INTISARI

IRFAN NUR AZAM, 2018, *Evaluasi dan Strategi Penanganan Kinerja Simpang Bersinyal Kentungan Kab. Sleman, D.I.Yogyakarta.* (dibimbing oleh Nursyamsu Hidayat ST, MT, Ph.D)

Simpang Kentungan merupakan salah satu simpang bersinyal yang ada di Kab. Sleman, D.I.Yogyakarta yang memiliki lalu lintas yang padat dan sering terjadi kemacetan. Nilai tingkat pelayanan yang buruk pada Simpang Kentungan sangat mengganggu aksesibilitas transportasi. Nilai tingkat pelayanan yang buruk tersebut diperlukan evaluasi dan analisis Simpang Kentungan untuk melakukan strategi penanganan kinerja Simpang Kentungan sehingga nilai tingkat pelayanan dapat ditingkatkan.

Proses analisis kinerja simpang dilakukan dengan tahapan analisis data lalu lintas dan data kondisi lingkungan simpang untuk mendapatkan volume lalu lintas dan kapasitas serta digunakan untuk menentukan nilai tingkat kinerja Simpang Kentungan yakni derajat kejenuhan dan tundaan simpang. Nilai kinerja Simpang Kentungan selanjutnya digunakan untuk menentukan strategi penanganan untuk meningkatkan nilai tingkat pelayanan Simpang Kentungan.

Hasil analisis Simpang Kentungan disimpulkan bahwa kondisi kinerja eksisting Simpang Kentungan sangat buruk dan tidak memenuhi persyaratan sehingga diperlukan strategi penanganan. Strategi penanganan akhir didapatkan nilai kapasitas simpang jam puncak pagi, siang, dan sore sebesar 915,25 smp/jam; 903,5 smp/jam; dan 903,25 smp/jam, nilai derajat kejenuhan jam puncak pagi, siang, dan sore sebesar 0,64; 0,51; dan 0,58, dan nilai tundaan jam puncak pagi, siang, dan sore sebesar 63,27 detik; 60,51 detik; dan 61,78 detik.

Kata kunci : Simpang bersinyal, Kapasitas simpang, Derajat kejenuhan, Tundaan, tingkat pelayanan simpang.

ABSTRACT

IRFAN NUR AZAM, 2018*, Evaluation and Strategy for Handling Performance of the Kentungan Intersection District Sleman, D.I.Yogyakarta. (guided by Nursyamsu Hidayat ST, MT, Ph.D)*

Kentungan intersection is one of the signalized intersections in district Sleman, D.I.Yogyakarta which has heavy traffic and frequent congestion. The value of poor service levels at the Kentungan intersection greatly disrupts transportation accessibility. The value of poor service level is needed evaluation and analysis of Kentungan intersection to carry out a strategy for handling the performance of the Kentungan intersection so that the value of service level can be improved.

The intersection performance analysis process is carried out with the stages of analysis of traffic data and environmental conditions of intersections to obtain traffic volume and capacity and used to determine the performance level of the Kentungan Intersection namely the degree of saturation and delay intersection. The performance value of Kentungan intersection is then used to determine the handling strategy to increase the value of the Kentungan intersection service level.

The results of the Kentungan intersection analysis concluded that the existing performance conditions of Kentungan intersection were very bad and did not meet the requirements so that a handling strategy was needed. The final handling strategy is obtained bythe value of capacity intersection of the peak hours of morning, afternoon, and evening is 915.25 pcu / hour; 903.5 pcu / hour; and 903.25 pcu / hour, the value of the degree of saturation of the peak hours of morning, afternoon, and evening is 0.64; 0.51; and 0.58, and the value of peak hours of morning, afternoon and evening hours is 63.27 seconds; 60.51 seconds; and 61.78 seconds.

Keywords: Signalized intersection, intersection capacity, degree of saturation, delay, level of intersection service.