

TESTIMONY OF JONATHAN FRENCH, P.E. OF HALLOWELL
BEFORE THE JOINT STANDING COMMITTEE ON TRANSPORTATION
APRIL 15, 2021
FOR LD 1133, AN ACT TO AMEND THE TRANSPORTATION LAWS

Senator Diamond, Representative Martin and members of the Joint Standing Committee on Transportation, my name is Jonathan French and I am a licensed professional engineer residing in Hallowell. For full disclosure, I am currently the Engineering Data Manager for the Bureau of Project Development of MaineDOT, but prior to that I spent 15 years of my career as a designer for the MaineDOT Highway Program. In that position, I was able to design three roundabouts, peer-reviewed other designs, and co-authored design guidance for roundabout design for the Department. I am also a member of the Roundabout Standing Committee of the Institute of Transportation Engineers. Although I am an employee of the Department, I am testifying on my own time, and as a private citizen in support of LD 1133 because it provides much needed changes and additions for the proper operations of Maine's roundabouts.

Roundabouts have existed in Maine since 1997, when the first one was constructed in Gorham. Now, almost 30 additional roundabouts have been built, yet the current applicable statute still only refers to the operations at "traffic circles and rotary intersections." Maine no longer builds traffic circles or rotaries and the last true rotary to exist is in Windham, with all others either converted to roundabouts or modified to function as a roundabout.

Although many in New England still use the terms interchangeably, a roundabout is quite different from a rotary (see attached graphic). Rotaries have larger diameters and are designed to move traffic quickly. They have tangent entries, and multi-lane rotaries require weaving between the entries and exits to the rotary to reach the intended destination. This weaving combined with higher speeds has caused many crashes, and the building of new rotaries subsequently ceased nationwide by the 1950s.

Roundabouts were introduced in the United States in the late 1990s. They have smaller diameters, curved entries, and are designed to move traffic slowly and safely. Multilane configurations also do not allow for weaving. Instead, they are designed so a vehicle in the correct lane at entry, will be able to exit at its intended destination without the need for weaving.

This bill would propose to define roundabouts and also mini-roundabouts, which function like a single-lane roundabout, but allow large vehicles to traverse the mountable central island if necessary. It would also define a rotary so there is a distinct difference in statute between it and a roundabout. The bill would also limit travel in the outside lane of any traffic circle, rotary or roundabout to be permitted for only two exits. Lastly, it would add that all signs and pavement markings should be obeyed at roundabouts, traffic circles and rotaries. These are all needed and welcome changes and additions.

One additional item the Committee may want to consider though, is the addition of language addressing large trucks at a multilane roundabout. Washington State just passed a law in 2020 (language attached to the testimony), like ones in Indiana and Wisconsin, that allows tractor trailers, or combination vehicles as defined in Maine statute, to take up more than one lane entering, circulating and exiting a multilane roundabout. This allowance is described on page 87 of the *Maine Motorist Handbook and Study Guide* (attached to the testimony), but is not yet in Maine statute, nor included in this bill. For consistency and proper enforcement, I would recommend that similar language addressing the allowance for large truck maneuvers at multilane roundabouts also be included in this bill.

