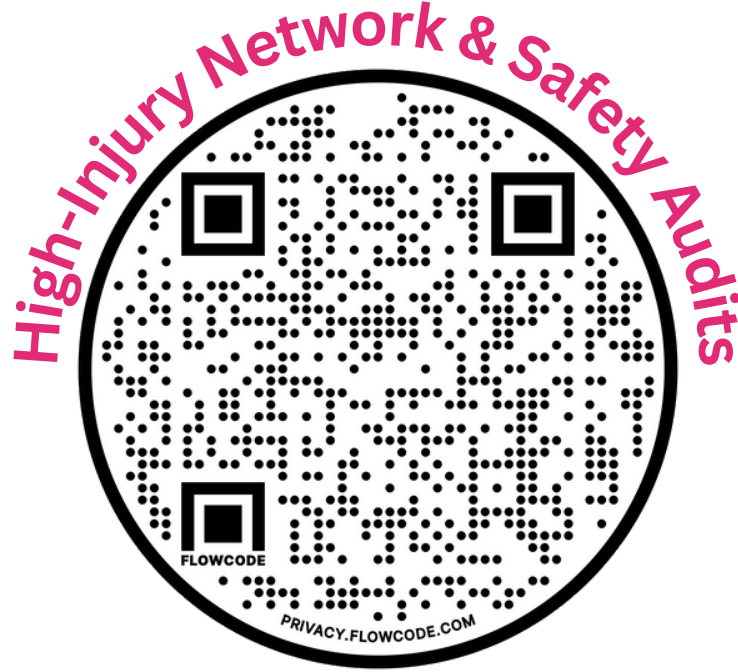


Arlington County, VA

Vision Zero: Initiatives | Infrastructure | Results

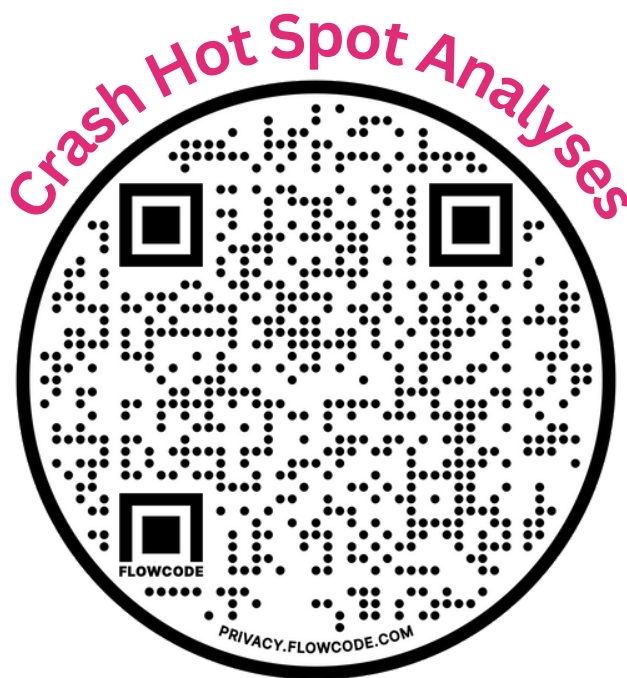
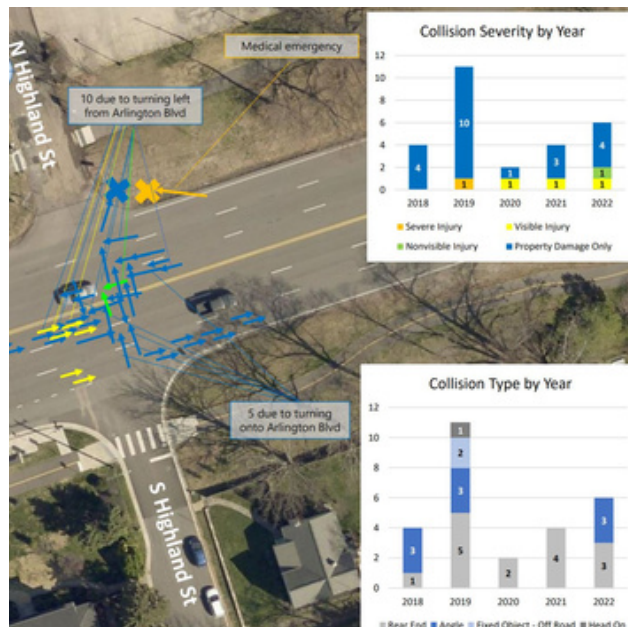


