



# Frequently Asked Questions

## OR 201: Cairo Junction Roundabout

### Why are we installing a roundabout at Cairo Junction?

The answer is simple: safety. This high-speed intersection has a history of crashes that compelled us to find a solution. From 2009 to 2018, the intersection saw 31 crashes. Of these, 15 were injury crashes with one fatality. These numbers are high compared to intersections with similar traffic volumes.

We identified Cairo Junction for a potential signal/roundabout project back in 2001. Based on crash data through 2016, it became a priority. Our design team identified several options that improved safety and still supported the smooth movement of traffic. We decided on a roundabout because they provide a long-term solution to the problem of safety. Roundabouts reduce injury and fatal crashes by up to 90% by reducing speeds and changing the angle of impact of any potential crashes. Instead of rear-end and T-bone collisions, impacts are at side-to-side angles. The nature of roundabouts also reduces incidents caused by distracted driving. Compared to traffic lights where drivers may stop for short periods and be tempted to look at phones or other distractions, roundabouts keep traffic moving with few opportunities to be distracted.

### Why are we not installing a traffic signal at the Cairo Junction intersection?

We received several comments suggesting we install a traffic signal and lower speed limits. We did consider a traffic signal during initial designs. However, many rural traffic signals in Oregon have not reduced crashes. Some even result in increased crashes after installation. A good example is the traffic signal at OR 201/SW 18th Avenue west of Ontario. In the 10 years, 1993 to 2002, before we installed the signal, that intersection experienced 10 crashes with seven crashes involving injuries. For the most recent 10 years of crash history from 2010 to 2019, that same intersection experienced 22 crashes. One was a fatality. Ten others were injury crashes. We would expect to see similar or even higher crash numbers at Cairo Junction if we installed a traffic signal due to the increased traffic volumes going through Cairo Junction compared to OR 201/SW 18th Avenue.

Reducing the speed limit by itself is not an effective solution. In rural settings, lowering the speed has been proven to have limited compliance without regular onsite enforcement. Lower speed limits could cause drivers to get frustrated and ignore the lower speed limit. However, reducing speeds in addition to a roundabout will help increase safety.

### What improvements have we made at Cairo Junction?

We have installed a number of safety improvements in an effort to reduce crashes at Cairo Junction. These include:

- Suspended flashing warning beacon at intersection.
- Inside acceleration lane.
- Rumble strips on inside acceleration lane.
- Solid white line on inside acceleration lane.
- Advanced warning signs (minor improvement).

### What design options did we consider for Cairo Junction?

Our team considered several options before deciding on the roundabout as the right solution. These include:

- Candle sticks/barrier on inside acceleration lane similar to industry suggestion (Granger Avenue).

- Speed reduction.
- 4-way stop.
- Traffic signal.
- Overpass/underpass.

After weighing all considerations, we looked at three final options – leave as is; install traffic signals; or construct a roundabout. Because our main concern is safety, we have decided the roundabout is the best solution.

