

Roundabouts: How to Educate, Enforce and Report

**Governor's Conference on Highway Safety
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**WisDOT
August 8, 2013**



Wisconsin Roundabouts

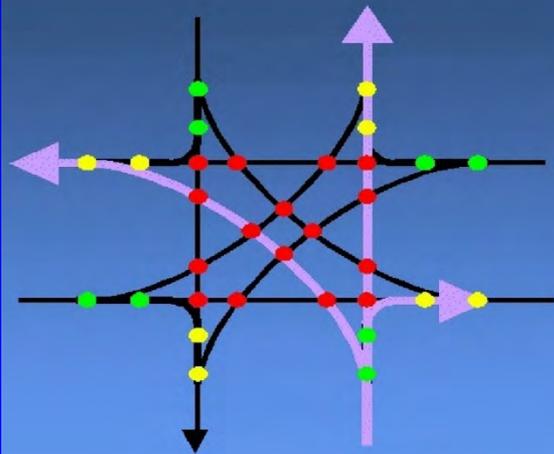
- 193 on the State System –
- 75 on local system



Why roundabouts ?

- Fewer conflicts points
- Lower speed
- Low severity crash

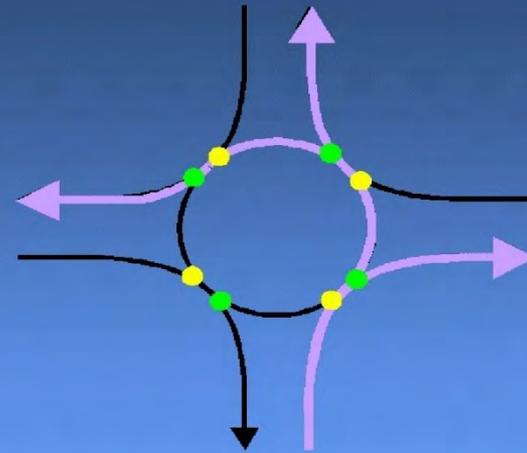
Vehicle conflict points: Conventional intersection



Conflict Types

● Diverge:	8
● Merge:	8
● Crossing:	16
Total:	32

Vehicle conflict points: Roundabout



Conflict Types

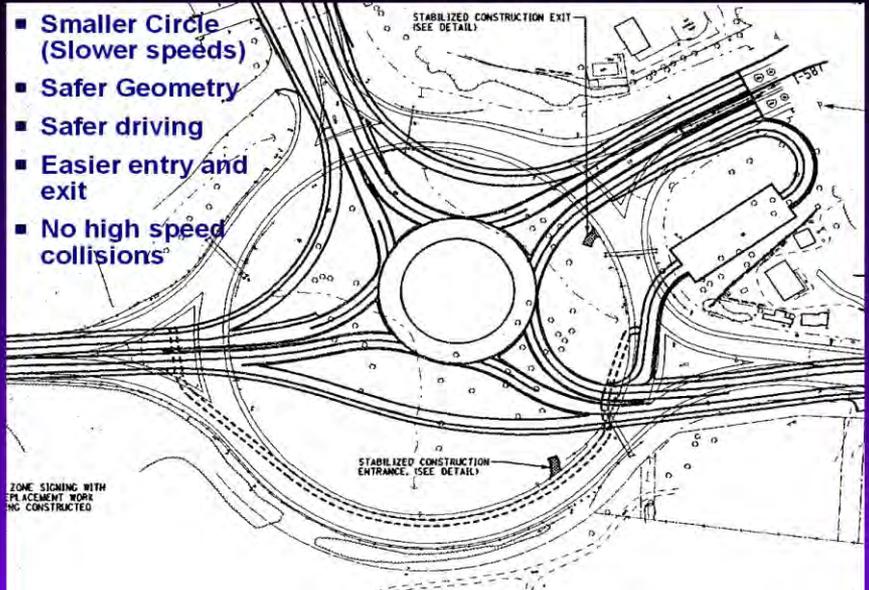
● Diverge:	4
● Merge:	4
● Crossing:	0
Total:	8

Introduction

● What IS - and what IS NOT - a roundabout?



