

Twin Hickory Lake at Hickory Bend

Department of Public Works

April 15, 2024



Why are we here?



- Twin Hickory Lake Drive at Hickory Bend Drive has had crashes over the years (more recently)
- Residents have expressed concerns regarding safety at this location for pedestrians and motorists
- Henrico County Public Works has done evaluations at this location to identify solutions
- The county has a desire to improve safety at this location



Current Challenges

- Difficult to turn left from Hickory Bend Drive on Twin Hickory Lake Drive
- 8 crashes in the last 5 years (including 2024)
 - Angle – 8 in 5 years including 2 in 2024
 - **3 angle crashes in 2023**
 - **2 angle crashes in 2024 so far**
 - 5 injury crashes (1 classified as severe)
 - Daytime crashes (7 day – 1 night)
 - Weather not a factor (8 crashes with dry weather)

Requests for Traffic Signals



- Received requests to evaluate a traffic signal in 2023 and 2024
 - Evaluated for signal warrants in 2023
 - Currently under evaluation for volume warrants now
- Prior to installing a traffic signal, a warrant must be met
 - Federal standard – Manual on Uniform Traffic Control Devices
 - Guidance standardizes traffic control – e.g., all “STOP” signs a red octagons with white lettering
 - Warrant considers hourly traffic volume and crashes
- **Previous signal warrants were not met for any conditions**
- Note: If warranted – signals take 10-12 months to construct

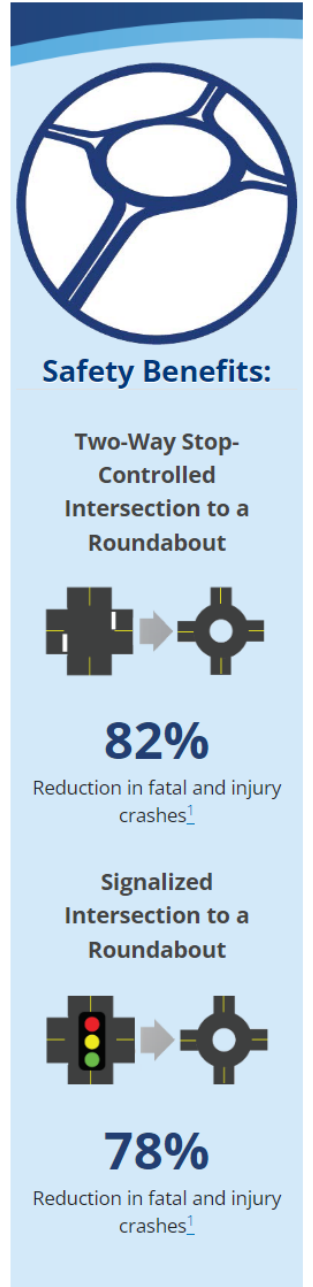
Possible Proven Safety Countermeasures

- Dedicated left- and right-turn lanes at intersections – **present**
 - 28-48% reduction in total crashes with left-turn lanes
 - 14-26% reduction in crashes with right-turn lanes
- Sign Improvements – **not applicable for current crash patterns**
 - 10% reduction in fatal and injury crashes
 - 15% reduction in nighttime crashes
- Bike Lanes – **installed on Hickory Bend Drive**
 - 30% reduction in total crashes on 2-lane undivided roads
 - 49% reduction in total crashes on 4-lane undivided roads
- **Roundabouts* - in consideration**
- Rectangular Rapid Flashing Beacons – **in consideration with roundabout**
 - 47% reduction in pedestrian crashes
 - 98% increase in yielding rates
- Medians and pedestrian refuge islands– **in consideration with roundabout**
 - 56% reduction in pedestrian crashes
 - **Requires removal of left-turn lane**
- <https://highways.dot.gov/safety/proven-safety-countermeasures>



