. The radius of the bend does not eligible the minimum radius on bend 1, bend 2, bend 3, bend 4, and bend 5. The distance of visibility does not adequate on bends 1 and 3, and there are many road lanes and shoulders that do not meet the requirements. So that an alternative alignment needs to be applied which consist of 3 bends, they are s-c-s type with radius of 68 meters, 60 meters and 56 meters respectively.

Keywords: Geometry, horizontal alignment, vertical alignment, highways 1997