Roundabout vs Traffic Circle

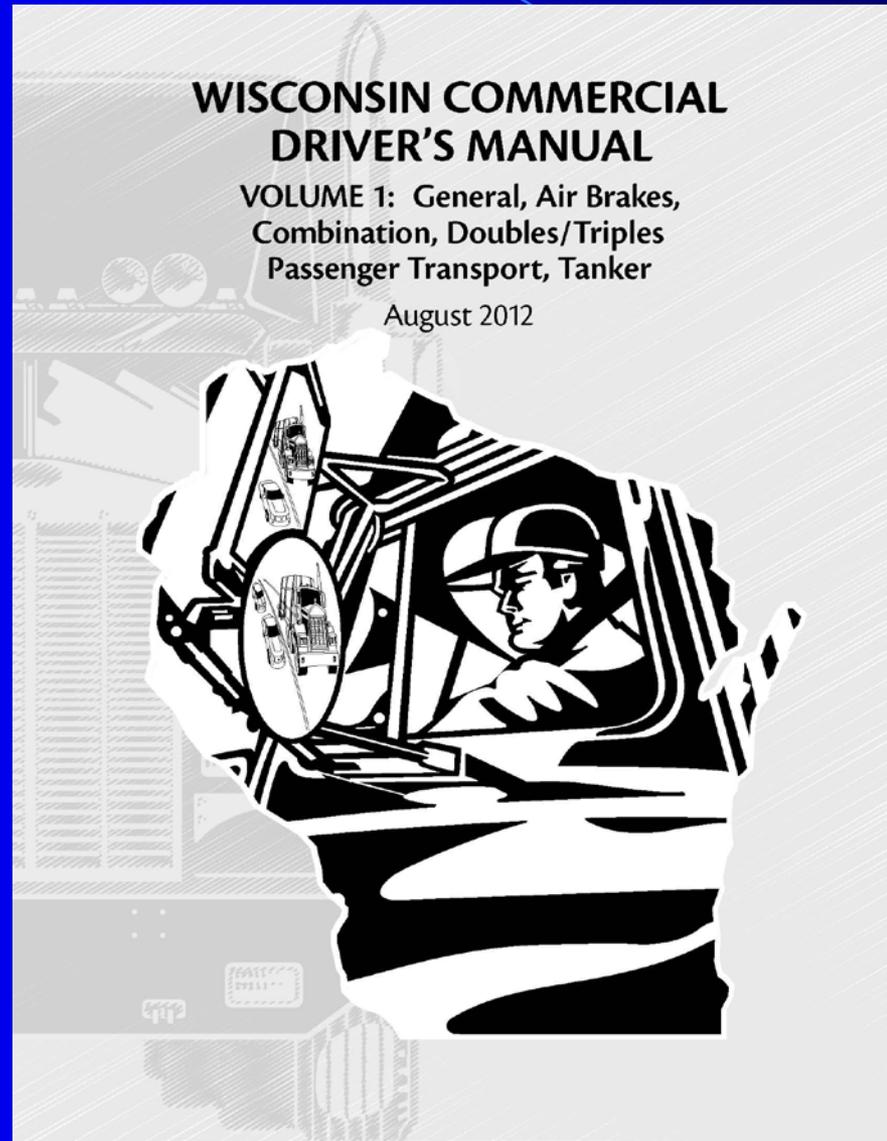


Rotary converted to a roundabout

Ulster, New York



Driving roundabouts - Trucks - CDL Manual -



Driving roundabouts

Wis. Motorist's Handbook

Lane choice is critical at roundabouts

Crosswalk:
Yield to pedestrians

Maple Avenue

Oak Street

Bicycles
Bicyclists can continue
» through the roundabout taking the travel lane, or
» may exit the roadway and use the crosswalk.

Pedestrians
» Pedestrians at the curb side look left for oncoming traffic before crossing
» Pedestrians within the crosswalk island area look right for oncoming traffic before crossing.

