

Why a Roundabout?



Safety

Roundabouts offer improved safety over other types of intersections because roundabouts have fewer conflict points, slower speeds, and easier decision making.

When compared to a signal, studies show that roundabouts provide:

- 90% reduction in fatal crashes,
- 75% reduction in injury crashes,
- 30-40% reduction in pedestrian crashes, and
- 10% reduction in bicycle crashes

Roundabouts improve pedestrian safety by offering two simple crossings of one-way traffic that is moving at much slower speeds. (typically less than 15-20 mph)

Capacity

Roundabouts typically carry about 30% more vehicles than similarly sized signalized intersections during peak flow conditions. During off-peak conditions, roundabouts cause almost no delay, but traffic signals can cause delay to side street and left-turning traffic from the major street. Increased capacity at roundabouts is due to the continuously flowing nature of yielding only until a gap is available, versus waiting for your turn at a signal.

Operation

Roundabout operation is simple. They are easy to drive, just yield, look left and turn right. And remember once in the roundabout you have the right-of-way.

Roundabouts

...less congestion,
less frustration,
less pollution,
less expense,
fewer and less severe traffic collisions,
fewer pedestrian and driver injuries...

For more information contact:

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SINGLE-LANE ROUNDABOUT

Information for Motorists, Bicyclists and Pedestrians



Driving Safely Through a Single Lane Roundabout

Approaching and Entering



- **Slow down** when approaching. Roundabouts are designed for speeds of 15-20 mph.



- Yield before you enter. Remember to be prepared to stop. **Circulating traffic has the right-of-way**. Look to the left for traffic in the roundabout. Wait for a gap in traffic and enter the roundabout.



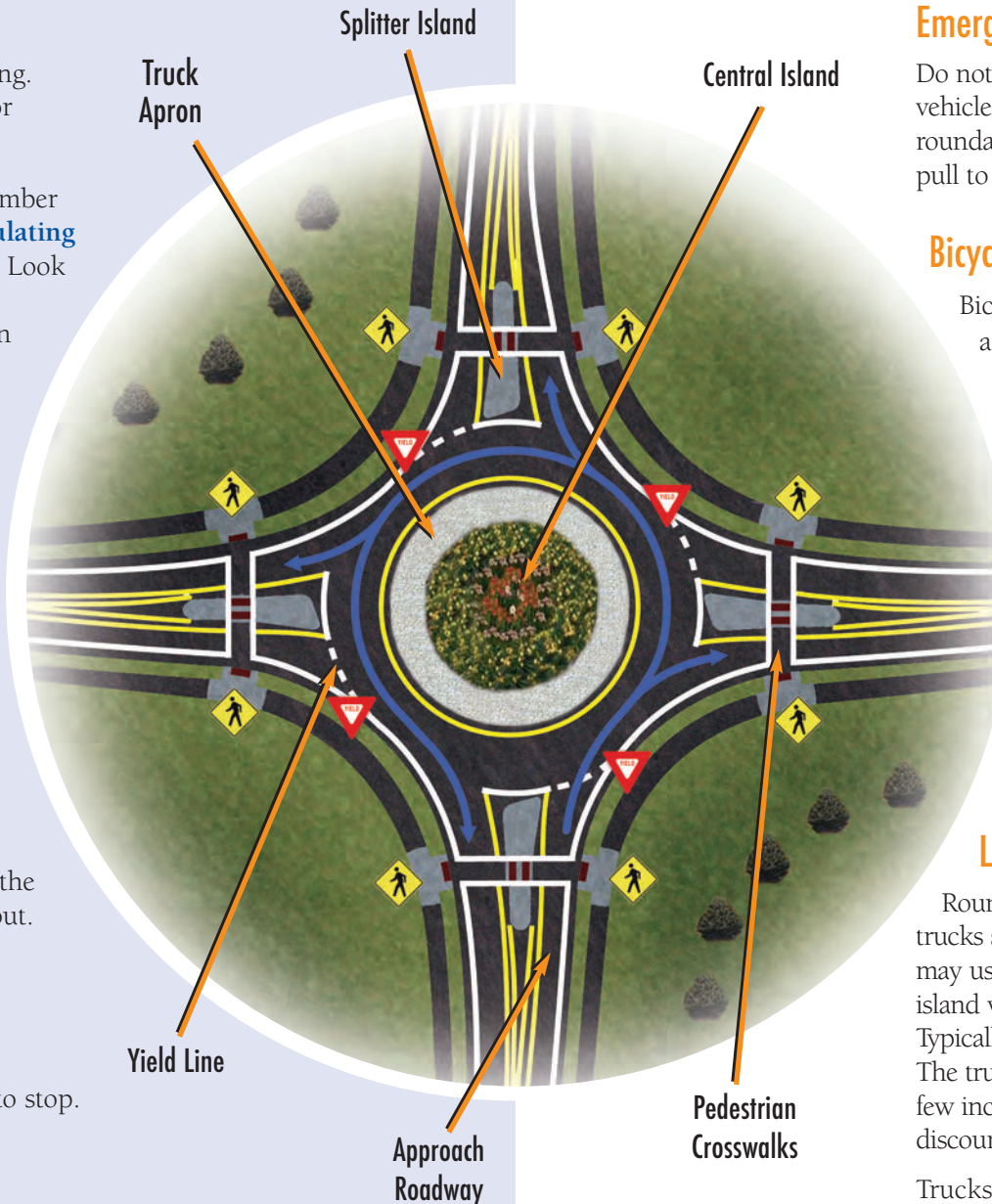
- Enter, once in the roundabout, do not stop. Do not overtake vehicles slightly ahead of you, as they may be exiting.



