

## ABSTRACT

### THE EFFECTS OF ROAD WIDENING TOWARD THE INCREASING OF TRAFFIC PERFORMANCE (The Case Study of Soekarno-Hatta Road/ Bypass Bandar Lampung)

By

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*The high growth number of vehicles will increase the movement and the use of transport infrastructure. Road widening is one of the action that can be used as the solution. However, this solution also increase the traffic performance. This is because people will switch to use the new road widened because they believe this road can accommodate the existing traffic volume. For finding out the effects of road widening toward the increasing of traffic performance and road capacity, it is necessary to conduct a research and an analysis.*

*The conducted research is the traffic volume survey and the speed. This survei was conducted on Thursday and Friday at the road section between the intersection of Ki maja road and Untung Suropati. The calculation method used is Manual Indonesia Highway Capacity (MKJI, 1997) for the outer city road.*

*The analysis result showed that the road widening was influence the traffic performance improvement. The volume of traffic to Ki Maja intersection before was 1485.5 smp/hour and after became 1783.8 smp/hour while direction toward Untung Suropati intersection at 1249.3 smp/hour and after became 1748.2 smp/hour. The road capacity increased 2.63 x into 3953.14 smp/hour. The level of service (LOS) is also increased, the direction toward Ki Maja intersection before was E and the opposite direction was D, increased to A for both directions with degree of saturation (DS) direction toward Ki Maja intersection 0.4512 and 0.4422 opposite direction. Mean flow speed when survey at 46,55 km/h and free flow speed at 63,67 km/h. To determine the traffic performance of the next 3 years the calculation of prediction with two scenarios, that an increase vehicle growth and assumption height side friction. The result is 3 year come the level of service Soekarno-Hatta road decreased to C.*

*Key words: level of service, road widening, traffic performance.*