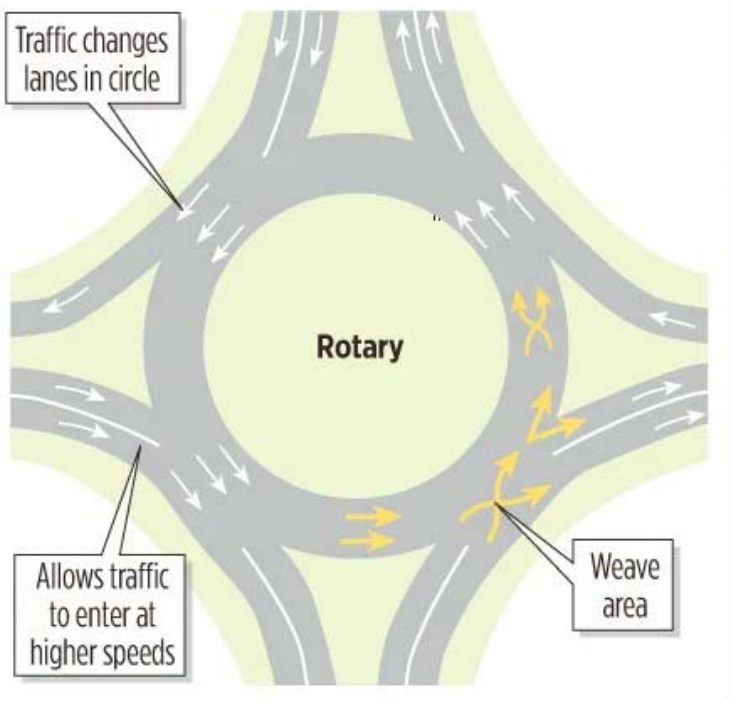
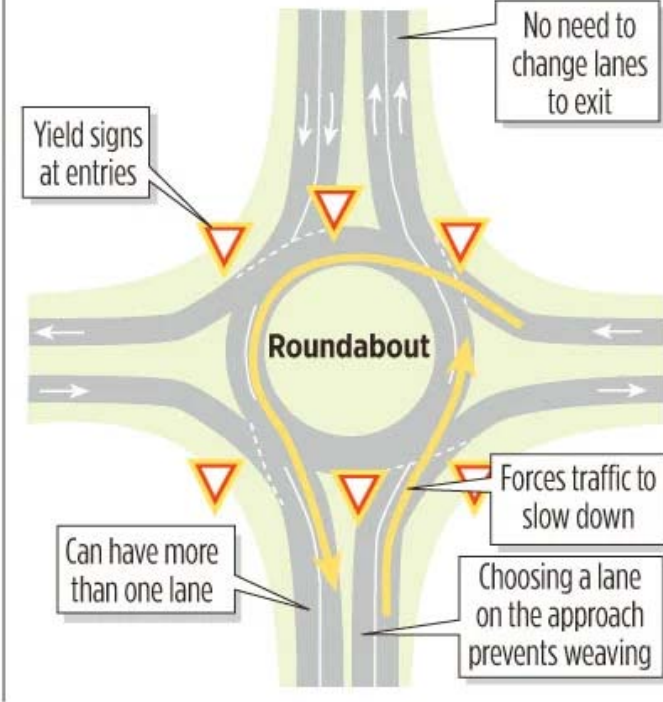
If LD 1133 were to become law, Maine would join 11 known states that officially recognize roundabouts in their state laws or codes (as of 2018). One of the reasons for a lack of roundabout acceptance and greater implementation nationwide, despite their safety benefits, increased user equity, climate resiliency, reduced greenhouse gas emissions, and community placemaking opportunity, is the overall lack of user education and inconsistent enforcement of proper operations. LD 1133 would be a good first step in providing more applicable language for motor vehicle operators at roundabouts and would give law enforcement agencies the tools needed to consistently enforce proper operations at all roundabouts in Maine, which will only increase their acceptance statewide. Therefore, I urge the Committee to vote “ought to pass” on this bill.

Thank you and I am happy to answer any questions.

Rotaries and roundabouts

Rotaries and roundabouts are both circular roadways intended to move traffic through intersections without using stop lights and unnecessarily delaying motorists. In Maine, motorists must yield before entering both rotaries and roundabouts. Rotaries and roundabouts are not the same thing, however.

What's the difference?

