Mini-Roundabouts*

Mini-Roundabouts are applicable to low-speed environments ≤ 35 miles per hour. Because 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:

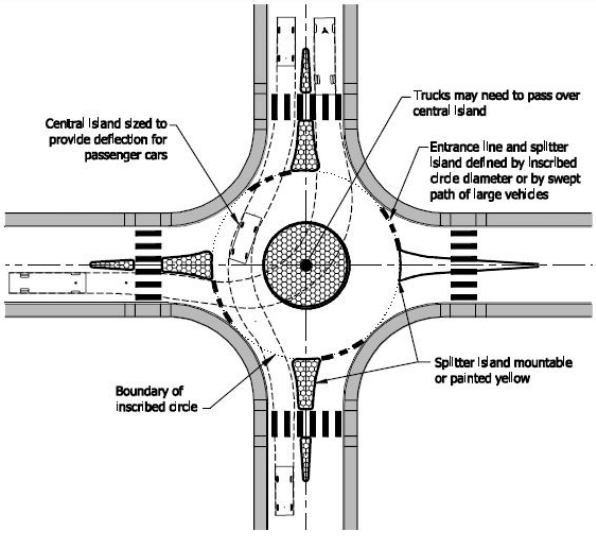
1) Traffic Volumes (comparable ADT from each approach roadway)
2) Truck Volumes ≤ 5%
3) Frequency of School Bus

Mini-Roundabouts should meet the following geometric design criteria:

1) Central island of 25 to 50 feet
2) Circular roadway width of 12 feet
   (may be wider for intersections with acute angles)
3) Central island curb height < 2 inches
4) Central island cross slope of 12:1 maximum
5) Approach lanes 10 to 11 feet (to reduce speeds)

Mini-Roundabouts are designed with a 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 2013, 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



* Added 1/14