Left turns/u-turns:
use left lane

Going straight:
follow the pavement markings, arrows or signs

Right turns:
use right lane

Traffic circulates counterclockwise in a roundabout

Choose your lane and yield to all traffic in both lanes before entering roundabout!

Black and white signs:
» at the side of the road

- » Right lane is for right turns only.
- » Left lane is for left turns, u-turns, or through traffic only.
- » Right lane is for right turns or through traffic only.
- » Left lane is for left turns, u-turns, or through traffic only.
- » Right lane is for right turns or through traffic.
- » Left lane is for left turns or u-turns only.

Roundabout w/Spiral

(Dodgeville, STH 18/Bennett Rd)



Common Roundabout Crashes

- 1) Yield to all lanes
- 2) Choose correct lane

How to Drive Through a Roundabout

ALWAYS YIELD TO ALL CIRCULATING TRAFFIC

The infographic features a top photograph of a roundabout with a red car and a van. Below it is a large diagram of a roundabout with various colored cars (red, yellow, green) and callout boxes explaining driving rules and a crash scenario. A key identifies the colors: red for 'Stopped/At Fault', yellow for 'Yielding', and green for 'Circulating'. A 'YIELD' sign is also shown.

KEY

- Stopped/At Fault
- Yielding
- Circulating

YIELD
The "Golden Rule" of roundabouts.

Drivers entering a roundabout must yield to circulating traffic, pedestrians and bicyclists.

Drivers in the circle have the right of way. A motorist approaching a roundabout should wait for a safe gap in traffic before entering.

Drivers enter only when there is a safe gap in traffic.

Circulating traffic has the right of way. Continue to your exit and do not stop within the roundabout.

Drivers must yield to pedestrians and bicyclists using the crosswalks.

Drivers must yield to all traffic coming from the left.

The entering driver (red) is at fault due to failure to yield to the circulating vehicle (green). The driver in the inside lane of the roundabout can either exit or continue circulating. Entering vehicles must yield to all traffic coming from the left.



WISCONSIN DEPARTMENT OF TRANSPORTATION
U.S. Department of Transportation
Federal Highway Administration

Common Crash Video clip

Public attitude toward roundabouts before & after construction

<u>Attitude</u>	<u>Drivers in-favor</u>
● Before construction	22 - 44%
● Soon after construction	48 - 67%
● 1 year after construction	57 - 87%
● Higher support for younger drivers than over 65	
● Opinions of male and female drivers are similar	

Source: Insurance Institute for Highway Safety – Nov 2006

Different Entry Design



Case 1

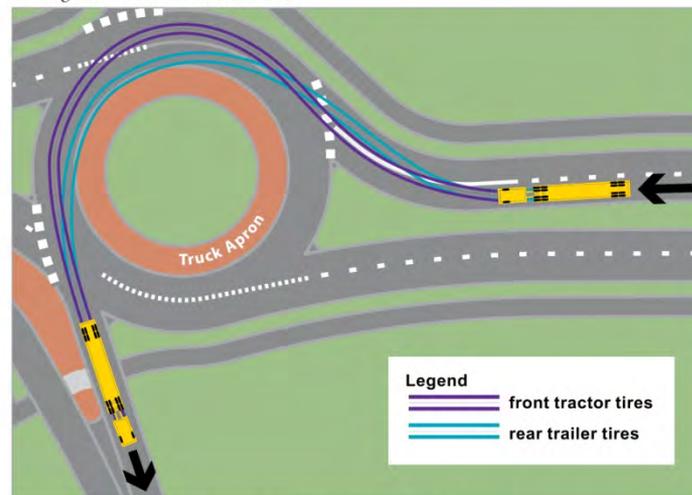


Case 2 & 3

Case 1 Roundabout Design

Case 1: Two-lane entrance Entry lanes are separated with a single white line

Figure 2.11c: Semi tractor-trailers are allowed to use both lanes (encroach) coming into and in the roundabout.



