Special Research Study Title Traffic Impact Analysis of Retail and Wholesale on

Theparak Road (Highway 3268)

Special Research Study Credits 6

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Abstract

This research is to study traffic impact analysis of retail and wholesale store opening. "The Highway Capacity Manual (HCM 2000)" was used. Data in the present year and the customer predictions from the similar project nearby were used to analyze Volume Capacity Ratio (V/C) and Level of Service (LOS). The result of the analysis for volume capacity ratio (V/C) at Theparak road is between 0.00 - 0.60, which does not have an effect on the traffic. The Level of Service (LOS) is "C". If there is the development of retail and wholesale, the level of service will change to (LOS) "D". The simulation approach by Corsim program was used to evaluate traffic conditions under the proposed alternative with overpass and closed u-turn in front of the project. From simulation results, if there is a bridge at this junction, it will get better for network, but not much when compared to the present day traffic with bridge and closed u-turn. The results show that total travel distance decreases 4.87%, total move time decreases 6.21%, total delay decreases 87.13%, total travel time decreases 46.31% and average speed increases 77.22%, that resolves the traffic network problem.

Keywords: Level of Service / Traffic Impact Analysis / Traffic Simulation /

Volume Capacity Ratio