

Case Study on Telugu Thalli Flyover Visakhapatnam

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Abstract: - According to the ground report only 20% of the total traffic volume at that area are utilizing the flyover and the remaining 80% of the traffic are using old roads. in order to utilize the flyover to the maximum extent certain diversions are required for the flyover at various junctions.

In this present case study of Visakhapatnam flyover i.e TELUGU THALLI flyover, we calculate the traffic volumes on the flyover and roads below it by conducting traffic studies Estimate the traffic movement directions at various intersections and produce a traffic flow map of the roads. With the help of obtained data we suggest certain diversions to the flyover at specific junctions which have dynamic traffic movement.

I. INTRODUCTION

Visakhapatnam is a port city and industrial centre in the Indian state of Andhra Pradesh, on the Bay of Bengal. Visakhapatnam is the largest city of Andhra Pradesh. Due to rapid development of Visakhapatnam city as an industrial and IT hub, there is a need to improve the existing traffic management system for the entire city.

Over the last few years Visakhapatnam city has proven to the rest of the world through its fast paced growth and development in the country that it is destined for great avenues and grand possibilities in terms of industrial development, tourism, life style and culture. The industrialization and the accompanying urbanization are responsible for the rapid growth of the city. These developments started to attract more people from various places to migrate here. The population started increase radically.

In order to sustain the present and future population of Visakhapatnam the government of Andhra Pradesh proposed the flyover To overcome the traffic difficulties near the RTC complex and Railway station a flyover was proposed in the year 2003 and construction was carried for more than 5 years. At last in the year 2013 it was opened to the public. The flyover was titled TELUGU THALLI FLYOVER which starts from railway station and ends at CBM compound.

The flyover precedes over the highest traffic carrying intersections of Visakhapatnam.

II. THEORY AND PROCEDURE

Traffic engineering uses engineering methods and techniques to achieve the safe and time efficient movement of people and

goods on roadways. The safe and time efficient movement of the people and goods is dependent on Traffic flow, which is directly connected to the traffic characteristics. The three main parameters of a traffic flow are volume, speed and density. In the absence of effective planning and traffic management of the city, the current road infrastructure cannot cater the future needs of the city

Traffic congestion is a temporal condition on networks that occurs as utility increases, and is characterized by slower speeds, longer trip times, and increased queuing. When volume of traffic is high and so heterogeneous that the interaction between vehicles slows down the speed of traffic, traffic congestion is the result. As demand approaches the capacity of a road (or of the intersections along the road), traffic congestion sets in. When vehicles are fully stopped for the period of time, this is colloquially known as a traffic jam

III. FIELD METHODS: TRAFFIC SURVEY

1. Traffic volume study
2. Origin and destination study

Traffic Volume Study:

Traffic Volume Study Traffic data are needed in research, planning, designing and regulation phases of traffic engineering and are also used in establishing priorities and schedules of traffic improvements. The traffic engineer must acquire general knowledge of traffic volume characteristics in order to measure and understand the magnitude, composition, and time and route distribution of volume for each area under his jurisdiction.

Origin and destination survey:

we gathered information from public by conducting interview. We conducted interview to local auto drivers , students , bus drivers etc. desired routes can be obtained through interview survey.

IV. DATA COLLECTED

Average data of (1 week)

SANGAM SHARAT JUNCTION

Time	bus		Auto		Bike		Car		PCU	
	left	right	Left	right	Left	right	Left	right	left	right
7.00-7.15	0	0	6	3	26	11	8	0	27	8.5
7.15-7.30	0	0	9	2	20	18	12	3	31	14
7.30-7.45	0	0	5	4	31	19	11	0	31.5	13.5
7.45-8.00	0	0	8	6	33	23	9	2	33.5	19.5
8.00-8.15	0	0	11	3	38	26	14	1	44	17
8.15-8.30	0	0	10	5	32	28	20	3	46	22
8.30-8.45	0	0	13	3	29	32	18	2	45.5	21
8.45-9.00	0	0	12	7	26	31	16	4	41	26.5
9.00-9.15	0	0	9	9	33	36	12	4	37.5	31
9.15-9.30	0	0	13	6	36	38	13	5	44	30
9.30-9.45	0	0	14	7	40	46	14	3	48	33
9.45-10.0	0	0	13	6	38	48	16	4	48	34

477 270

COMPLEX JUNCTION

Time	Bus		Auto		Bike		Car		PCU	
	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
5.00-5.15	0	1	11	13	18	19	12	16	32	41.5
5.15-5.30	0	2	8	18	26	24	21	26	42	62
5.30-5.45	0	0	13	9	38	29	19	15	51	38.5
5.45-6.00	0	0	18	12	46	37	21	11	62	41.5
6.00-6.15	0	3	21	6	48	44	18	27	63	64
6.15-6.30	0	2	19	10	32	29	15	23	50	53.5
6.30-6.45	0	1	16	17	29	36	19	18	49.5	56
6.45-7.00	0	1	14	19	28	37	20	19	48	59.5
7.00-7.15	0	2	5	22	28	23	19	20	38	59.5
7.15-7.30	0	1	7	11	34	28	19	18	43	46
7.30-7.45	0	0	6	14	32	27	17	15	39	42.5
7.45-8.00	0	1	12	19	21	19	21	19	43.5	50.5

561 615



Fig 2

VI. CONCLUSION

1. As all the commercial buildings and main bus station are under the flyover, there should be a route to access them without any signals. In order to obtain this condition, flyover should be modified and provided with an entry and exit at an intersection.
2. Sangham sarath junction would be perfect position to provide the modification as it has the highest traffic flow and easy to provide landings as right of way of the road is optimum.
3. Providing a landing at RTC complex junction is also necessary but difficult to control the traffic during construction and land acquisition is also difficult.

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V. RESULTS

From the collected data we observed that most of the traffic are taking diversions at RTC complex and Sangham Sarath junction. So providing a landing from the flyover at this junctions can help in utilizing the flyover upto maximum extent and also reduces the traffic below the flyover.

Traffic flow maps :

Figure 1 represents the traffic flow map of the RTC junction

Figure 2 represents the traffic flow map of sangham sarath junction

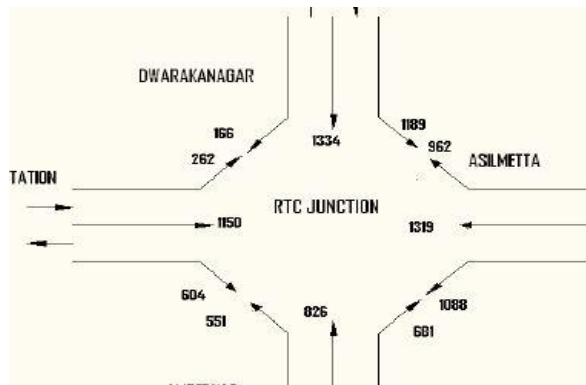


Fig 1

