ABSTRAK

Muhammad Eric Hidayat, NIM. 5191250010 : Analisis Tingkat Pelayanan Jalur Pedestrian di Ruas Jalan Balai Kota, Kota Medan

Ruas Jalan Balai Kota merupakan area komersial dengan aktivitas pejalan kaki yang ramai pada waktu-waktu puncak (*peak hour*), maka dibutuhkan prasarana jalur pedestrian yang memadai untuk mendukung mobilitas pejalan kaki. Oleh sebab itu perlu dilakukan penelitian untuk mengetahui kondisi jalur pedestrian, karakteristik pergerakan pejalan kaki, hubungan antar variabel karakteristik pergerakan pejalan kaki, kapasitas jalur pedestrian, dan tingkat pelayanan jalur pedestrian di ruas Jalan Balai Kota.

Metode penelitian yang digunakan adalah pendekatan kuantitatif melalui pengumpulan data primer dari observasi langsung, yaitu data geometri jalur pedestrian, fasilitas pendukung, karakteristik pergerakan pejalan kaki (arus, kecepatan, kepadatan, ruang, dan rasio) yang dianalisis menggunakan Model Greenshield. Selain itu diperlukan data sekunder dari studi literatur berupa PERMEN PU Nomor 03/PRT/M/2014 tahun 2014, Pedoman Perencanaan Teknis Fasilitas Pejalan Kaki Nomor 02/SE/M/2018 Tahun 2018, dan Nomor 18/SE/Db/2023 Tahun 2023, serta penelitian terdahulu. Data primer dan sekunder tersebut, kemudian dielaborasi dan dijelaskan melalui analisis deskriptif untuk mencapai tujuan penelitian.

Hasil penelitian menunjukkan bahwa kondisi jalur pedestrian di ruas Jalan Balai Kota, seperti lebar jalur, fasilitas pendukung, dan ruang gerak disabilitas belum sesuai dengan standar dan peraturan di atas. Karakteristik pergerakan pejalan kaki yaitu arus 25,33 org/m/mnt, kecepatan 86,43 m/mnt, kepadatan 0,34 org/m^2, ruang 570,27 m^2/org, dan rasio 0,19, menggambarkan jalur pedestrian yang cukup sibuk. Grafik hubungan antar variabel karakteristik pergerakan pejalan kaki menunjukkan hubungan yang saling mempengaruhi. Kapasitas atau jumlah arus/volume terbesar ada pada segmen II yaitu 2,60 org/mnt/m. Tingkat pelayanan jalur pedestrian di ruas Jalan Balai Kota termasuk kategori "A" apabila ditinjau berdasarkan variabel kecepatan dan ruang. Kategori "B" apabila ditinjau berdasarkan variabel rasio dan "C" berdasarkan variabel arus. Hasil tersebut mengindikasikan perlunya perbaikan dan peningkatan fasilitas jalur pedestrian di ruas Jalan Balai Kota untuk meningkatkan kenyamanan dan keamanan pejalan kaki.

Kata Kunci: Tingkat Pelayanan, Jalur Pedestrian, Trotoar, Karakteristik Pergerakan Pejalan Kaki, Kapasitas Jalur Pedestrian, Model Greenshield.

ABSTRACT

Muhammad Eric Hidayat. NIM. 5191250010 : Analysis of Pedestrian Path Service Levels on Jalan Balai Kota, Medan City

The Jalan Balai Kota is a commercial area with high pedestrian activity during peak hours, necessitating adequate pedestrian infrastructure to support pedestrian mobility. Therefore, a study is needed to assess the pedestrian path conditions, pedestrian movement characteristics, the relationship between pedestrian movement characteristic variables, pedestrian path capacity, and the service level of the pedestrian path on Jalan Balai Kota.

The research method employed a quantitative approach by collecting primary data from direct observation, including pedestrian path geometry data, supporting facilities, and pedestrian movement characteristics (flow, speed, density, space, and ratio) analyzed using the Greenshield method. Additionally, secondary data from literature studies were required, such as PERMEN PU Nomor 03/PRT/M/2014, Pedoman Perencanaan Teknis Fasilitas Pejalan Kaki Nomor 02/SE/M/2018, and Nomor 18/SE/Db/2023, as well as previous research. The primary and secondary data were then elaborated and explained through descriptive analysis to achieve the research objectives.

The research results indicated that the condition of the pedestrian path on Jalan Balai Kota, such as path width, supporting facilities, and space for individuals with disabilities, does not meet the aforementioned standards and regulations. The pedestrian movement characteristics, with a flow rate of 25.33 people/m/min, speed of 86.43 m/min, density of 0.34 people/m², space of 570.27 m²/person, and ratio of 0.19, indicated a fairly busy pedestrian path. The graph of the relationship between pedestrian movement characteristic variables showed a mutual influence. The capacity or largest flow/volume was on segment II, 2.60 people/min/m. The service level of the pedestrian path on Jalan Balai Kota fall into category "A" based on the speed and space variables, category "B" based on the ratio variable and "C" based on the flow variable. These results indicate the need for improvements and enhancements to the pedestrian path facilities on Jalan Balai Kota to increase the comfort and safety of pedestrians.

Keywords: *Level of Service, Pedestrian Path, Sidewalk, Pedestrian Movement Characteristics, Pedestrian Path Capacity, Greenshield Method.*