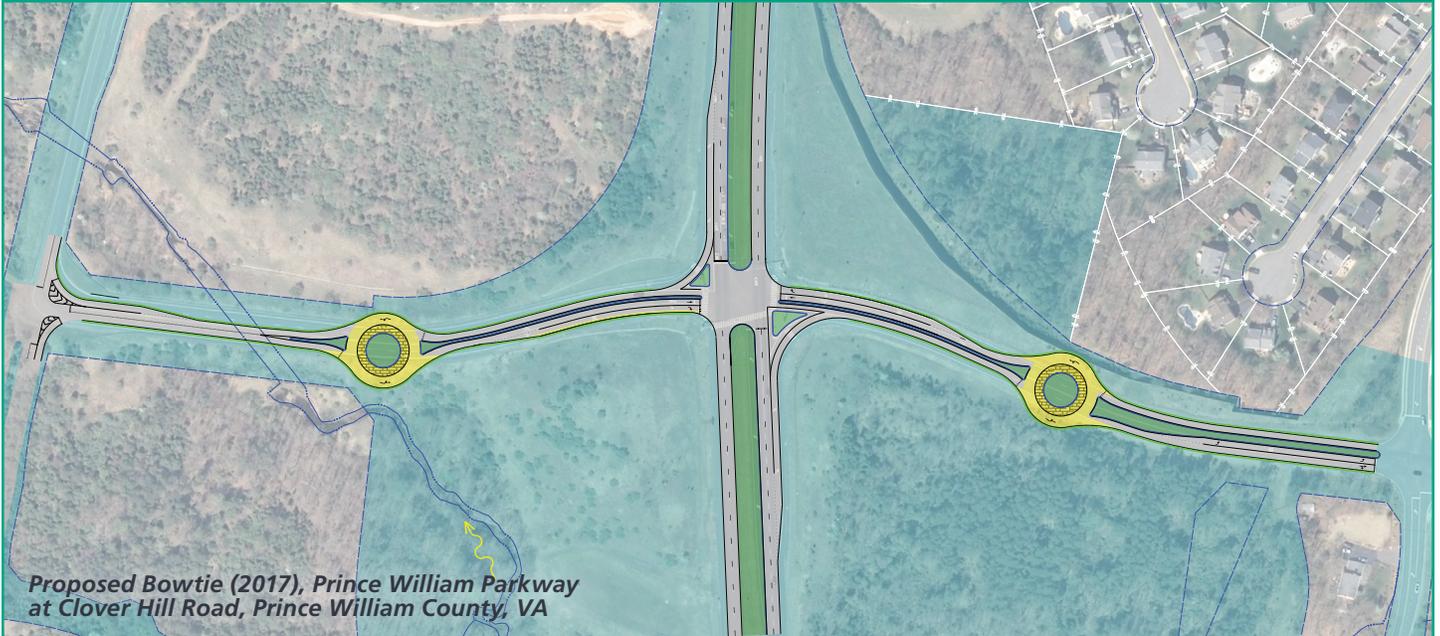




# Bowtie



*Proposed Bowtie (2017), Prince William Parkway at Clover Hill Road, Prince William County, VA*

## What is a bowtie?

- An intersection where left-turn movements are completed at an adjacent roundabout
- There are roundabouts on the side street, before and after the main intersection
- The roundabouts can have two, three, or four legs
- Traffic entering the roundabout slows down and yields to traffic already inside the roundabout
- The diameters of the roundabouts vary depending on speed, volume, size of vehicles, and number of legs

## When should a bowtie be considered?

- At intersections with moderate to heavy through traffic volumes and low to moderate left-turn traffic volumes
- At locations with narrow or non-existent medians and/or limited right-of-way to expand

## What are the benefits of a bowtie?

- **Improved safety:** Reduces the number of points where motorists, pedestrians, and bicyclists may cross paths; promotes lower vehicle speeds at the roundabouts, giving drivers more time to react
- **Increased efficiency:** Since there are no left-turns at the main intersection and the adjacent intersections are yield-controlled, a bowtie has fewer traffic signal phases, which reduces stops and delay
- **Shorter wait times:** Fewer traffic signal phases means less time stopping at the main intersection
- **Cost-effective:** A bowtie can be more cost-effective than adding lanes to increase capacity