Roundabouts in Henrico

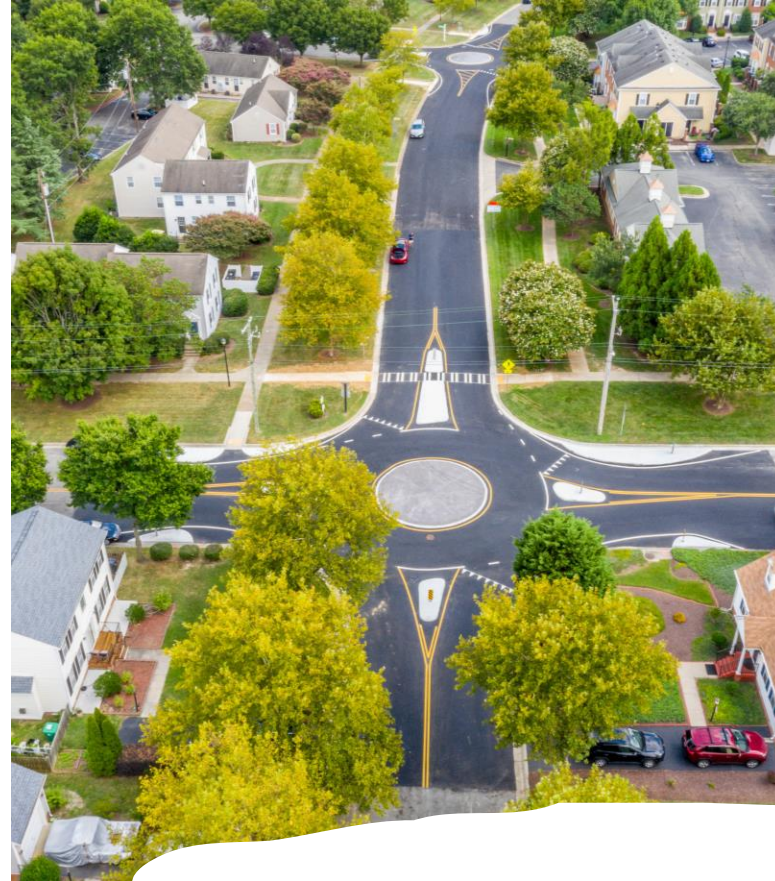
- Henrico has recently constructed 10 roundabouts since 2021
 - 7 are considered neighborhood roundabouts (25 mph roadways)
 - 3 are on two-lane roads with speed (35 mph+)
 - Intersections with severe injury crashes
 - 1 quick-build roundabout installed at Francistown Road (35 mph) at Hungary Creek Middle School in last two weeks
- Henrico Benefits
 - Reduction in crashes – elimination of injury-causing crashes at all locations
 - Only one location with crashes – Woodman at Greenwood
- Reductions in delays
 - Better operations at all intersections





Woodman Road at Magnolia Ridge Drive Case Study

- Woodman Road Extension opened Fall 2022
- After opening, 6 injury crashes occurred in 6 months
- Constructed quick-build roundabout Summer 2023
- Since installation – 0 crashes



