

INTISARI

Tingginya angka permintaan parkir di Jalan Jenderal Suprpto, Purwokerto yang tidak diimbangi dengan ketersediaan lahan parkir di luar badan jalan menyebabkan penggunaan badan jalan sebagai lahan parkir tidak dapat dihindari. Keberadaan parkir di badan Jalan Jenderal Suprpto menyebabkan lebar jalur lalu lintas efektif berkurang dan lalu lintas menjadi terhambat. Penelitian ini bertujuan untuk menganalisis karakteristik parkir di badan Jalan Jenderal Suprpto, menganalisis pengaruh parkir di badan jalan terhadap kinerja ruas Jalan Jenderal Suprpto, dan memberikan usulan solusi agar kinerja ruas Jalan Jenderal Suprpto meningkat.

Analisis karakteristik parkir di badan jalan dilakukan dengan metode analisis statistik deskriptif. Sementara itu, kinerja ruas jalan dianalisis menggunakan Manual Kapasitas Jalan Indonesia (MKJI) 1997 dan dimodelkan menggunakan perangkat lunak PTV Vissim 2022. Untuk mendapatkan data primer, dilakukan survei volume lalu lintas dengan *traffic counting*, survei kecepatan setempat dengan metode dua orang pengamat, dan survei patroli parkir. Data sekunder berupa jumlah penduduk Purwokerto diperoleh dari *website* BPS Kabupaten Banyumas, sedangkan peta lokasi penelitian didapatkan dari Google Maps.

Hasil analisis karakteristik parkir menunjukkan jika parkir di badan Jalan Jenderal Suprpto tidak bermasalah karena indeks parkir < 1 . Akan tetapi, dengan adanya parkir di badan Jalan Jenderal Suprpto, lebar jalur lalu lintas efektifnya berkurang dari 8,1 m menjadi 4,7 m sehingga kinerja ruas jalan menurun. Berdasarkan analisis menggunakan MKJI 1997, diperoleh kecepatan rata-rata kendaraan ringan di Jalan Jenderal Suprpto saat ada parkir di badan jalan sebesar 33,48 km/jam, derajat kejenuhan rata-rata sebesar 0,54 dan tingkat pelayanan jalan C. Dari pemodelan lalu lintas yang paling kritis menggunakan Vissim, diperoleh kecepatan kendaraan saat ada parkir di badan jalan sebesar 28,61 km/jam, derajat kejenuhan sebesar 0,65, dan tingkat pelayanan jalan C. Kemudian, dengan memindahkan parkir di badan jalan ke lahan *off-street parking*, kecepatan rata-rata kendaraan ringan hasil analisis MKJI 1997 meningkat menjadi 51,63 km/jam, sedangkan kecepatan kendaraan hasil simulasi Vissim meningkat menjadi 29,38 km/jam. Selain itu, tingkat pelayanan Jalan Jenderal Suprpto juga meningkat menjadi B.

Kata kunci: karakteristik parkir, derajat kejenuhan, tingkat pelayanan, MKJI 1997, Vissim.

ABSTRACT

The high demand for parking on Jenderal Suprpto Street, Purwokerto, which is not balanced with the availability of off-street parking facilities, makes using the street as parking lots unavoidable. On-street parking on Jenderal Suprpto Street causes the effective traffic lane width to be reduced and traffic is hampered. This study aims to analyze on-street parking characteristics on Jenderal Suprpto Street, analyze the impact of on-street parking on the performance of Jenderal Suprpto Street, and propose a solution so that the performance of Jenderal Suprpto Street increase.

Analysis of on-street parking characteristics was carried out by descriptive statistical analysis. Meanwhile, the street performance was analyzed using the Indonesian Highway Capacity Manual (IHCM) and modeled using PTV Vissim 2022 software. Primary data were collected by a traffic volume survey with traffic counting, a speed survey using the two-person observer method, and a parking patrol survey. Secondary data in the form of the population of Purwokerto was gained from the BPS Banyumas Regency website, while the research location map was obtained from Google Maps.

The analysis of parking characteristics showed that on-street parking facilities on Jenderal Suprpto Street could accommodate the demand for parking because the parking index was < 1 . However, the effective traffic lane width was reduced from 8,1 m to 4,7 m and street performance was decreased because of on-street parking. Based on the analysis of the street performance when there was on-street parking using IHCM, the average speed of light vehicles on Jenderal Suprpto Street was 33,48 km/hour, the average degree of saturation was 0,54, and the level of service was C. The Vissim modeling results of the most critical traffic showed that the speed of vehicles on Jenderal Suprpto Street was 28,61 km/hour, the degree of saturation was 0,65, and the level of service was C. Furthermore, by relocating on-street parking to an off-street parking facility, the average speed of light vehicles from the IHCM analysis increased to 51,63 km/hour. Meanwhile, the speed of vehicles simulated by Vissim increased to 29,38 km/hour. In addition, Jenderal Suprpto Street's level of service also increased to B.

Keywords: parking characteristics, degree of saturation, level of service, IHCM, Vissim.