

A Review on Traffic Management In Bangalore

Sameeuzzuma¹, Preetam², Panduranga³, Nithin Gowda⁴
^{1, 2, 3, 4} DAYANANDA SAGAR COLLEGE OF ENGINEERING

Abstract- Pre-planned town is designed considering future development and expansion, whereas there is no scope of easy development in unplanned town. So, any unplanned town is likely to face various problems as population increases; one such problem is traffic congestion. Vehicular traffic increases with increase in population, Industrial growth, growing commercial activities etc. Bangalore is a city in Karnataka, which is IT hub, which attracts students and people seeking employment. Hence, traffic congestion is obvious during peak hours. Our project work revolves around this problem. Our objectives are to find reason for congestion and solution for the same. For these, we will do surveys and will analyze it and will try to give best possible solution which will improve vehicle efficiency, user convenience, and intersection capacity and will decrease risk of accidents.

I. INTRODUCTION

Traffic engineering is a branch of civil engineering which uses engineering techniques to achieve safe and efficient movement of people and goods on roadways. It focuses mainly on research for safe and efficient traffic flow, such as road geometry, sidewalks and crosswalks, cycling infrastructure, traffic signs, road surface markings and traffic lights. Traffic engineering deals with the functional part of transportation system, except the infrastructures provided.

Typical traffic engineering projects involve designing traffic control device installations and modifications, including traffic signals, signs, and pavement markings. However, traffic engineers also consider traffic safety by investigating locations with high crash rates and developing countermeasures to reduce crashes.

Bangalore's population has grown dramatically in the last decade, and the city now ranks among the top metropolitan areas in the country, both in terms of population and in terms of the economic activity. The city has undergone a rapid transformation into one of the most storied economic centers of the world, and attracted millions of job-seeking migrants. Increasing traffic volumes and its associated adverse impacts on congestion and air quality is a key problem in Bangalore and elsewhere in India and this situation is likely to deteriorate further. Addressing the issue of travel demand solely through large scale road construction is neither a viable nor a sustainable option as the impact on our local

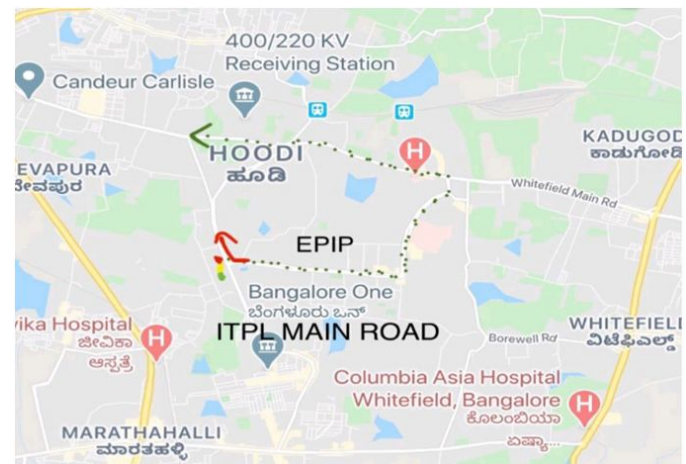
communities would be huge in terms of the environment, land take, property demolition and isolation. The need, therefore to find other solutions that can meet peoples' desire to travel, by creating a Traffic Management Study plan that includes both short-term and long-term, the ones that can begin to grapple with the complex demands of traffic and transport management. What adds to the traffic pressure in Bangalore in particular is its very little scope for expansion of roads and the need to use existing roads for smooth movement of vehicles

II. STUDY AREA

- 1) White field
- 2) Sankey road to dasarhalli

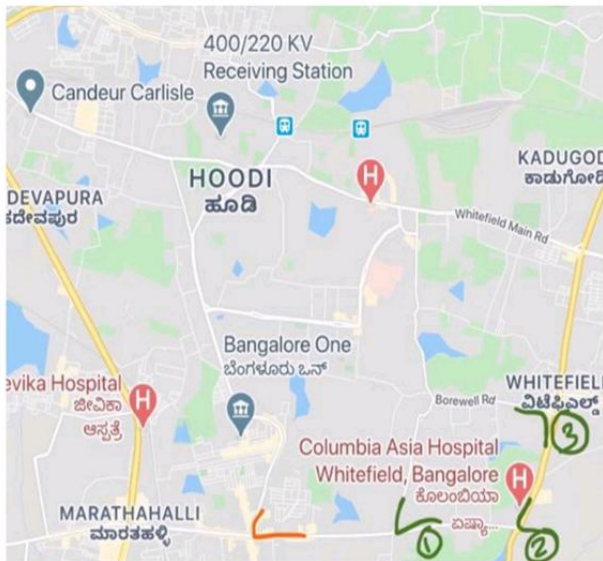
III. TRAFFIC MANAGEMENT PLAN EXISTING AND PROPOSAL

GRAPHITE INDIA (EPIP)



