

When the analysis shows that a roundabout is a feasible alternative, it is considered the Department's preferred alternative due to the proven substantial safety and operational benefits.

Roundabouts should not be considered as a feasible alternative when the following criteria exist:

- Where adequate horizontal and/or vertical approach sight distances cannot be met,
- When there are signalized intersections close to the proposed roundabout,
- Where high volume entrances are in close proximity (within 100') to the outer edge of the inscribed diameter,
- Where left turns are not the predominant turning movement, and
- When deemed unsuitable due to other engineering factors by the District or Central Office Roundabout Review Committee.

If a Roundabout simulation video is being shown at Public Hearing, VISSIM software is to be used\*.

Roundabouts are circular intersections with specific design and traffic control features. These include yield control of all entering traffic (circulating vehicles have the right-of-way), channelized approaches, and geometric curvature to ensure that travel speeds are typically less than 30 mph (single-lane 20-25 mph; two-lane 25-30 mph).

Roundabouts are generally safer than other types of intersections for low and medium traffic conditions. These safety benefits are achieved by eliminating vehicle crossing movements through the conversion of all movements to right turns and by requiring lower speeds as motorists proceed into and through the roundabout. The potential for right angle and left turn head-on crashes is eliminated with single lane roundabouts. Roundabouts treat all vehicle movements equally, each approach is required to yield to circulating traffic. Roundabouts typically handle higher volumes with lower vehicle delays (queue) than traditional intersections at capacity.

While roundabouts usually require more right-of-way at an intersection compared to a traffic signal, they require less right-of-way on the upstream approaches and downstream exits. At new intersection sites that will require turn lanes, a roundabout can be a less expensive intersection alternative. Operating and maintenance costs are less than signalized intersections since there is no signal equipment. The roundabout has aesthetic advantages over other intersection types particularly when the central island is landscaped.

\* Rev. 7/15