PERFORMANCE ANALYSIS AND REQUIREMENTS OF SIDEWALKS LANE IN SUNGAI JODOH

Final Project

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INTERNATIONAL CIVIL ENGINEERING PROGRAM

DEPARTMENT OF CIVIL ENGINEERING FACULTY OF ENGINEERING UNIVERSITAS ATMA JAYA YOGYAKARTA

2020

APPROVAL

Final Project

PERFORMANCE ANALYSIS AND REQUIREMENTS

OF SIDEWALKS LANE IN SUNGAI JODOH

Made by :

Muhammad Rah Hutomo Bagas Kendita

NPM : 15 13 16286

Have been approved by the Supervisor

Yogyakarta, November 6th 2020

Supervisor,

(Dr., Ir., J. Dwijoko Ansusanto., M.T.)

Known by :

Department of International Civil Engineering Chairman,

(AY. Harijanto Setiawan, Ir., M.Eng., Ph.D.)

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Have been examined and approved by the examination committee

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OF SIDEWALKS LANE IN SUNGAI JODOH

It is the result of my own work and not a result of plagiarism of other people's work. Ideas, research data, and quotes directly or indirectly derived from the writings or ideas of others expressly provided in this Final Project. If it is proved later that the Final Project is the results of plagiarism, which I get the certificate would be canceled and I will return to the Rector of the University of Atma Jaya Yogyakarta.

Yogyakarta, November 2020

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Writer's understand that this report may have mistaken and have space for further improvement. Due to this reason, any suggestion and critics will be accepted. Finally, I hope this report may be useful for the reader and me.

Yogyakarta, November 2020

Muhammad Rah Hutomo Bagas Kendita

ABSTRACT

PERFORMANCE ANALYSIS AND REQUIREMENTS OF SIDEWALKSLANE IN SUNGAI JODOH, Muhammad Rah Hutomo Bagas Kendita, Student ID Number 15 13 16286, year of 2020, Transportation Engineering, International Civil Engineering Program, Department of Civil Engineering, Universitas Atma Jaya Yogyakarta.

Batam is one of the largest cities in the Riau Islands Province, Indonesia, which is often visited by domestic and international tourists. As a city located on the border of Indonesia, Batam is a stopover that is very often visited by tourists who want to travel into the country or abroad. The growing number of tourists in Batam will affect the availability of facilities to serve all activities, one of them is a pedestrian facility.

The analysis data had been use using the quantitative method and observation method. The quantitative method consists of measurement, statistical, mathematical data. The data collection from observation of 1 week is chosen to be one day only because the results obtained within one week are the same. Observation method in the field directly as a way of collecting data.

From the result at observation location 1, 2, 3 and 4 has Level Of Service grade A, by using formula v=Vp/15We, the step is obtaining pedestrian volume with formula *Pedestrian volume = (Number of pedestrian)/(Interval time (15 min)) / Sidewalk width*, and then obtaining the sidewalk width by using formula W V/35+0,5, then obtaining pedestrian velocity by using formula s = d/t, and the last is obtaining Level of Service by using formula v=Vp/15We.

The performance of sidewalk in Sungai Jodoh, Batam is already in good condition.

Keywords: Pedestrian, Sidewalk, Velocity, Level of Service, Facility, Performance

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