REDLINE SHOWS THE BANNED RIGHT TURN
 GREEN LINE SHOWS PROPOSAL ROUTE

KUNDANAHALLI GATE



1.1 DETAILS OF THE ROUTE CONSIDERED:

- a) Palae road to CV raman road.
- b) Length of the road is 7km
- c) Connects mallechwaram to BK nagar/Yeshwantpur
- d) There are hotels, petrol pumps,railway station metro, temple, multiplex, commercial complexes.
- e) 4 way intersection at Mekhri circle.
- f) Main road to reach yeshwantpur station from mallechwaram.
- g) CV raman road
- h) Jaymahal road
- i) Bellary road

IV. CONCLUSION& PROPOSALS ACCORDING TO OUR STUDY FOR SANKEY ROAD TO DASARAHALLI

INTERVENTIONS AT KUNDANHALLI GATE

The operational efficiency of Kundanhalli Gate was evaluated with respect to both existing and proposed conditions. As per the analysis, the delay of 142 sec/vehicle has been reduced to 42 sec/vehicle reducing the delay by 96 sec/vehicle. This reduction in delay will increase the throughput from 3840 to 4653 increasing the throughput by 1268 vehicles. The

- ITS can be implemented at yeshwantpur circle as it is very busy junction, Japanese technology has come with innovative way which reduces the delay in waiting time in traffic signals.
- Road shoulders near the yeshwantpur circle need to be immediate repair or even reconstruction.
- Some roadway lights are covered up by trees in the lane dividers, which decreases visibility of the users because light is blocked by trees.
- More than half stretch of the road surface is damaged, which is reason for contraction of available road way for users.
- Tree leaves should be trimmed around lights or height of street lights should be lowered.
- Railings should be provided near sadhshivnagar police station as there is bus stop nearby there are many passenger crossing the roads which causes fatal accidents.
- It also improves aesthetic view of the roads.
- We also seen that some part of the roads were covered with dust, which disturbs the driver’s vision. Sadhashivnagar police station:
- Road markings for pedestrian safety.
- Widening of Jalahalli road which is alternative route which allow smooth flow of traffic which is not turning.
- Stopping vehicles, especially auto rickshaws near intersection should be restricted.
- Traffic personnel during peak hours: 12pm to 2pm Other Suggestions
- Its is seen that many students crossing the road to college which is India

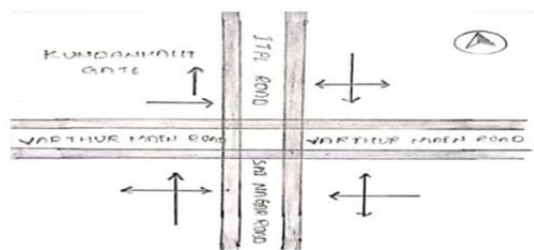


FIGURE 4:EXISTING PHASE

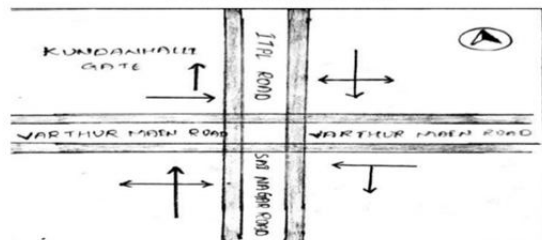


FIGURE 5:PROPOSED PHASE

ROUTE 2: SANKEY ROAD TO WHITEFIELD.

1.0 SELECTED ROUTE

- 1. Route starts from Sankey road to dasarahalli metro
- 2. Route ends at dasarahalli metro to station
- 3. Total alternative routes 3

REFERENCES

- [1] TopicCongestion and Quality of Intersections
- [2] Bass,patrica,Congestion and Quality of Intersections

- [3] An Approach towards Traffic Management System using Density
- [4] Calculation and Emergency. (Farheena Shaikh, Dr.Prof. M. B. Chandak)
- [5] <https://www.newindianexpress.com/cities/bengaluru/2017/jan/12/silk-board-among-seven-worst-traffic-spots-1558822.html> .
- [6] <https://timesofindia.indiatimes.com/city/bengaluru/karnat-aka-has-2-crore-vehicles-bengaluru-choked-with-76-lakh/articleshow/66021773.cms>
- [7] https://openjicareport.jica.go.jp/pdf/12082459_02.pdf
- [8] http://www.arunachalpwd.org/pdf/IRC%20SP%2019%202001%20Manual%20for%20Road%20DRP%20_Pre-feasibility%20Study.pdf
- [9] <https://www.road.or.jp/international/pdf/1.pdf>
- [10] https://www.researchgate.net/publication/301777174_TR_AFFIC_CENSUS_AND_ANALYSIS_A_CASE_STUDY
- [11] <https://economictimes.indiatimes.com/news/politics-and-nation/bengaluru-bmtc-flags-off-intelligent-transport-system-in-low-key-manner/articleshow/52435156.cms?from=mdr>