# Review Paper on Channelizing Islands on Road TRAFFIC CONTROL ON FOUR LEGGED INTERSECTION OF ROAD

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Abstract—the current traffic situation is highly crowded. Not only does it prolong travel times, but it also contributes to environmental damage and health risks because of pollution from automobile fuels. As a result, I am now analyzing several draughts or already completed work in the area of traffic management systems for efficient vehicle movement on roads. Some modified channelizing islands are prepared, lowering the number of conflict locations, to avoid such serious problems. Vehicle traffic is also made easy by the divisional islands and channelized islands. Additionally, make room for free activities like U-turns and free hand movements like turning left in each of the four directions or visiting different channelizing islands.

Keywords—Traffic islands, Channelizing intersection, Intersection at grade, Divisional islands.

## I. INTRODUCTION

The currently government of India trying to enlarge the roads or the highways for the smooth movement of vehicles, In the new developing cites there have the space available for roads or the intersections points. So, we found some new channelizing islands or the intersection roads but this is only for the cross way road minimum four and the maximum is also four intersection roads. The most important thing is that no use of traffic lights or the any man for control the traffic, the vehicles can move in all directions in one time, that's why this crossway intersection islands are provided, this need some amount of large area.

## II. DEVELOPMENT OF CHANNELIZING ISLANDS

## A. U-Turn ( Channel Island )

For going back there is no need to travel the whole rotary, a u-turn is provided for the quick action or smooth movements of vehicles.

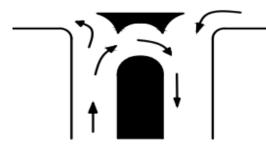


Fig.1 U-Turn and Free Hand

## B. Free hand ( Channel Island )

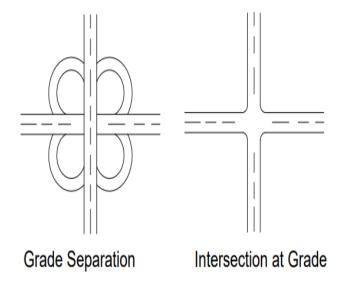
For take left there is no need to hold in traffic, here the main lane is allow vehicles for free moving at the left.

## C. Rectangle shaped rotary (Divisional Island)

In the center of this crossway road a rectangle shaped island provided for direct the vehicle in definite direction. Basically this can be available for vegetation that improving the resistance of pollution.

## III. INTERSECTION AT GRADE

Here all activities is done in a same grade means same level of ground, no use of grade separation means an over bridge or a flyover. This is much economical than the grade separation or an over bridge. This intersection road is design according to the vehicles density or capacity. If there is a large area available then grade at intersection is much better than grade separation.



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# IV. STUDY ON CONFLICT POINTS

## A. Crossway Intersection

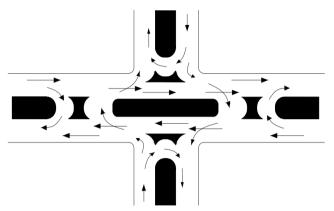


Fig.2 Conflict points of Crossway Intersection

#### V. CONCLUSION

The traffic channelizing islands have changed and grown as a result of this effort. The islands that channel traffic also help to reduce certain traffic, maintain road safety, and control the flow of traffic. The majority of current road projects involve modifying already-existing roads as well as their design, implementation, and upkeep. This is the creation of traffic channelizing islands in a modified manner to enable smooth vehicle passage.

#### References

- Alase et. al. "Traffic Island And Development". IJCRT, Vol 10, issue 5 May 2022, ISSN: 2320-2882
- [2] Potts, I.B., D.W. Harwood, D.J. Torbic, S.A. Hennum, C.B. Tiesler, J.D. Zegeer, J.F. Ringer, D.L. Harkey, and J.M. Barlow. Synthesis on Channelized Right Turns at Intersections on Urban and Suburban Arterials. NCHRP Project 3-72 Final Draft. Transportation Research Board of the National Academies, Washington, D.C., 2005
- [3] Gopal R Patil, Jayant P.Sangole. Behavior of two-wheelers at limited priority uncontrolled T-intersections, IATSS Research, 2016, 40:7-18.
- [4] A. Olma, "Analysis and calibration of factors for estimating the parameters of volumes intensity in urban areas", Publisher of the Silesian University of Technology, 2004.
- [5] Traffic Engineering Society. Translated by Liu Chunhua and Liu Zhen. Planning and Designing of Intersections. China Construction Industry Press, Beijing, 1988.
- [6] De Martino, D.; Dall'Asta, L.; Bianconi, G.; Marsili, M. Congestion Phenomena on Complex Network. // Physical Review E. 79, (2009), pp. 1-4.
- [7] Yu, B.; Kun, X.; Yang, X. The Analysis of Stop Line Arrangement for At-Grade Intersection, Proceedings of the 2008 International Conference on Intelligent Computation Technology and Automation (ICICTA), Changsha, 2008, pp. 521-528.
- [8] Takagi, T.; Taniguchi, M.; Fujiki, S.; Kamimura, S.; Suzuki, N. A Theoretical Approach to Analysis on the Downstream and Upstream Road Traffic Flow Rate of A Single Intersection. Proceedings of the 41st SICE Annual Conference /Osaka, 2002, pp. 2873-2878.

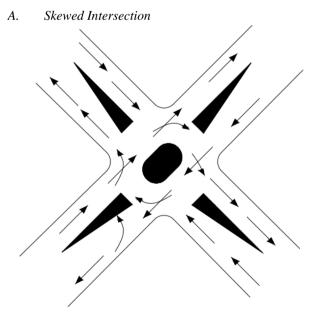


Fig.3 Conflict points of Skewed Intersection