Introduction of Circular Intersections (Roundabouts)

Traffic Regulation at Circular Intersections

The so-called roundabout, a planar intersection having a circular structure for vehicles to pass, in which the method of flow of traffic is one way in a circular form (hereafter referred to as "roundabout"), and which can be seen in many European and American countries, contributes to the safe and smooth flow of traffic under certain conditions. In Japan also there are a considerable number of similar intersections, however until recently this method of flow of traffic was not recognized by the Road Traffic Act.

As a result of this situation, the definition of Circular Intersections and this method of traffic flow have been defined by law (Act No. 43 of 2013) which amends a portion of the Road Traffic Act, which came into force on September 1, 2014.

A Circular Intersections is a roundabout at which the road sign shown in Fig. 1 is installed, vehicles should go clockwise around the central traffic island in a "Circular Intersection", and the traffic in the circular area takes priority over the traffic flowing in from the outside.

The National Police Agency and prefectural police inform the citizens about the method of driving on Circular Intersections using publicity posters, etc.

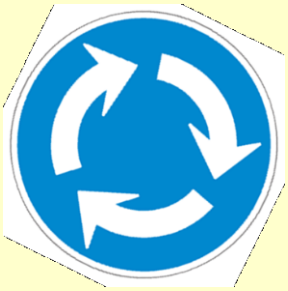


Fig. 1 Traffic regulations sign "Should go clockwise on the Circular Intersections (327 / 10)"

Fig. 2 Publicity poster for Circular Intersections

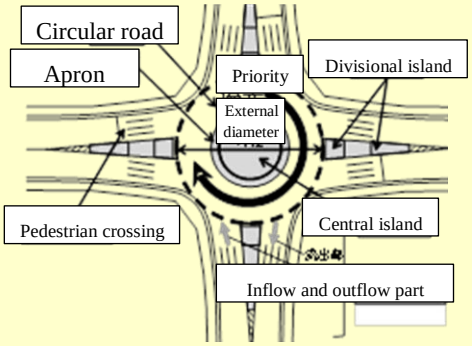
By regulating traffic in this way on Circular Intersections that satisfy certain conditions, it is expected that traffic accidents will be reduced, damage will be reduced, waiting time at crossroads will be reduced, and the response capability during disasters will be increased, etc. By the end of March 2015 traffic regulation at Circular Intersections has been introduced at 43 locations in 14 prefectures. According to prefectural police, traffic regulation at Circular Intersections will be further introduced at suitable locations where the effect can be exhibited, in cooperation with road administrators.

Desirable Structure of Roundabouts

In order that roundabouts can exhibit their expected effect and contribute to safe and smooth road traffic, the Ministry of Land, Infrastructure, Transport and Tourism has advised road administrators throughout the country of the desirable structure of roundabouts in August 2014, prior to the commencement of designation of Circular Intersections (roundabouts) by the prefectural Public Safety Commissions. In this advice, the applicable conditions and the points to note have been summarized based on literature surveys both within Japan and abroad, social experiments carried out at several locations throughout the country, and the discussions at the "Roundabout Study Committee" consisting of influential persons, etc.

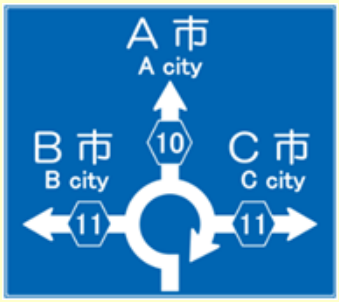
Planar intersection structure of roundabout
(Towacho Roundabout, Iida City, Nagano Prefecture)

The planar intersection of a roundabout consists of a circular road, a central island, an apron, the road shoulder, divisional islands, inflow and outflow parts, and traffic safety facilities. The circular road is the road on which the vehicles can travel in a clockwise direction. On the inside of the circular road is an apron, on which semi-trailers, etc. can travel as it is difficult for them to travel on the circular road only. The divisional islands are provided to separate the vehicles flowing onto the circular road and flowing off the circular road, and to ensure the safety of pedestrians crossing the road.



Standard roundabout drawing

The applicable conditions for exhibiting the expected effect of roundabouts are the traffic volume and the external diameter. The traffic volume is less than a total of 10,000 vehicles per day at the intersection (if the traffic volume exceeds 10,000 vehicles per day a separate study is required), and the external diameter is the diameter to enable the vehicles on the road to turn left and travel around, etc. The points to note are the geometrical structure such as the shape, road width, etc., and traffic safety facilities such as lighting, information signs, etc.



Information sign
Example of "direction and turning (108 / 2-A)

[Information on the topic is available on the website of the government]

A video on the how to travel on Circular Intersections is available on:
http://www.npa.go.jp/koutsuu/index.htm# aze_seibi

Information on Roundabout Study Committee is available on:
http://www.mlit.go.jp/road/ir/ir-council/roundabout/index.html

Information on the desirable structure of roundabouts is available on:
http://www.mlit.go.jp/road/sign/kijyun/pdf/20140901tuuti.pdf

Traffic Safety Measures for the Elderly

The police are working to ensure the safety of elderly pedestrians and bicycle users by the promotion of measures on community roads such as “Zone 30”, the provision of barrier-free traffic lights, providing a bicycle traffic environment, etc. Also, the development of a traffic environment in which elderly drivers can safely and securely drive vehicles is being promoted with intensely illuminated roadway signs, large LED signal lights, the operation of a system of parking or stopping in special areas for senior drivers, etc. In addition, based on the increasing importance of public transport as a means of transport for the elderly, initiatives are being undertaken to revitalize and regenerate local public transport, in cooperation with the relevant organizations and groups, etc. (Section 1-2, Chapter 2, Part 1, Title 1).

In classes and training courses for elderly drivers at the time of the renewal of their driving licenses, seminars are provided to elderly drivers in accordance with their driving characteristics and the characteristics of traffic accidents (Section 3-2, Chapter 2, Part 1, Title 1).

In addition, individual classes focused on the elderly who have not had the opportunities to receive traffic safety education are provided by visiting their homes in cooperation with relevant organizations, and traffic safety education based on participation, hands-on experience and practice is actively promoted to the elderly people (Section 2-1, Chapter 2, Part 1, Title 1).

(Examples)

The Ibaraki Prefectural Police holds “Silver Cycling and Pedestrian Seminars”, which are participatory, hands-on experiential, and practical road safety courses for the elderly. Road safety training is held for the elderly on the courses within driving schools by the “feedback method”, in which videos are taken to record how the elderly cross the road at crossroads with poor visibility. The videos are viewed and checked during the course, and specific problem points are identified followed by explanation and instruction on safe behavior from instructors or police.

Training courses by the “feedback method”

Status of Implementation of Locally-proposed Traffic Safety Support Projects

The Cabinet Office holds “Locally-proposed traffic safety support projects” proposed by local public organizations to implement road safety measure projects considered to be necessary in that locality.

In fiscal year 2014 training was held at the following locations to prevent traffic accidents involving elderly drivers, such as hazard anticipation training and basic driving instruction, etc.

- Hiroshima City, Hiroshima Prefecture: Kabe Driving School

Training regarding vehicle dead angles

Practical training on how to drive in crossroads with a poor view

- Makurazaki City, Kagoshima City: Nankai Driving School

Training to anticipate hazards at crossroads with traffic lights

Self-diagnosis of bodily function by the elderly