

# Francistown Road Improvements

Department of Public Works

March 25, 2024



# Why are we here?



- Francistown at Hungary Creek Middle School / Shimmering Lane experiences delays during morning and afternoon drop-off times
- Residents have expressed concerns regarding safety at this location for pedestrians and motorists
- Difficult for school buses to exit
- Henrico County Public Works has coordinated with Henrico County Public Schools regarding a need to address this
- The county has a desire to improve safety at this location





## Current Challenges

- Left-Turn Delay from Hungary Spring MS
  - 8:00 – 9:00 am – Average Delay 70 seconds (Grade F)
  - 2:30 – 3:45 pm – Average Delay 60 seconds (Grade F)
- Left-turns into the middle school
- School buses leaving the middle school
- Ability to turn out from Shimmering Lane
- 4 crashes in the last 5 years
  - 2019 - rear end
  - 2021 - left-turn angle
  - 2023 – rear end and a pedestrian crash

# Requests for Traffic Signals



- Received requests to evaluate a traffic signal in 2023 and 2024
  - Evaluated for signal warrants both times
- 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
- **Signal warrants were not met for any conditions**
- Note: If warranted – signals take 10-12 months to construct



# Possible Proven Safety Countermeasures

- Rectangular Rapid Flashing Beacons - **installed**
  - 47% reduction in pedestrian crashes
  - 98% increase in yielding rates
- Medians and pedestrian refuge islands
  - 56% reduction in pedestrian crashes
  - **Requires removal of left-turn lane**
- Bike Lanes – **installed**
  - 30% reduction in total crashes on 2-lane undivided roads
- **Pedestrian Hybrid Beacons\*** - in consideration
- **Roundabouts\*** - in consideration
- <https://highways.dot.gov/safety/proven-safety-countermeasures>



# Pedestrian Hybrid Beacon

- Pedestrian Hybrid Beacons (PHBs) are a traffic control device that warn and control traffic at unsignalized locations.
- PHBs assist pedestrians in crossing a street or highway at a marked crosswalk.
- PHBs use a sequence of lights to stop traffic and allows a pedestrian to travel across the roadway safely.
- Possible installation mid-block between Hungary Creek MS and Nuckols Road
- 10-12-month timeline
- VDOT Video:  
<https://www.youtube.com/embed/eKQOjt3p5JA>



## Safety Benefits:

**55%**

reduction in pedestrian crashes.<sup>3</sup>

**29%**

reduction in total crashes.<sup>4</sup>

**15%**

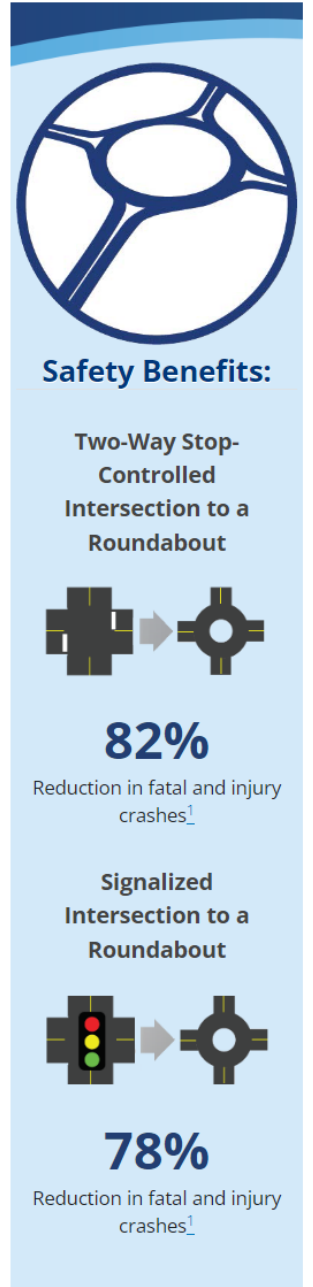
reduction in serious injury and fatal crashes.<sup>4</sup>