- Stop for pedestrians as you approach and enter.

Exiting the Roundabout

- Once you have entered, proceed counterclockwise to your exit point. **You** have the right-of-way in the roundabout.
- As you approach your exit, use your **right turn signal**.
- Watch for pedestrians in the crosswalks and be prepared to stop.
- Exit the roundabout.



Emergency Vehicles

Do not enter the roundabout when emergency vehicles are approaching - pull to the side. If in the roundabout, immediately exit the roundabout and pull to the side. **Never stop in the roundabout.**

Bicyclists

Bicyclists have the option to function as a vehicle or pedestrian when using a roundabout. When acting as a vehicle, they will follow the same rules as motorists. **Vehicles should never overtake a bicyclist acting as a vehicle in the roundabout.**

Pedestrians

Motorists must yield to pedestrians when entering and exiting a roundabout. Pedestrians will utilize crosswalks and splitter islands to cross each leg of the roundabout.

Large Trucks

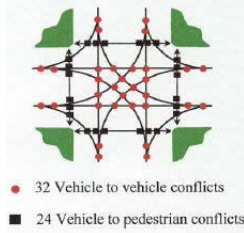
Roundabouts are designed to accommodate fire trucks and large tractor trailer vehicles. Large trucks may use the raised truck apron around the central island while going through the roundabout. Typically the trailer rides up onto the truck apron. The truck apron, with its rough surface is raised a few inches higher than the driving pavement to discourage cars from using it.

Trucks should follow the same rules for entering and exiting as other motorists.

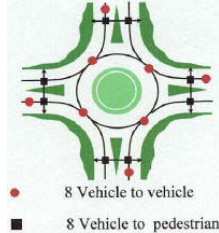
ROUNDBABOUT INFORMATION

WHAT ARE THE BENEFITS OF A ROUNDBABOUT ??

Possible Conflict Points: Roundabout vs. 4 Way Intersection



4 -Way Intersection



Roundabout

Safety – There are fewer conflict points where vehicles can get into an accident in a roundabout as opposed to a 4-way intersection. This combined with the slower speed of vehicles in a roundabout make them very safe.

SAFETY BENEFITS OF ROUNDBABOUTS VS. OTHER TYPES OF INTERSECTIONS

- 90% Fewer Fatalities**
- 75% Fewer Injury Accidents**
- 35% Fewer Accidents**
- 35% Fewer Pedestrian Accidents**
- 10% Fewer Bicycle Accidents**

Ref.: FHWA Study



Capacity – Because of the free flow nature of a roundabout, the slower speeds and closer vehicles tend to travel through roundabouts, more vehicles can go through a roundabout. Studies show that a roundabout can process about 30% more traffic than other types of intersections.



Less pollution – Because vehicles are moving slowly and not stopping and starting like at other types of intersections vehicles will use less gas and emit less pollution into the environment.



Aesthetics – The central island of the roundabout provides a location where landscaping can be placed. This landscaping can beautify the area and provide a gateway treatment to the community



U-Turns – Roundabouts provide access to all approaches and also make U-Turns easy and convenient. All vehicles, including tractor trailers can make U-Turns at a roundabout.

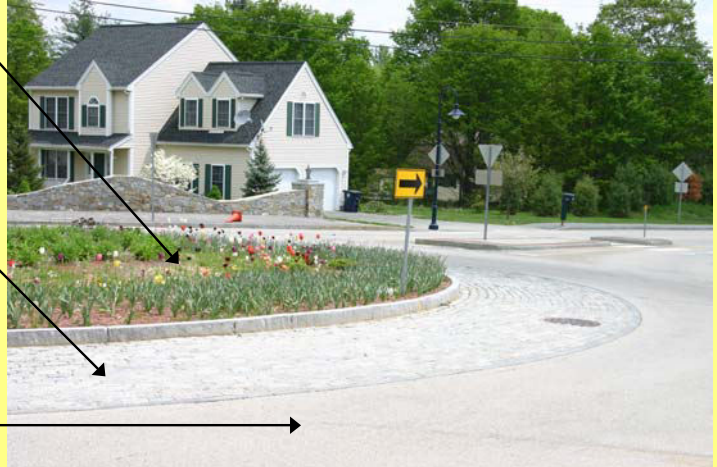
ROUNABOUT INFORMATION

ROUNABOUT FEATURES

Center Island – The center island is typically landscaped and separated from the road by a curb. No vehicles should travel in or over the center island.