Henrico Quick-Build Roundabouts

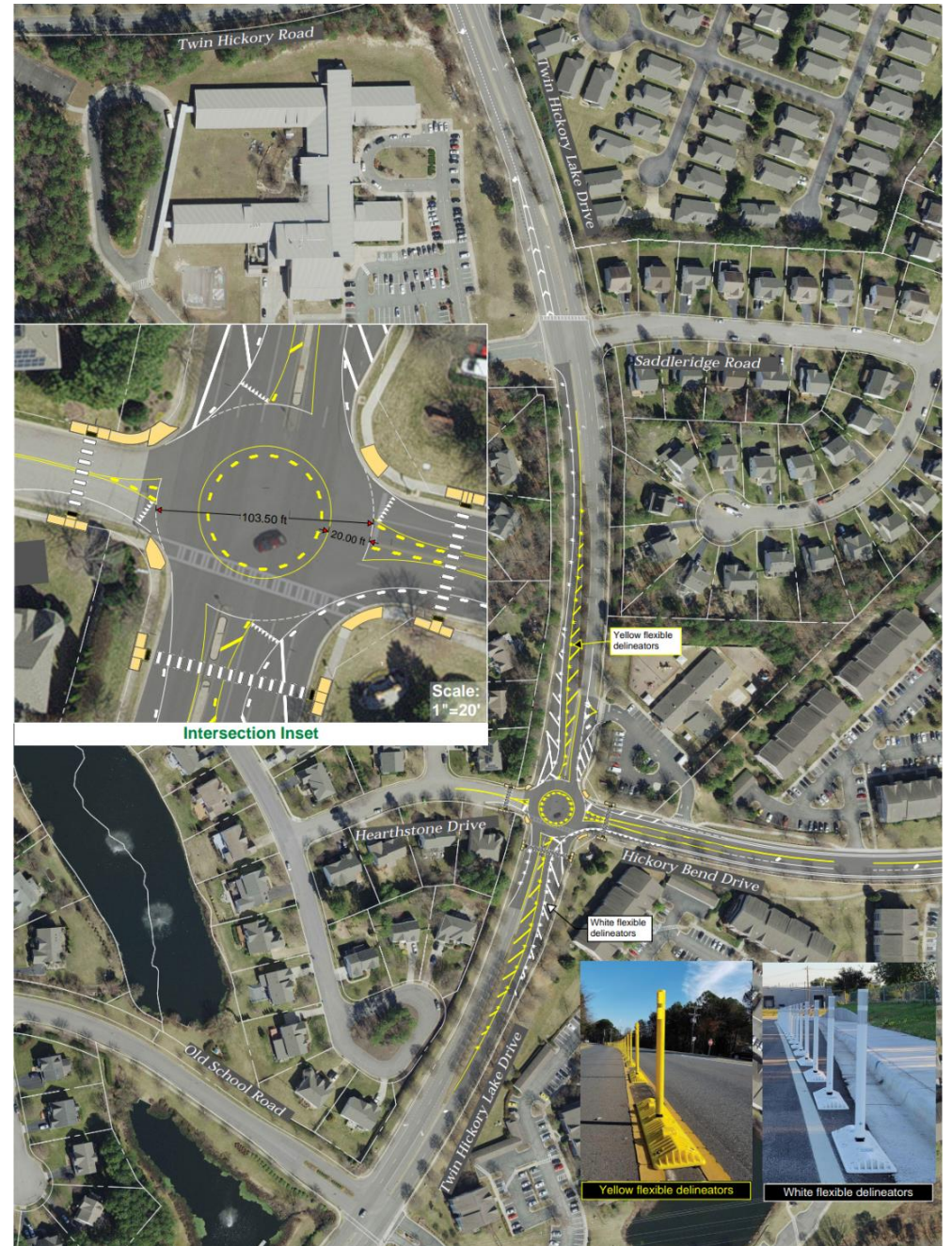
How they started

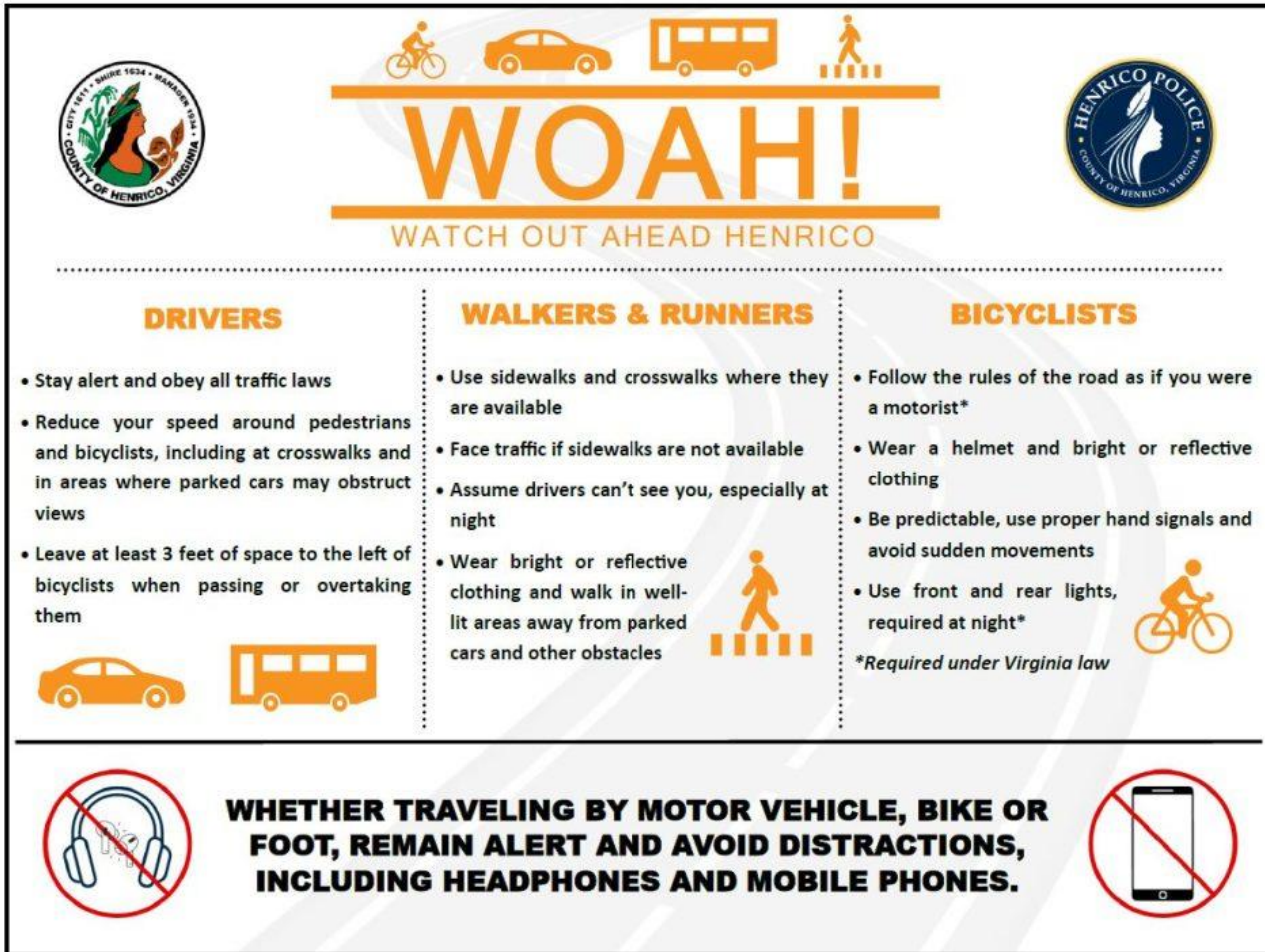
- Quick-build
- Temporary (pilot projects)
- Flexible posts