## What are innovative intersections?

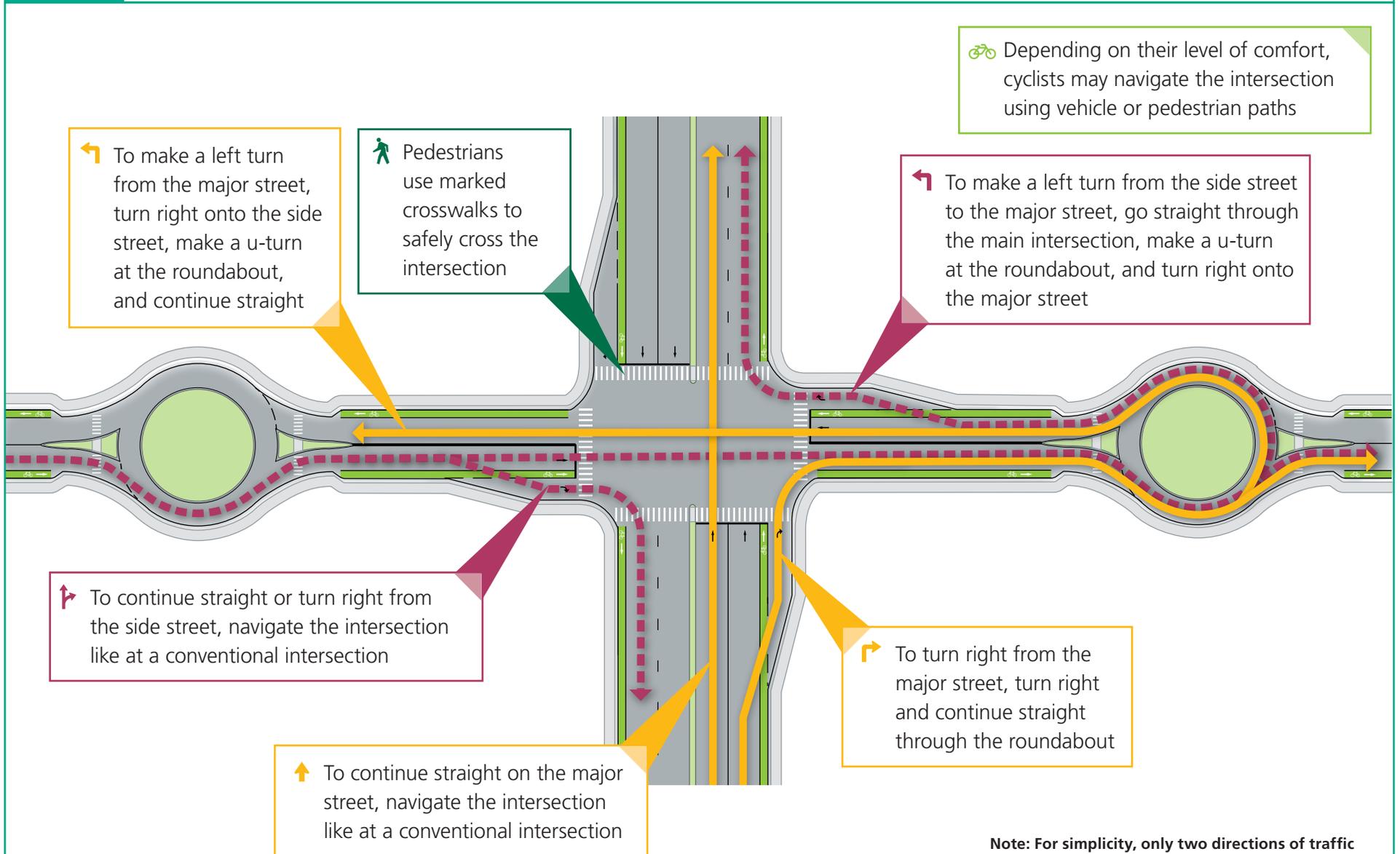
Intersection designs where traffic movements are modified to improve safety, reduce delay, and increase efficiency.

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





# Navigating a Bowtie



NOT TO SCALE

**Note:** For simplicity, only two directions of traffic are shown. Opposing traffic follows similar routes.