

“A Case Study Traffic Problem and Road Accident of Surat City”

Yashdeep matariya¹, Himanshu Padhya²

¹ Post Graduate Student, Town and Country Planning,

Sarvajanik College of Engineering & Technology, Surat – 395001 ² Associate Professor in Faculty of Civil Engineering,

Sarvajanik College of Engineering & Technology, Surat – 395001

ABSTRACT: -

Surat city is fast developing city of Gujarat. According to smc data surat city population is 71, 85,000. And population growth is 4.52%. Now a days many problem of city. Traffic problem are most important problem in the city. Poor road network condition are there on daily basic traffic problem. Traffic accident, congestion, environmental pollution and many problem are there because of rapid increase of motorization rate. The main objective of this paper. How to reduce the traffic problem and to provide batter transportation facility. Mainly crossing road and circle are more space are provided, proper signal are provided, crossing and foot over bridge and proper road network and road pattern are develop to reduce the traffic problem.

KEYWORDS:- traffic problem, road accidents, road network, traffic delay, traffic congestion.

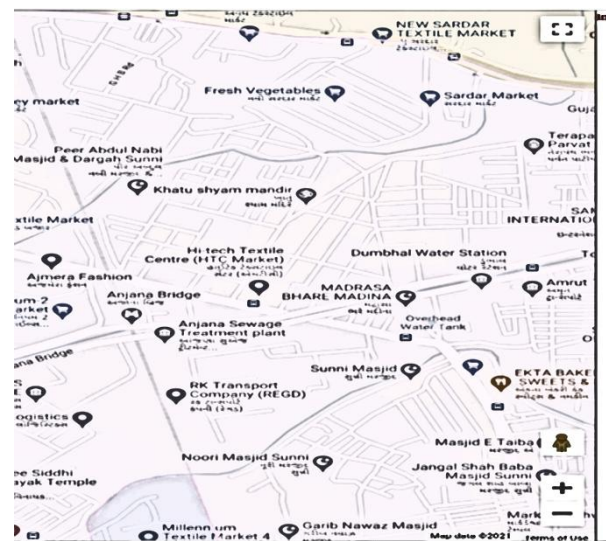
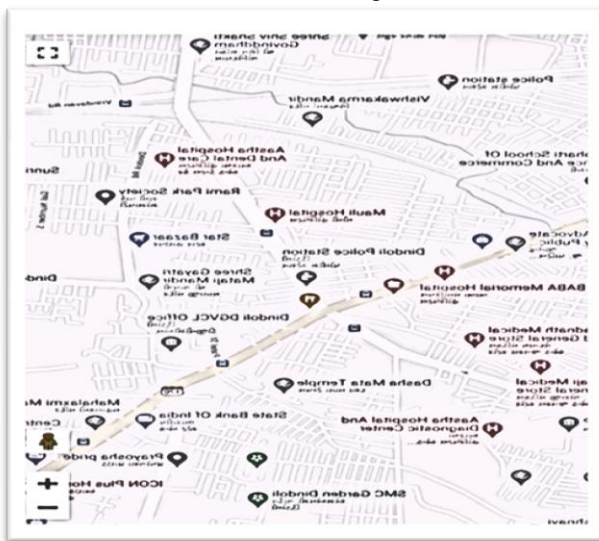
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I. INTRODUCTION: -

Traffic congestion are most pressing problem in many area of surat city. These problem are mainly moment of vehicle on the road as well as road connection. Traffic problem are mainly due to increasing population and migration of people. Lack of knowledge how to use of road section by people. Mainly road interaction are important part of the road section in channelizing traffic movement. In surat city many traffic congestion problem with no road network are traffic delay. Due to traffic congestion is harmful of environment, fuel consumption, safety problem and many more. Traffic supply and traffic demand due to the traffic congestion many gap are provided urban road interaction are poor and then traffic are delay. In surat city road network and vehicle and different movement like that left turn, right turn, u turn movement which seeks the same space at same time of vehicle by people. Thus road intersection and road network are major critical problem of traffic delay and safety and efficiency point of view.

Many researcher have similar problem to traffic related to traffic delay causes and characteristic at urban road interaction are according to literature. Traffic problem and various sustainable remedial measures are



road interaction signalization, proper parking with sign were suggested for intersection improvement (Geethu lal 2016). Auto mode had examined various traffic delay problem at a road intersection and suggested various

traffic improving measures such as high occupancy public transportation system, off-street parking spaces, NO PARKING and NO WAITING signs at the intersection was suggested (Atomode 2013). Shahriar Mohammad Raihan attempted to reduce the traffic congestion problem at banana intersection of Dhaka city of Bangladesh. The solution are provide the increase capacity of road and reducing the traffic demand by changing the intersection into ONE-WAY route thereby proposed FLYOVER BRIDGE and making of U-turn at Banani intersection.

Though some studies related to traffic problem are environmental problem such as environmental pollution, traffic delay, noise pollution, road intersection are so many problem and various issues at a local level. To reduce the traffic problem and idealized model to reduce the traffic congestion at the urban area. So in this paper traffic problem at urban road intersection and model town intersection where arterial road and the sub-arterial road of South-East zone of Surat city.