Proposed Roundabout

- Quick-Build w/ pedestrian ramp adjustments
- Projected Operations
 - AM and PM Peak Hour – LOS A
- Working on construction schedule for temporary roundabout
 - Must coordinate around school calendar
- If effective – construct permanent roundabout
 - Must coordinate around school calendar





The poster features the Henrico County logo on the left and the Henrico Police logo on the right. At the top, icons for a cyclist, a car, a bus, and a pedestrian are shown above the large text 'WOAH!' and the subtitle 'WATCH OUT AHEAD HENRICO'. The poster is divided into three columns: DRIVERS, WALKERS & RUNNERS, and BICYCLISTS. Each column contains a list of safety instructions. At the bottom, there are two circular icons with red slashes: one for headphones and one for a mobile phone, with the text 'WHETHER TRAVELING BY MOTOR VEHICLE, BIKE OR FOOT, REMAIN ALERT AND AVOID DISTRACTIONS, INCLUDING HEADPHONES AND MOBILE PHONES.' between them.

DRIVERS

- Stay alert and obey all traffic laws
- Reduce your speed around pedestrians and bicyclists, including at crosswalks and in areas where parked cars may obstruct views
- Leave at least 3 feet of space to the left of bicyclists when passing or overtaking them

WALKERS & RUNNERS

- Use sidewalks and crosswalks where they are available
- Face traffic if sidewalks are not available
- Assume drivers can't see you, especially at night
- Wear bright or reflective clothing and walk in well-lit areas away from parked cars and other obstacles

BICYCLISTS

- Follow the rules of the road as if you were a motorist*
- Wear a helmet and bright or reflective clothing
- Be predictable, use proper hand signals and avoid sudden movements
- Use front and rear lights, required at night*

**Required under Virginia law*

WHETHER TRAVELING BY MOTOR VEHICLE, BIKE OR FOOT, REMAIN ALERT AND AVOID DISTRACTIONS, INCLUDING HEADPHONES AND MOBILE PHONES.









In 2023, Henrico County had:
87 CRASHES involving PEDESTRIANS resulting in **9 FATALITIES**, and
23 CRASHES involving BICYCLISTS resulting in **ONE FATALITY**.