Truck Apron – As its name implies trucks, or other large vehicles, will use this area to traverse the roundabout. It is usually made of a material other than asphalt and is textured so cars do not use it. In this picture the truck apron is made of cobbles, as are most NHDOT designed roundabouts. The truck apron may also be raised slightly, usually 1-3" to further inhibit passenger car usage.

Circulating Roadway – This is the paved portion of the roundabout where vehicles travel. The narrow width, tight radius and narrow entry and exit widths all combine to keep speeds low but still allow all types of vehicles to pass through the roundabout. The typical slow speeds of a roundabout add to making them very safe.



Yield at Entry – All vehicles approaching a roundabout must yield to those vehicles in the roundabout. So each approach into the roundabout will have a yield sign and a yield bar on the pavement.

Splitter Island – This raised island separates the entering and exiting traffic of the roundabout. It also aligns vehicles in the correct direction when entering the roundabout to ensure vehicles travel through the roundabout in a counter-clockwise direction. They also help in creating a narrower opening into the roundabout and help slow traffic prior to entering the roundabout. The splitter island also acts as a refuge for pedestrians crossing the road.

Crosswalk – Each approach to the roundabout will have a crosswalk. Since a pedestrian only has to cross one lane of travel at a time this is easier and safer than most types of road crossings.

When Driving Through a Roundabout Drivers Should:

Slow Down – Travel through a roundabout is limited to 15-20 mph

Yield to any pedestrians in the crosswalk.

Yield before entering to any vehicle in the roundabout.

Wait for a gap in traffic, then enter the roundabout.

Travel in a counter-clockwise direction until you reach your exit.

When exiting yield to any pedestrians in the crosswalk.



ROUNDAABOUT INFORMATION

HOW DO BICYCLISTS AND PEDESTRIANS GET THROUGH A ROUNDAABOUT??

Bicyclists have a choice when they are approaching a roundabout. They can “claim a lane” and travel through the roundabout as a vehicle. Or they can use the sidewalk ramp located at each approach to the roundabout, then they can go through the roundabout using the sidewalks and crosswalks as a pedestrian.



These bicyclists have “claimed a lane” and entered the roundabout as a vehicle. Because of the slower vehicle speeds in a roundabout bicyclists can easily match vehicle speeds through the roundabout



For those bicyclists that are inexperienced or uncomfortable traveling through the roundabout as a vehicle, sidewalk ramps are provided at each approach. Bicyclists simply use the ramps to gain access to the sidewalks and then proceed through the roundabout as a pedestrian, once through the roundabout they can continue riding in the shoulder.



Pedestrians are provided sidewalks around the roundabout and crosswalks at all approaches to the roundabout. The crosswalks are placed so only one lane of travel has to be crossed at a time, with the splitter island acting as a refuge.



The splitter islands offer a refuge for pedestrians so they only have to cross one lane at a time.



State law requires all vehicles to yield to pedestrians in a crosswalk, but pedestrians should always use caution when using crosswalks.

ROUNDBOUT INFORMATION



Size – Roundabouts are much smaller than a Traffic Circle. This smaller size makes them safer, slower and more efficient.



Speed – Because of the smaller circle size in a roundabout, travel speeds are reduced to 15-20 mph. This results in a safer intersection that provides a higher capacity than a traffic circle.



Property Impacts – Because of the smaller size roundabouts usually require less impact to private property than a traffic circle.

WHAT'S THE
DIFFERENCE BETWEEN
A ROUNDBOUT AND A
TRAFFIC CIRCLE??



Yield at Entry – Traffic entering a roundabout must yield to traffic already in the roundabout. Many traffic circles do not follow this rule.



Narrow Lanes – Narrow entry, exit and circulating lanes control vehicle speeds and creates a more uniform speed through the roundabout.

Difference in Size Between Roundabouts vs. Traffic Circles.			
Roundabouts in NH		Traffic Circles in NH	
Location	Diameter (feet)	Location	Diameter (feet)
Pembroke	110	Lee Circle	250
Nashua	120	Massabesic Circle	260
Nashua	130	Epsom Circle	300
Plymouth	110	Portsmouth Circle	500
Meredith	130	Plymouth Circle	300' per side
Rye	104		