

ABSTRAK

Ruang Henti Khusus sepeda motor merupakan salah satu fasilitas bagi sepeda motor untuk berhenti di persimpangan selama fase merah. Ruang Henti Khusus ini telah diujicobakan dalam skala terbatas untuk mendukung pergerakan sepeda motor pada persimpangan bersinyal di kota-kota besar di Indonesia.

Penelitian ini bertujuan untuk mengevaluasi simpang tersebut kemudian direncanakan Ruang Henti Khusus sesuai dengan banyaknya penumpukan sepeda motor selama fase merah di persimpangan tersebut. Evaluasi simpang dilakukan berdasarkan data primer dan data sekunder. Metode perhitungan berpedoman pada Manual Kapasitas Jalan Indonesia (MKJI) 1997 dan Pedoman Perencanaan Teknis Ruang Henti Khusus (RHK) Sepeda Motor pada Persimpangan Bersinyal di Kawasan Perkotaan.

Perilaku lalu lintas persimpangan kondisi eksisting adalah, kapasitas pendekat barat 335 smp/jam, DS (Derajat Kejenuhan) 1,878, panjang antrian 97 m dan tundaan rata-rata 157 det/smp. Kapasitas pendekat timur 342 smp/jam, DS (Derajat Kejenuhan) 2,295, panjang antrian 97 m, dan tundaan rata-rata 169,3 det/smp. Kapasitas pendekat utara 600 smp/jam, DS (Derajat Kejenuhan) 0,546, panjang antrian 157 m, dan tundaan rata-rata 69,2 det/smp. Kapasitas pendekat selatan 941 smp/jam, DS (Derajat Kejenuhan) 0,987, panjang antrian 245 m, dan tundaan rata-rata 111,6 det/smp.

Desain Ruang Henti Khusus pada pendekat utara yaitu 2 lajur dengan lajur pendekat dan luasnya 84 m²; pada pendekat selatan yaitu 2 lajur dengan lajur pendekat dan luasnya 84 m²; pada pendekat barat dan timur tidak memenuhi standar Dinas Departemen Pekerjaan Umum 2012 dalam perencanaan RHK.

Kata kunci: ruang henti khusus, perilaku lalu lintas

ABSTRACT

Special stopping space for motorbikes is one of the facilities for motorbikes to stop at intersections during the red phase. This special stopping space has been tested on a limited scale to support the movement of motorbikes at signalized intersections in large cities in Indonesia.

This research aims to evaluate the intersection and then plan a special stopping room according to the number of motorbikes piling up during the red phase at the intersection. Intersection evaluation is carried out based on primary data and secondary data. The calculation method is guided by the 1997 Indonesian Road Capacity Manual (MKJI) and Technical Planning Guidelines for Special Stop Spaces (RHK) for Motorcycles at Signalized Intersections in Urban Areas.

The traffic behavior of the existing intersection is, west approach capacity 335 pcu/hour, DS (Degree of Saturation) 1,878, queue length 97 m and average delay 157 sec/pcu. East approach capacity is 342 pcu/hour, DS (Degree of Saturation) is 2,295, queue length is 97 m, and average delay is 169.3 sec/pcu. North approach capacity is 600 pcu/hour, DS (Degree of Saturation) is 0.546, queue length is 157 m, and average delay is 69.2 sec/pcu. South approach capacity is 941 pcu/hour, DS (Degree of Saturation) 0.987, queue length 245 m, and average delay 111.6 sec/pcu.

The special stopping space design on the northern approach is 2 lanes with an approach lane and an area of 84 m²; on the southern approach, namely 2 lanes with an approach lane and an area of 84 m²; on the western and eastern approaches do not meet the 2012 Age Work Department Service standards in RHK planning.

Keywords: special stopping space, traffic behavior