• <https://henrico.us/police/watchoutaheadhenrico/>

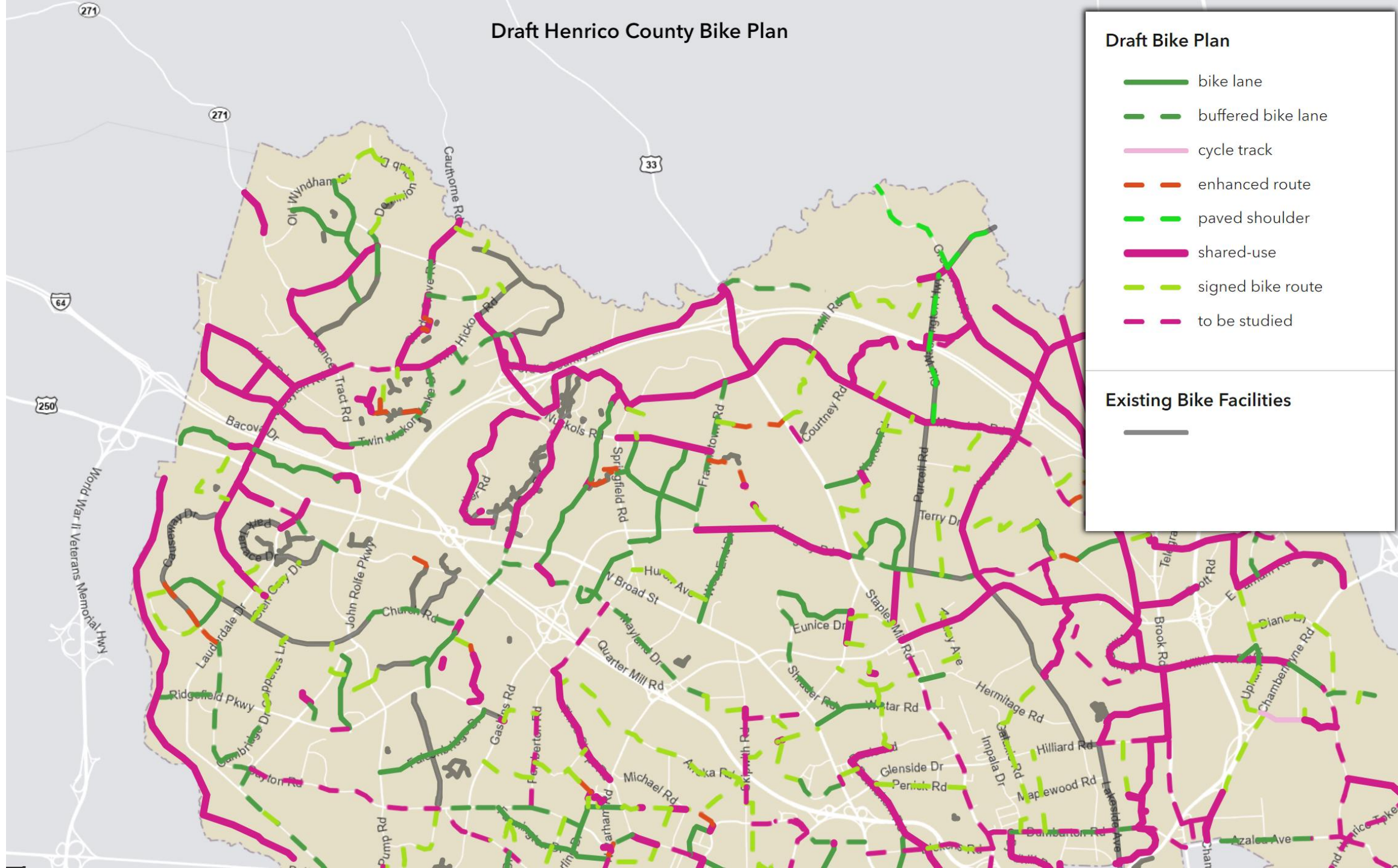
Draft Henrico County Bike Plan

Draft Bike Plan

-  bike lane
-  buffered bike lane
-  cycle track
-  enhanced route
-  paved shoulder
-  shared-use
-  signed bike route
-  to be studied

Existing Bike Facilities

- 





New Newsletter released last week

Word on the Street allows you to sign up for your desired district and receive monthly updates on projects happening from the Departments of Public Works and Public Utilities. Each newsletter will have upcoming and current projects, as well as information on resources and opportunities available to you from DPU and DPW.



Sign Up Today!