Roundabout

Roundabouts are a form of intersection control designed to eliminate left turns by requiring traffic to exit to the right of the circle. Roundabouts are installed to reduce vehicle speed, improve safety at intersections by eliminating broadside collisions, and help traffic flow more efficiently and reduction in operational costs that come with a signalized intersection.

Typical Use

Roundabouts can be used at intersections experiencing high-crashes, traffic delays, or intersection with a complex geometry and frequent left turns. A roundabout is often used as a replacement for a signalized intersection along arterial street.

Design Features

- Roundabouts should be designed for a maximum entry design speed of 20 mph for a single lane roundabout.
- If bike lanes are used in the roundabout, additional right-of way may be necessary.
- Typical mountable diameter for a single-lane roundabout is 90-180 feet and 150-300 feet for a multilane roundabout.

Further Considerations

Advantages
- Roundabouts can reduce crash severity for all users, allow for safer merges into circulating traffic, and provide more time for all users to detect and correct their mistakes or mistakes of others due to the lower vehicle speeds.
- Fewer conflict points and eliminates left-turn conflicts.
- May have lower delays and queues than other forms of intersection control.

Disadvantages
- Can create confusion and present additional challenges for bicycle and pedestrian safety and overall comfort.
- Driveways closely spaced near the roundabout may have left turn restrictions (right in/right out access only) due to location of splitter islands.
- Equal priority for all approaches can reduce the progression for high volume approaches.
- Expensive to construct.

Materials & Maintenance

Roundabouts typically require less maintenance and less cost over their lifespan when compared to traffic signals. Signage and pavement markings shall be designed per local standards. Roundabouts may require landscape maintenance if landscaping is provided.