

There are three basic categories of roundabouts based on size and number of lanes: mini-roundabouts, single-lane roundabouts and multi-lane roundabouts.

Mini-Roundabouts

Mini-Roundabouts are applicable in urban* environments with speeds less than or equal to 30 mph. They adapt to existing boundaries by providing a fully traversable central island, a mini-roundabout can be a low-cost solution for improving intersection capacity and safety without the need for acquiring additional right of way. The suitability of a mini-roundabout depends on:

- 1) Traffic Volumes (comparable ADT from each approach roadway)
- 2) Truck Volumes \leq 5%
- 3) Frequency of School Bus use

Mini-Roundabouts should meet the following geometric design criteria:

- 1) Central island of 25 to 50 feet, which is fully mountable
- 2) Central island curb height is less than 2 inches high and is often flush and painted
- 3) Central island cross slope of 12:1 maximum
- 4) Circular roadway width of 12 feet (may be wider for intersections with acute angles)
- 5) Approach lanes 10 to 11 feet (to reduce speeds)

Mini-Roundabouts are designed with painted “splitter islands” in each quadrant to guide traffic. The majority of traffic (usually estimated at 97%) should be able to pass through the mini-roundabout while staying within the circular roadway. The traversable central island and splitter islands allow larger vehicles to pass through. Mini-Roundabouts can conservatively handle 1,600 VPD (all approaches) while providing an adequate level of service.

Sources: [ITE Journal](#), November 2012, Article by Lochrane, Zhang and Bared;
[Public Roads Magazine](#), Nov./Dec. 2012, “They’re Small But Powerful” at:
[NCHRP Report 672, Roundabouts: An Informational Guide](#), Second Edition,
 Chapter 6, Section 6.6

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