Rotary:	Roundabout:
<ul style="list-style-type: none"> ■ Designed to keep traffic flowing at higher speeds. ■ Much larger than a roundabout. ■ Drivers enter at the edge of the circle. ■ Speed and volume can cause traffic “lockups” in the circle. ■ No longer a preferred alternative. ■ Maine’s last three are in Augusta, Kittery and Windham. 	<ul style="list-style-type: none"> ■ Designed to slow traffic. ■ A fraction of the size of a typical rotary. ■ Tight turning radius. ■ Vehicles enter at a sharper angle. ■ Now a preferred alternative to traffic lights. ■ Maine now has 22 of them, with more on the way.
	

Source: Maine Department of Transportation, staff research

STAFF GRAPHIC | MICHAEL FISHER

1 (1) A vehicle shall be driven as nearly as practicable entirely
2 within a single lane and shall not be moved from such lane until the
3 driver has first ascertained that such movement can be made with
4 safety.

5 (2) Upon a roadway which is divided into three lanes and provides
6 for two-way movement of traffic, a vehicle shall not be driven in the
7 center lane except when overtaking and passing another vehicle
8 traveling in the same direction when such center lane is clear of
9 traffic within a safe distance, or in preparation for making a left
10 turn or where such center lane is at the time allocated exclusively
11 to traffic moving in the same direction that the vehicle is
12 proceeding and such allocation is designated by official traffic-
13 control devices.

14 (3) Official traffic-control devices may be erected directing
15 slow moving or other specified traffic to use a designated lane or
16 designating those lanes to be used by traffic moving in a particular
17 direction regardless of the center of the roadway and drivers of
18 vehicles shall obey the directions of every such device.

19 (4) Official traffic-control devices may be installed prohibiting
20 the changing of lanes on sections of roadway and drivers of vehicles
21 shall obey the directions of every such device.

22 (5) Pursuant to subsection (1) of this section, the operator of a
23 commercial motor vehicle as defined in RCW 46.25.010 may, with due
24 regard for all other traffic, deviate from the lane in which the
25 operator is driving to the extent necessary to approach and drive
26 through a circular intersection.

Passed by the Senate February 17, 2020.

Passed by the House March 6, 2020.

Approved by the Governor March 27, 2020.

Filed in Office of Secretary of State March 27, 2020.

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- Large trucks can take up multiple lanes as they maneuver through a roundabout, so other vehicles should not try to drive next to them while they are in the roundabout.
- Signal for a right turn at your exit.
- Check your rearview and right-side mirrors before exiting the roundabout.
- Watch out for bicycles and motorcycles. They might be less visible, but they have the same rights and responsibilities on the road as you do.
- ALWAYS yield to pedestrians crossing approaches to or exits from the roundabout.
- If an emergency vehicle enters the roundabout while you are in it, proceed to your exit and pull to the right after you have exited the roundabout. Do not enter a roundabout if emergency vehicles are already approaching or circulating.

If you are walking: In areas with sidewalks, marked crosswalks will be located one car length back from the yield lines at the roundabout entry points. **Only cross at marked crosswalks, and look for approaching traffic before crossing.**

If there are no sidewalks, walk on the outer-most edge of the roundabout use extreme caution in crossing any exit or entry lanes. Truck aprons, both around the central island and externally around the outside of the curves of the roundabout, are not sidewalks. They are not safe for pedestrians. Avoid walking on any truck aprons as they are expected to be driven on by large trucks and are not safe for pedestrians. Always cross traffic at the entry and exit lanes of the roundabout, and look for approaching traffic before crossing.

NEVER cross the circulating roadway to the central island of the roundabout.

For Trucks: It is especially important for large trucks to reduce speed in approaching and driving through a roundabout. At higher speeds, load shifting can occur that may cause loss of control of your vehicle. Pay attention to warning signs, pavement markings and other visual cues, to reduce your speed, and to drive safely and responsibly.

For long-wheelbase vehicles, “truck aprons” may be constructed to provide for off-tracking of the rear axles of the vehicle. These typically will be a concrete ring around the landscaped center island. For some roundabouts without sidewalks, there also may be external truck aprons provided on the outside corners at entries to the roundabout. Do not drive across the landscaped central island.