



# Quadrant Roadway (QR)



State Route 4 at State Route 4 Bypass/Ross Road, Fairfield, OH

## What is a QR?

- Intersection design with one main intersection and two secondary intersections that are linked by a connector road in any quadrant of the intersection
- Left-turn vehicles from all four legs of the main intersection use the secondary intersections and connector road, instead of the main intersection, to complete left-turn movements
- Secondary intersections are typically signalized, but can also be unsignalized
- When all three intersections are signalized, traffic signals are timed to operate together

## When should a QR be considered?

- At intersections with heavy through and left-turn traffic volumes on the major and side streets
- At locations with an existing roadway that can be used as the connector roadway
- At intersections with four legs

## What are the benefits of a QR?

- **Improved safety:** Reduces and spreads out the number of points where vehicles may cross paths
- **Increased efficiency:** Rerouting left turns allows for fewer traffic signal phases at the main intersection, which means less time waiting for through and right-turn vehicles
- **Better synchronization:** Synchronization of three signalized intersections improves corridor travel times on both the major and side streets

## What are innovative intersections?

Intersection designs where traffic movements are modified to improve safety, reduce delay, and increase efficiency.

Visit [www.virginiadot.org/innovativeintersections](http://www.virginiadot.org/innovativeintersections) to learn more.





# Navigating a Quadrant Roadway (QR)

↩ To make a left turn from this leg, turn left onto the connector roadway then make another left turn

↩ To make a left turn from this leg, go straight through the first intersection, then turn left onto the connector roadway, then turn right onto the side street

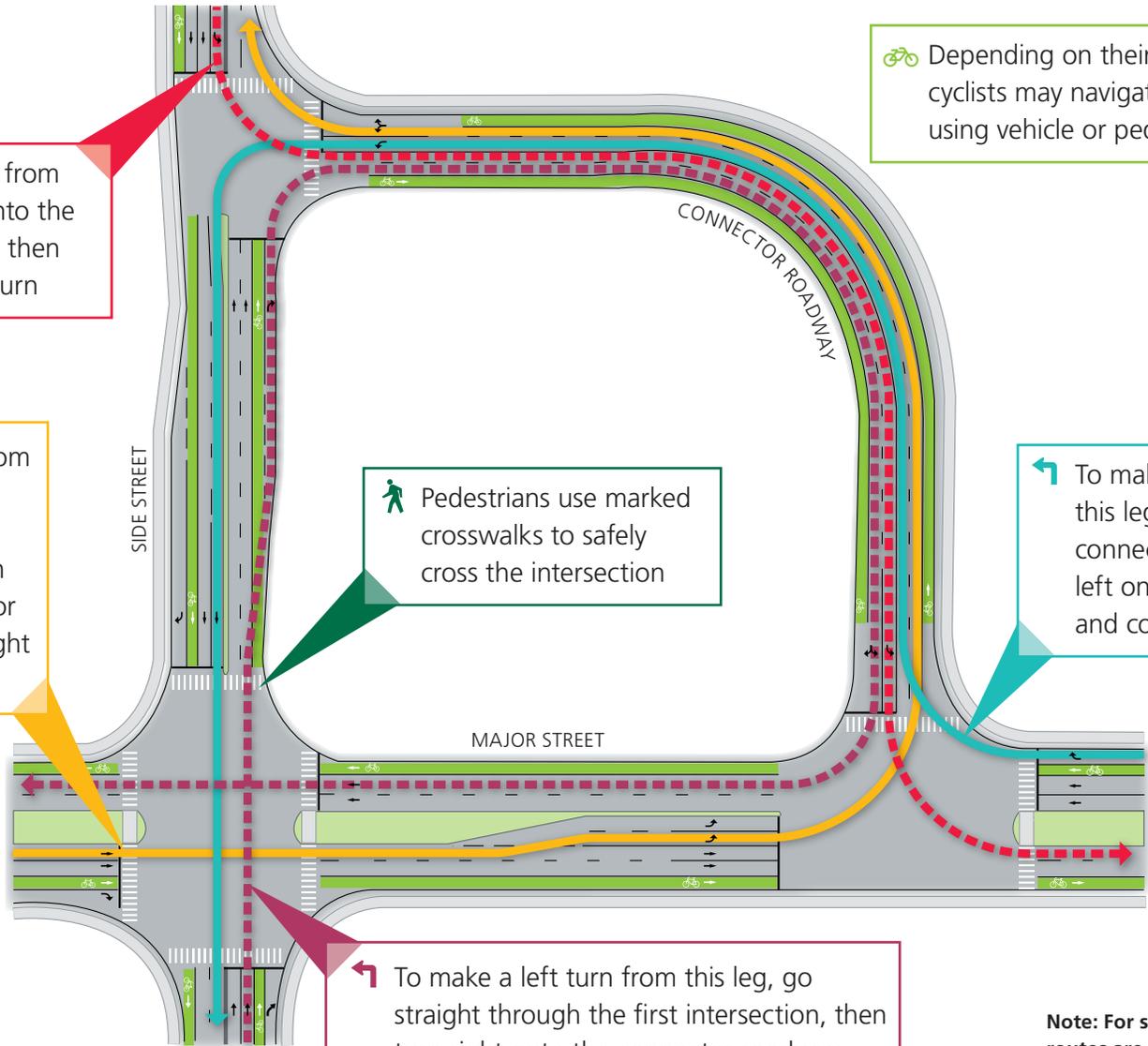
🚶 Pedestrians use marked crosswalks to safely cross the intersection

🚲 Depending on their level of comfort, cyclists may navigate the intersection using vehicle or pedestrian paths

↩ To make a left turn from this leg, turn right onto the connector roadway, turn left onto the side street, and continue straight

↩ To make a left turn from this leg, go straight through the first intersection, then turn right onto the connector roadway, then turn right onto the major street

**Note: For simplicity, only left-turn routes are shown. To continue straight and turn right, traffic follows similar routes to a conventional intersection.**



NOT TO SCALE