

A Guide To Modern Roundabouts



Benefits of a Roundabout

Saves lives

- Up to a 90% reduction in fatalities
- 76% reduction in injury crashes
- 30-40% reduction in pedestrian crashes
- 75% fewer conflict points than four-way intersections

Slower vehicle speeds (generally under 25 mph)

- Motorists have more time to judge and react to other cars or pedestrians
- Advantageous to older and novice motorists
- Reduces the severity of crashes
- Keeps pedestrians safer

Efficient traffic flow

• 30-50% increase in traffic capacity

Reduction in pollution and fuel use

- Improved traffic flow for intersections that handle a high number of left turns
- Reduced need for storage lanes

Potential money saved

- No signal equipment to install and repair
- Savings estimated at an average of \$5,000 per year in electricity and maintenance costs
- Service life of a roundabout is 25 years (vs. the 10-year service life of signal equipment)

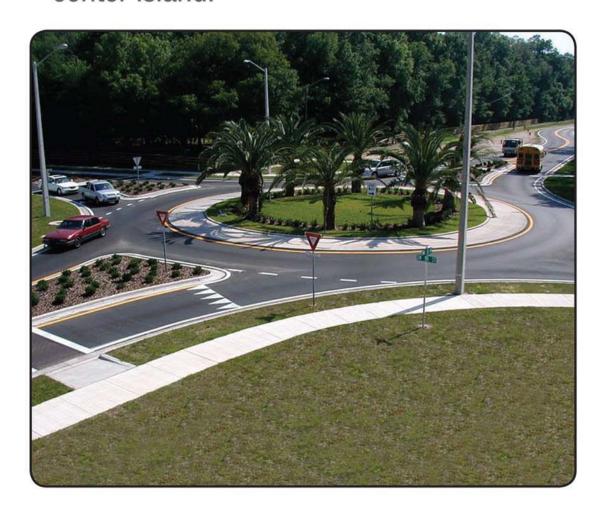
Community benefits

- Traffic calming
- Aesthetic landscaping

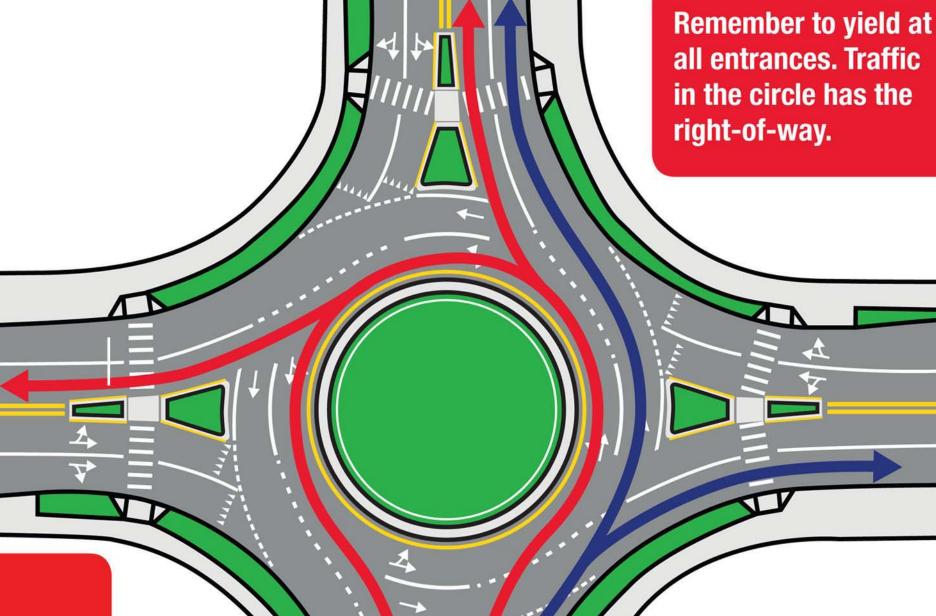
Source: Federal Highway Administration

What is a Roundabout?

A roundabout is a circular intersection without traffic signal equipment in which traffic flows around a center island.



Navigating a Modern Roundabout



Why Modern Roundabouts?

In Florida, over 44% of all traffic fatalities and serious injuries occur at conventional (stop & signal-controlled) intersections. Roundabouts have been proven to reduce the number of fatal and severe injury crashes by 82% over a stop-controlled intersection, and 78% over a signalized intersection.

Conventional intersections have 32 vehicle and 16 pedestrian conflict points, while roundabouts have only 8 vehicle and 8 pedestrian conflict points. Because there are no crossing movements in a roundabout, left-turn and right-angle crashes are eliminated.

- 1. Slow to 10-15 mph on approach to a roundabout
- 2. In multi-lane roundabouts, follow signs and markings to determine the lane(s) that will serve your destination
- 3. Yield right-of-way to bicyclists merging into the entry lane before the bike lane ends
- 4. Yield right-of-way to pedestrians crossing the entry lane

5. Yield right-of-way to motorists already in the circulatory roadway when it is safe to do so

Bike Lane Ends Here

Bicyclists have two options:

I. Merge with traffic and

circulate as a vehicle

2. Mount the sidewalk

and use crosswalks

- 6. Turn right onto the circulatory roadway when it is safe to do so
- 7. When you approach your destination street, use your right-turn signal and exit the roundabout
- 8. Yield right-of-way to pedestrians crossing the exit lane

Roundabout User Tips



Motorists

- Determine which way you want to go in advance of the roundabout
- Keep right at the splitter island and slow to 10-15 mph
- Watch for bicyclists and allow them to merge into the entry lane
- Watch for pedestrians crossing the entry roadway and yield right-of-way

- Yield right-of-way to vehicles within the circulatory roadway
- Turn right onto the circulatory roadway when it is safe to do so
- When you approach your street, use your right-turn signal and exit the roundabout
- Watch for pedestrians crossing the exit roadway and yield right-of-way



Pedestrians

- Stay on the walkways and cross at designated crosswalks
- Do not enter the central island
- Watch for motorists and bicyclists
- Cross to the splitter island and stop there if traffic requires



Bicyclists

- Merge with traffic on the entry lane or use the ramp to the sidewalk
- If riding with traffic, signal your intended path
- If using the sidewalks, yield right-of-way to pedestrians and walk your bicycle at crosswalks

All roundabouts have these features:

Yield-at-entry

Traffic entering the circle yields to traffic already in the circle.

Traffic deflection

 Pavement markings and raised islands direct traffic into a one-way counterclockwise flow.

Geometric curvature

 The radius of the circular road and the angles of entry can be designed to slow the speed of vehicles.

US 92 (International Speedway Boulevard) Corridor Master Management Plan