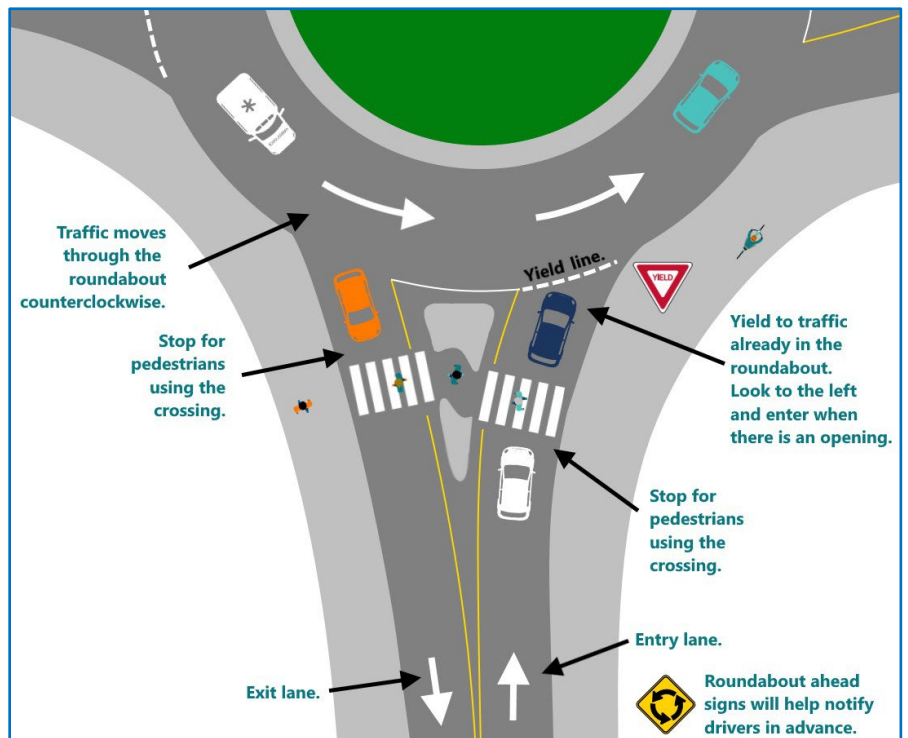
As part of the new Cairo Junction, we will incorporate strategies to inform drivers of the upcoming roundabout and increase safety. We will install advance-warning signs well ahead of Cairo Junction to give drivers plenty of time to prepare for the roundabout. The physical design of the road encourages drivers to slow down as they approach the circular roadway. The circulating speed in a roundabout is typically about 25 mph, but drivers are quickly able to return to the highway speed after exiting.

## How do I drive through a roundabout?

Two important things to remember while using roundabouts are: 1) Traffic moves in a counterclockwise direction around the center and 2) Vehicles in the roundabout have the right of way.

From there, follow these steps.

- As you **approach** the roundabout, slow down and look for signs to determine your exit. Watch for pedestrians or bicycles.
- Before you **enter** the roundabout, you must yield to the traffic inside. Vehicles moving within the roundabout have the right of way. Watch for a gap in traffic and merge. Be prepared to stop if necessary.
- Once inside the roundabout, **proceed** around the circle until you reach your exit. Do not pass any vehicles or bicycles within the roundabout.
- Indicate your intention to **exit** by using your right turn signal.



Even as drivers slow down, roundabouts still have the best operational performance and lowest overall delays to travelers out of all of the options we considered, including a traffic signal.

Follow this link for more frequently asked questions about driving through a roundabout.

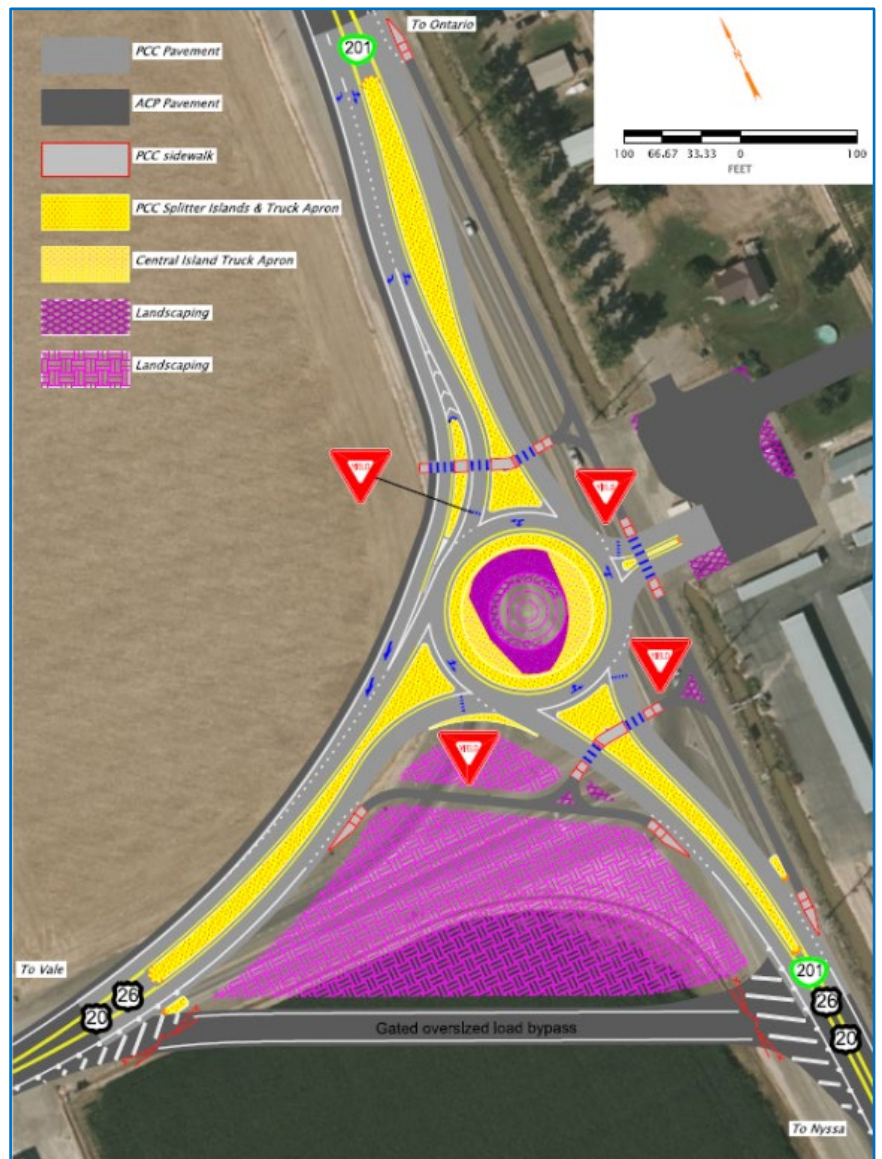
[Roundabout-FAQ-How-to.pdf \(oregon.gov\)](#)