Example of PHBs mounted on a mast arm. Source: FHWA

# 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
- 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



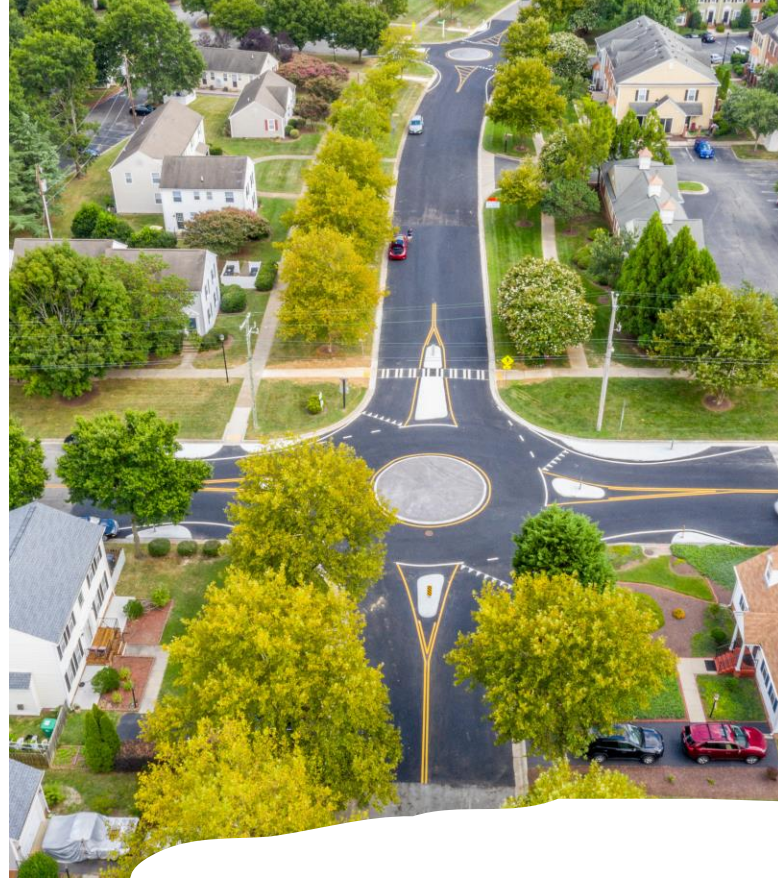




## Woodman Road at Magnolia Ridge Drive Case Study

- 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 - 12 second delay (Grade B)
  - PM – 8 second delay (Grade A)
- Proposed construction during spring break week (April 2024)
- Testing period between spring break and end of school year
- If effective – construct permanent roundabout summer 2024



# WOAH!

WATCH OUT AHEAD HENRICO

DRIVERS	WALKERS & RUNNERS	BICYCLISTS
<ul style="list-style-type: none"> <li>Stay alert and obey all traffic laws</li> <li>Reduce your speed around pedestrians and bicyclists, including at crosswalks and in areas where parked cars may obstruct views</li> <li>Leave at least 3 feet of space to the left of bicyclists when passing or overtaking them</li> </ul>	<ul style="list-style-type: none"> <li>Use sidewalks and crosswalks where they are available</li> <li>Face traffic if sidewalks are not available</li> <li>Assume drivers can't see you, especially at night</li> <li>Wear bright or reflective clothing and walk in well-lit areas away from parked cars and other obstacles</li> </ul>	<ul style="list-style-type: none"> <li>Follow the rules of the road as if you were a motorist*</li> <li>Wear a helmet and bright or reflective clothing</li> <li>Be predictable, use proper hand signals and avoid sudden movements</li> <li>Use front and rear lights, required at night*</li> </ul>