Reference: *Wisconsin Commercial Driver's Manual*, Volume 1, pages 2:14–2:16

Mineral Point Rd and Pleasant View Rd in Madison

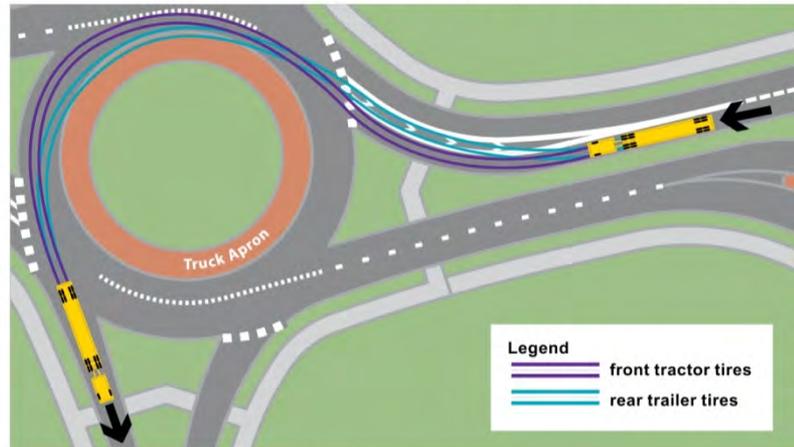


Case 2 Roundabout Design

Case 2: Two-lane entrance

Entry lanes are separated with two white lines (gore area)

Figure 2.11d: Semi tractor-trailers are expected to stay in-lane coming into the roundabout (using the gore area). Semis within the circulatory roadway (within the roundabout) may have to use a portion of the adjacent lane for right turns or through movements. Semis making a left turn should use the inside lane for the tractor, while the trailer will off-track onto the truck apron (reddish colored concrete).



Reference: *Wisconsin Commercial Driver's Manual*, Volume 1, pages 2:14–2:16

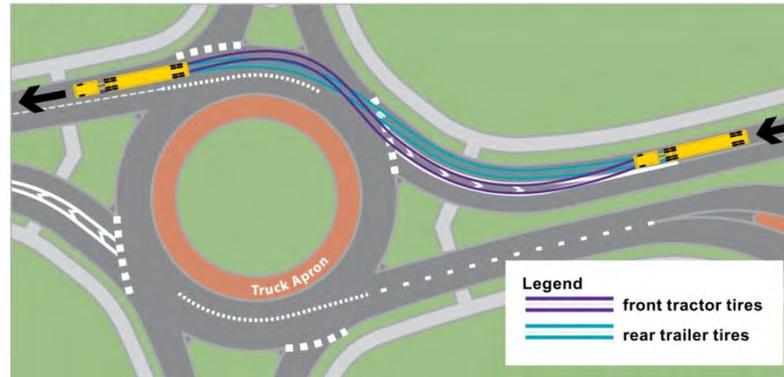
Lien Rd and Thompson Dr in Madison



Case 3 Roundabout Design

Case 3: Two-lane entrance Entry lanes are separated with two white lines (gore area)

Figure 2.11e: Semi tractor-trailers are expected to stay in-lane coming into the roundabout (using the gore area) and within the circulatory roadway (within the roundabout). The outside lane on the circulatory roadway is wide enough to allow the semi to stay in-lane. Semis making a left turn should use the inside lane for the tractor, while the trailer will off-track onto the truck apron (see Case 2).



Reference: *Wisconsin Commercial Driver's Manual*, Volume 1, pages 2:14–2:16

Lien Rd and Thompson Dr in Madison



Truck Accommodations



Lane Separation

04



Truck Apron

Conclusion

- Roundabouts are new and different; many drivers reluctant to change
- Confusion with neighborhood traffic circles and rotaries
- Roundabouts are enhanced with signage, roadway markings, and lighting to aid the driver in navigation
- Driver education through successful partnerships with local law enforcement
- WisDOT has developed educational brochures and video

That's All Folks!
Comments/Questions?

WisDOT website
www.wisconsinroundabouts.gov

