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TRAFFIC MANAGEMENT MEASURES ON SELECTED ROAD STRETCH OF A STATE HIGHWAY

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Abstract

This paper investigated the transportation system management measures for the corridor of Appannapally to I Town P.S with the suggestion of Mahabubnagar Municipal Corporation (MMC). The following traffic studies have been carried out to evaluate the performance of the corridor. The corridor performance evaluation has been done for Appannapally to I Town P.S Corridor which includes six intersections and five mid blocks. Capacity and Level of Service of all the mid blocks were found out followed by the Delay and Level of Service of Intersections. Delays at mid blocks were also found out by floating car survey, followed by the identification of Bottlenecks in all the segments and Travel time comparisons and speed profiles were also done for all the segments individually. The corridor performance evaluation has been done for Appannapally to I Town P.S Corridor which includes six intersections and five mid blocks. Capacity and Level of Service of all the mid blocks were found out followed by the Delay and Level of Service of Intersections. Delays at mid blocks were also found out by floating car survey, followed by the identification of Bottlenecks in all the segments and Travel time comparisons and speed profiles were also done for all the segments individually. The corridor type of analysis enables the traffic engineer to understand different types of traffic problems in a comprehensive manner such that compatible solutions can be arrived at. This approach is in contrast to solving traffic problems in an isolated manner as per the corridor type of analysis, gives a better inside to understand traffic problems by correlating the bottle neck situations by measuring various types of traffic parameters. This has registered high growth rates of population and traffic adopting a corridor type of analysis approach. In future these facilities could be updated following a similar approach in order to reduce delays accidents and geometric related parameters. The corridor performance evaluation has been done for Appannapally to I Town P.S Corridor which includes six intersections and five mid blocks. Capacity and Level of Service of all the mid blocks were found out followed by the Delay and Level of Service of Intersections. Delays at mid blocks were also found out by floating car survey, followed by the identification of Bottlenecks in all the segments and Travel time comparisons and speed profiles were also done for all the segments individually. The peak hour volume is high for Padmavathi Colony Intersection than all other intersection with in the corridor and similarly Srinivas Colony – Padmavathi Colony segment in mid blocks. When the delays at mid block are considered I TOWN P.S – Mettugadda mid block is having more delays in the peak time

and least delays have occurred for Srinivas Colony – Padmavathi Colony mid block. Total four bottlenecks were identified in the entire corridor out of ten segments. They are Appannapally – Yenugonda, Srinivas Colony – Padmavathi Colony, Mettugadda– New Town and I TOWN P.S to New Town and the largest Bottleneck was identified in I TOWN P.S – Mettugadda segment. When the overall corridor's performance is considered, it can be improved when the pedestrian crossings are made easier for which the management measures have already been suggested. The encroachments are another severe problem, which is to be taken very seriously due to their adverse impact on Capacity. For the better understanding of the corridor it is suggestible to consider both morning and evening peaks. A short corridor can be taken and evaluate its performance and can judge how the corridor is performing with the suggested management measures by simulation. Projection of the traffic data with the present and past data of the same corridor can be carried out to estimate the future traffic conditions with the existing infrastructure and then suggest the measures to make the corridor serve effectively for future traffic conditions.

Key words: Corridor, Mid block, Capacity and Level of Service, Simulation, Traffic conditions