*\*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/>




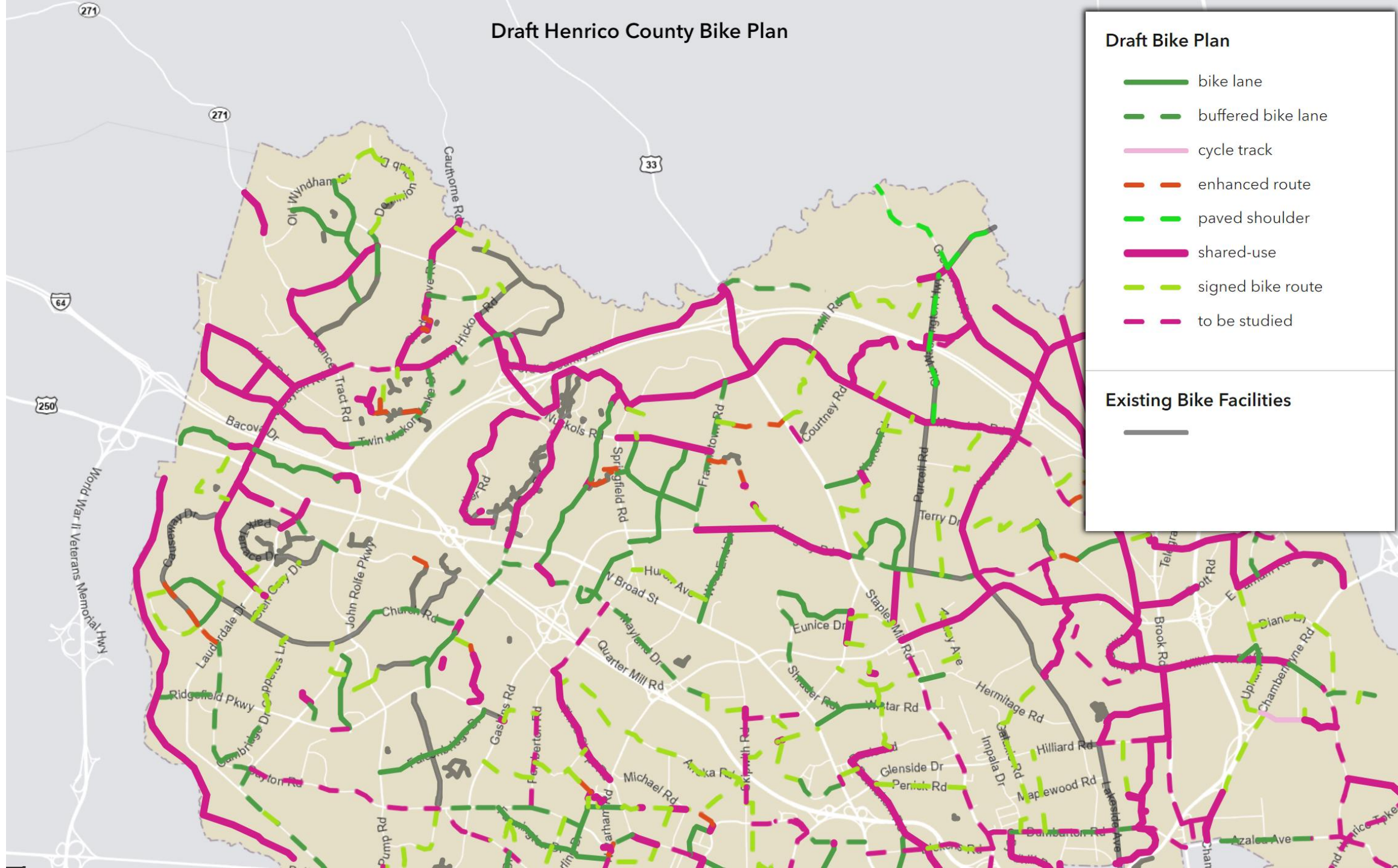
# Draft Henrico County Bike Plan

### 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!*