

Focus On...

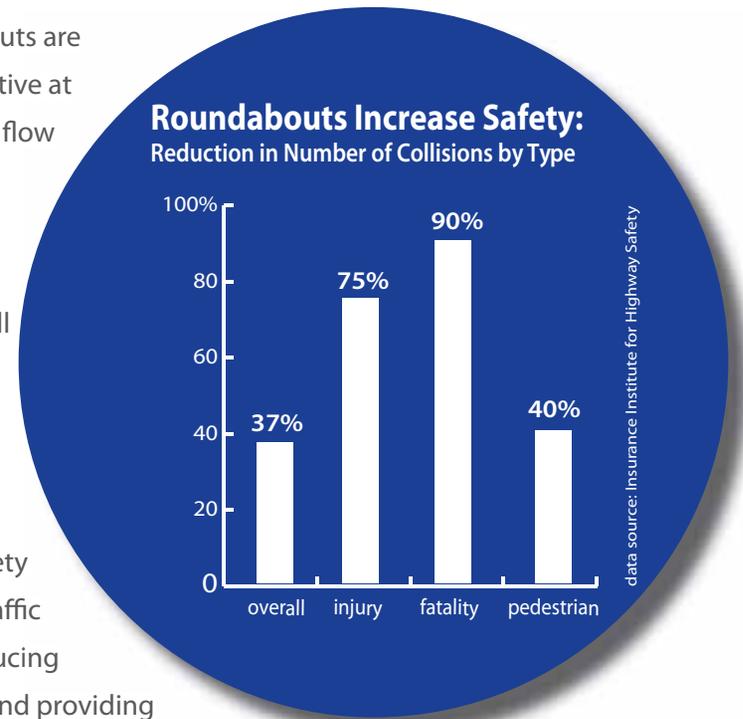
THE MODERN ROUNDABOUT

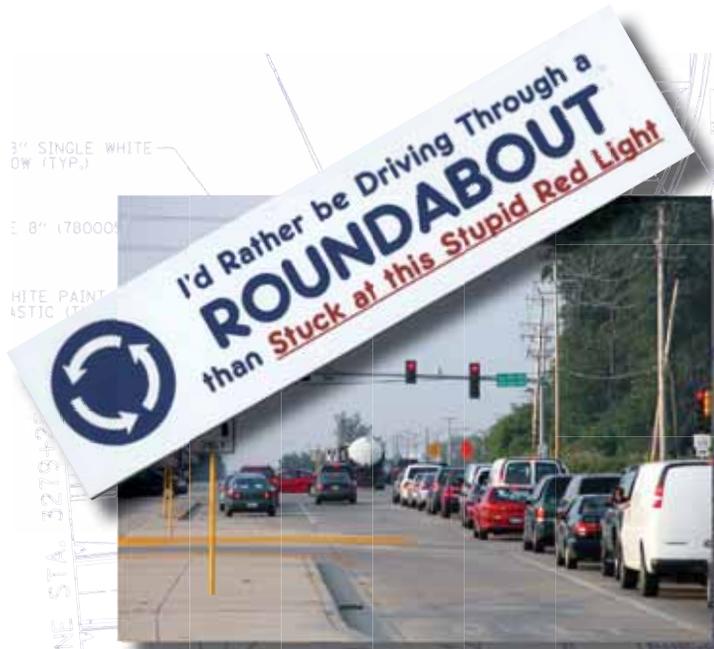
is just one type of circular intersection. The term “modern roundabout” is used here to distinguish them from older and often large diameter traffic circles, rotaries or very small traffic calming circles used on residential streets.

By the mid 1950s, traffic circles had fallen from favor here in the U.S. as traffic volumes pushed their usefulness beyond operational capacity. The fundamental difference between modern roundabouts and older traffic circles is in design philosophy—modern roundabouts control and maintain low speeds for entering and circulating traffic, accomplished by small diameters and low-speed entry geometry. Compared to signalized intersections, studies by the Insurance Institute for Highway Safety show that roundabouts typically reduce overall delay and congestion, increase capacity, and improve safety. In fact, the studies reflected that signalized intersections that were converted to roundabouts experienced 75 percent fewer injury crashes, 90 percent fewer fatal crashes, and fewer crashes overall—and roundabouts virtually eliminate intersection head-on and right angle crashes.

During a project’s design phase, the roundabout is considered along with other design strategies for a variety of intersection

types. Roundabouts are particularly effective at improving traffic flow at intersections where there is a high volume of left turns, and will process a wide range of side road volumes. Roundabouts also improve safety by simplifying traffic movements, reducing vehicle speeds, and providing a clearer indication of the driver’s right of way. Critical to the acceptance of the roundabout intersection concept is overcoming public skepticism of its advantages and value.





When is a roundabout design considered?

- At intersections with a high crash rate or a higher severity of crashes.
- Where aesthetics are an objective.
- When transitioning from rural to urban.
- At standalone locations with high peak period demand.
- At high-speed rural intersections.
- At intersections with high turning volumes.
- At closely spaced intersections where signal progression cannot be achieved.
- To replace a 4-way stop.

adapted from WisDOT Facilities Development Manual

Lake County opened its first roundabout to traffic in the fall of 2010 at what had been a four-way stop intersection at Everett and Riverwoods Roads in Lincolnshire. A camera feed from the intersection showing traffic movement through the roundabout is coming soon to the Lake County *PASSAGE* website.