II. SOUTH EAST ZONE AREA OF SURAT CITY

In surat city, there are seven zone under Surat Municipal Corporation (SMC), which have South-East zone has 19.492 sq km area. In this zone population growth 88.37%. and the population are 7,48,340. There is also considerable slum population in this zone as well as road intersection. So study the two major road intersection are taken dindoli intersection and major town intersection. Dindoli road intersection of 36m having 2 lanes are crossing each other. At the intersection a primary school and commercial complex are in proximity. In the illegal parking, inadequate road marking, road signs, long road lines are identified with the area of study. To identify the problem due to the traffic issues and the improvement in the dindoli intersection. To identify the data to classified volume counts, pedestrian counts, signal phase cycle, directional movement, to the survey. Pedestrian counts and 24 hours in all direction to get the traffic volume. Signal phase cycle was calculated with proper stop watch and calculated with stopwatch in mobile. Peak hour to count the volume are identify the all direction of traffic volume. Traffic volume are converted into a standard unit it's called by passenger car unit (PCU). Pedestrian volume and unauthorized parking volume are calculating for 24 hour.

The survey location of dindoli main road intersection is shown in fig 1. This map is generated using Q-GIS by geo-referencing the latitudes and longitudes of the intersection. The dindoli intersection are 21.15428 and 72.86935 and the town intersection are 21.1889 and 72.8608.

III. MAJOR PROBLEM OF TRAFFIC PROBLEM AND ROAD ACCIDENT

In India have 136.64 cores (2019) data. So very high population to develop the town and many more facilities are provide to big challenge are there. So proper road network, road intersection, proper road paten, proper signal, pedestrian crossing not provided, so traffic problem and road accident major issues.

- In survey area UN authorized parking and provide the parking then pay some Rs then people are not park the vehicle in parking then happening and people are park vehicle to anyway and thane to problem the traffic jam.
- Now other problem are to not provide the proper signal to crossing road. And to provide the signal then not working the proper manner. And to than people are not follow the traffic rules and regulation. That's why the traffic problem in the city.
- Proper service road are not provide then in car and truck some issues and to repairing work are on the road side then traffic issues are develop in the city area and crossing site.
- During the traffic problem vehicle to noise pollution are generate the city or town area.
- Rapid and mass transits system are provided to the public transportation but people are not aware and not use the mass transit system and then traffic problem are develop. People are use to her/ his privet vehicle and road capacity are less and to generate the traffic issues. Government are provide the BRTS, city bus, railway and other facility are provided to job work people to every day are get one trip. But people are not use this facility the generate the traffic congestion.



FIG: - OBSTRUCTION OF ROAD SIGN ROAD



FIG:- NO ZEBRA CROSSING



FIG:- ANIMAL ON



FIG:- BRTS TRAFFIC ISSUES



FIG :- UN AUTHORISE PARKING



FIG:- NO SIGNAL PROVIDE THAN TRAFFIC PROBLEM

- During the peak hour are generate the traffic problem, because the everyday to go the job work and not follow traffic rules and not follow the traffic signal and the traffic problem are generate in the city area.
- Pedestrian are cross the road are not provided the zebra crossing and generate the road accident. Not provide to crossing bridge in the city area. During zebra crossing proper signal are not provided.
- Sometime road accident are block the many road lane and the generate the traffic jam.

- About the of traffic slowdowns are caused by temporary traffic flow distribution. These are the un welcome surprise that take over part of road way, such as an accident blocking lane, a construction zone causing the traffic problem are developed.
- Due to road repairing work and near the road side the construction site than due to sometime are generate the traffic problem.

IV. SOLUTION OF TRAFFIC PROBLEM AND ROAD ACCIDENT

- Proper road network and road sign are provided to reduce the traffic problem.
- In a city area are provide the traffic signal and zebra crossing are provided.
- The road sign are there but are obstructed merges. All these four-arms are 2-lane one-way type road.
- To improvement in a planning of existing design of road intersection.
- Provision of parking space.
- Proper signalization with adequate traffic police.
- To provide the guide the road users in advance.
- Optimize the traffic-light management.



FIG:- IMPROVEMENT OF STREET LIGHT IDEAS

- Use the CCTV to monitor road condition.
- Improve perception of buses.
- Improve the cycling infrastructure.
- To increasing bicycle road. We can direct people to use bicycle use, to step toward the solving of traffic problem.
- You must comply with traffic regulation and we know the parking prohibited at bus stop garage doors, or pedestrian road.
- To promoted and the awareness of people to use the public transport.
- To improvement of new smart work for reduce traffic problem.
- For pedestrian zebra crossing and to provide the bridge facility to reduce the traffic problem and reduce the road accident.
- Animal keep roaming on busy road all hour, and many time, the cause traffic jams as well as accident. The solution for reduce animal roaming on road, government or any particular authority have to forfeit them and fine owner for that irregularity.

V. CONCLUSION

Thus, the traffic jam is a very serious problem in the city area. To implement the traffic rules and regulation to reduce the traffic problem. To development of the smart city and road network and improvement of infrastructure to reduce the traffic problem. To awareness of public form the traffic rule and regulation and proper follow the traffic signal.

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