Safety Initiatives



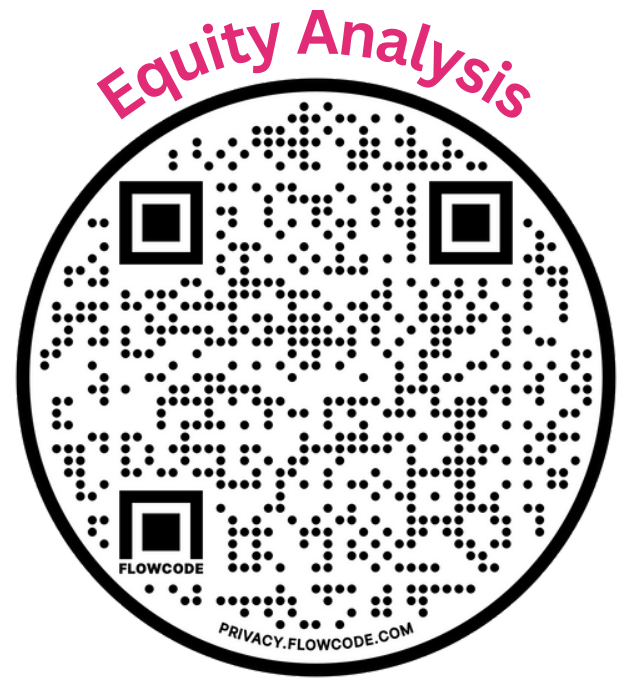
High-Injury Network & Safety Audits: Walking assessments of HIN corridors to identify quick fix/build improvements and ensure that future planning efforts consider large scale corridor needs.

Crash Hot Spot Analyses: Review of crash hot spots, identified by using crash and near-miss data, to implement safety improvements through projects ranging from signage/marketing changes to signal retrofits.



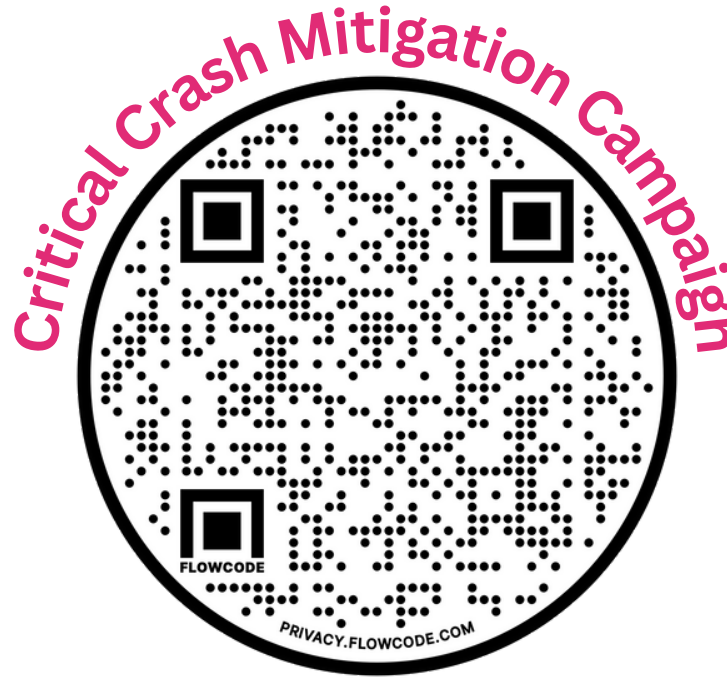
Systemic Safety: Implementing holistic/countywide level safety improvements or policies to address crash risk patterns. (In other words, see a problem in one place, fix it everywhere like it).

Equity Analysis: Analysis of transportation safety issues to identify and address areas and/or residents who are disproportionately affected by crashes, and implementing action plans to rectify imbalances.



School Zone Retrofits: Review and retrofit all school zones in the County to meet newly established school zone guidelines, which includes a new policy for 20 mph slow zones on all neighborhood streets within 600-ft of a school.

Critical Crash Mitigation Campaign & Engagement: Promoting Vision Zero and transportation safety messaging through targeted advertisements and education materials throughout the community.



| Crossings & Signals | | |
|-------------------------|--|---|
| Tool | Crossing Signs & Markings | Travel Lane Signs & Markings |
| Purpose | Alert drivers to expect pedestrian crossing and indicate pedestrian crossing location for drivers. | Inform road users of lane changes and warnings to facilitate safe flow of all road users. |
| Expected Outcome | Improved pedestrian crossing safety. | Improved safety between drivers and pedestrians at signalized intersections. |
| Cost | Low | Low to Medium |
| Timeline | Short | Short |
| Tool | Raised Refuge Islands | Protected Intersections |
| Purpose | Increase pedestrian visibility and provide a pedestrian waiting area. | Slow vehicle turning and reduce conflicts between pedestrians and vehicles. |
| Expected Outcome | Improved pedestrian crossing safety. | Expected reductions in crashes and severity of crashes. |
| Cost | Low to Medium | Medium to High |
| Timeline | Short | Short |

Multimodal Safety Engineering Toolbox: Living document that highlights tools for improving safety to inform internal and external stakeholders about safety improvement options and their appropriate uses and contexts.