## Can farm equipment and semi-trucks use the new roundabout?

Yes, large vehicles can make it through the roundabout being designed for Cairo Junction. We did receive comments concerned that large equipment would have difficulty using roundabouts. This may have been an issue in earlier roundabout designs. The highway roundabout designed for Cairo Junction will be much larger than those found in residential neighborhoods. We are designing it to accommodate any vehicle we know has used this highway in the last several years, as well as all of today's oversized loads.

Cairo Junction will also have these features especially designed for large vehicles:

- Mountable curb, known as a truck apron, on the center island. This allows semis and farm equipment to drive up on the apron while circling.
- Removable signs.
- Over-dimension bypass for over-dimension trucks travelling between Vale and Nyssa. The bypass will be gated and used on a case-by-case basis. Most loads will be able to pass through the roundabout.



There are some concerns that semis will tip using a roundabout. We are working with our agency's Mobility Advisory Committee (MAC) to monitor truck safety at state highway roundabouts, of which there are seven in Oregon. So far, we have only recorded one truck rollover crash. That occurred when a driver, unfamiliar with the area, entered the roundabout at speeds over 40 mph, according to the police report.

While we do not have many roundabouts in Oregon, we do have some with similar conditions as Cairo Junction. With seven roundabouts on our state highway system, over half are in rural areas that need to accommodate freight/farm traffic.

- US101/OR202 in Astoria opened in 2002.
- OR47/Verboort outside of Forest Grove opened in 2016.
- OR47/David Hill in Forest Grove opened in 2016.
- US20/Barclay in Sisters opened in 2017.
- OR126/Tom McCall in Prineville opened in 2018.
- OR140/Foothill north of Medford opened in 2020.
- OR140/Homedale in Klamath Falls opened in 2022.

## What if I encounter a semi or emergency vehicle in a roundabout?

If you enter a roundabout behind a semi, farm equipment or other large vehicle, give them plenty of room and do not pass. They may need to use the full width of the lane.

If you hear emergency vehicles as you approach a roundabout, pull over and let them through as you would in any other driving situation.

If you are already in the roundabout when you hear them, continue through the roundabout and pull over to the right side of the road as soon as it is safe to do so. Never stop for emergency vehicles while inside the roundabout.

## What's next for the Cairo Junction roundabout?

Our design team is finalizing plans through summer of 2022. The project opens for bids in October. Construction is scheduled to begin in 2023 and continue into 2024.

Learn more about the project by visiting the [project webpage](#).

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