

ABSTRAK

Pertumbuhan ekonomi di kota Yogyakarta semakin meningkat. Usaha yang sedang populer adalah pada bidang kuliner. Pembangunan Restoran Tempo Gelato memiliki dampak bagi lalu lintas di simpang Taman Siswa. Tujuan dari penelitian ini adalah untuk mengetahui kinerja simpang Taman Siswa dan solusi yang dapat diberikan terhadap adanya Tempo Gelato. Metode yang dilakukan dengan mengumpulkan data dengan cara survei traffic counting, lalu dilakukan analisis arus lalu lintas dengan metode MKJI 1997 ditambah hasil dari analisis bangkitan dan tarikan. Hasil yang didapatkan nilai kapasitas lengan Utara 353 smp/jam, lengan Selatan 205 smp/jam, Timur 393 smp/jam dan Barat 504 smp/jam. Nilai DS untuk lengan Utara 0,402, lengan Selatan 0,989, Timur 0,531, dan Barat 0,408. Panjang Antrian lengan Utara 46 m, lengan Selatan 100 m, lengan Timur 48 m, dan Barat 31 m. Tundaan rata - rata lengan Utara 49,427det/smp, lengan Selatan 174,039 det/smp, lengan Timur 32,401det/smp, dan Barat 40,764 det/smp. Tundaan rata – rata 76,781det/smp, sehingga didapat tingkat pelayanan simpang bernilai F (Buruk sekali) menunjukkan bahwa pembangunan Restoran Tempo Gelato memiliki dampak bagi simpang Taman Siswa. Setelah diberikan alternatif pengaturan ulang waktu siklus didapatkan nilai kapasitas lengan Utara 258 smp/jam, Selatan 330 smp/jam, Timur 654 dan Barat 827 smp/jam. nilai DS lengan Utara 0,589, Selatan 0,621, Timur 0,602, dan Barat 0,612. Panjang Antrian lengan Utara 31 m, Selatan 50 m, Timur 42 m, dan Barat 29m. Tundaan Rata - Rata lengan Utara 46,162 det/smp, Selatan 40,203 det/smp, Timur 36,299 det/smp, dan Barat 38,539 det/smp. Tundaan rata – rata simpang diperoleh 42,865det/smp, sehingga didapat tingkat pelayanan simpang bernilai E (Buruk). Terjadi peningkatan dari F menjadi E.

Kata kunci: antrian, lalu lintas, simpang, tempo gelato, volume.

ABSTRACT

The growth of economy in Yogyakarta is increasing. The business that very popular now is on culinary field. Building Tempo Gelato Restaurant have many effect for the traffic in Taman Siswa intersection. The purpose of this research is to analyze the performance of Taman Siswa Intersection and to give a solution because the existence of Tempo Gelato. This research method is collect data with traffic counting, then do the traffic analysis with MKJI 1997 method plus the result of analysis trip generation and trip attraction. The result from north side capacity is 353 smp/hour, south side is 205 smp/hour, east is 393 smp/hour, and west is 504 smp/hour. DS for north side is 0,402, south side is 0,989, east is 0,531, and west is 0,408. Long queues for the north side is 46 m, south side is 100 m, east is 48 m, and west is 31 m. The average of long delay for north side 49,427 sec/smp, south side is 174,039 sec/smp, east is 32,401 sec/smp, and west is 40,764 sec/smp. The average of long queues is 76,781 sec/ smp, so the result of service level is F(very bad). After give the alternative to reset the cyclus time, the result for the north side capacity is is 258 smp/hour, south side is 330 smp/hour, east is 654 smp/hour, and west is 827 smp/hour. DS for north side is 0,589, south side is 0,621, east is 0,602, and west is 0,612. Long queues for the north side is 31 m, south side is 50 m, east is 42 m, and west is 29 m. The average of long delay for north side 46,162 sec/smp, south side is 40,203 sec/smp, east is 36,299 sec/smp, and west is 38,539 sec/smp. The average of long queues is 42,865 sec/ smp, so the result of service level is E (bad). The service level is increase from F to E.

Key words : intersection, queues, tempo gelato, traffic, volume