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Safety Infrastructure



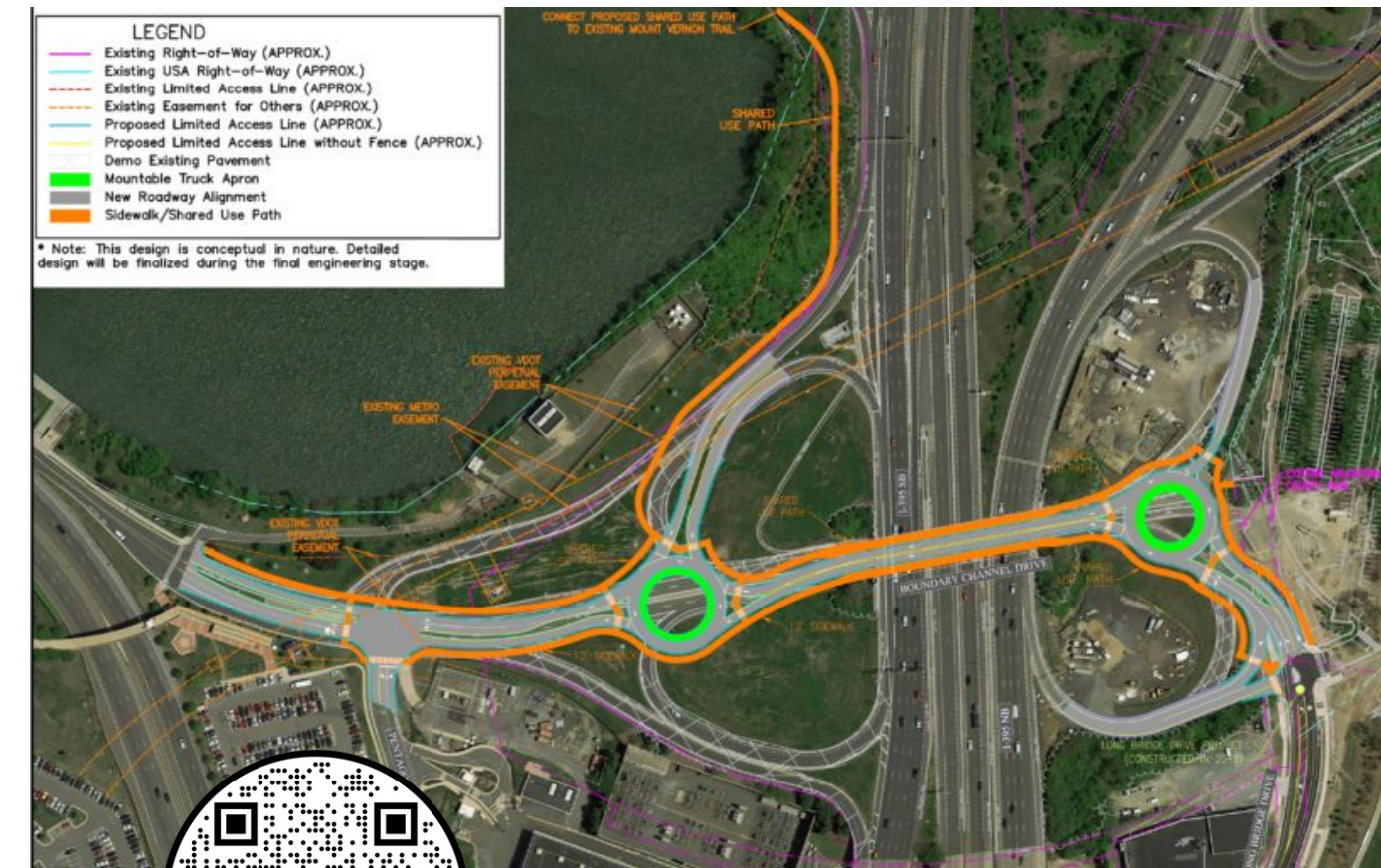
Community-Driven Projects: The Neighborhood Complete Streets program was launched in 2016 by the Arlington County Board as a means to address safety and accessibility issues on local streets. Spearheaded by the Neighborhood Complete Streets Commission, which is lead by Arlingtonian residents, the Program solicits requests for projects from the community annually, which are then scored by Board-established safety criteria. The Program delivers concrete and interim street improvements such as the above pedestrian refuge island at the intersection of S Adams St and 6th St S.



Development-Led Projects: In response to growing demand for protected bikeway infrastructure from local residents and frequent instances of vehicles parking in existing conventional/buffered bike lanes, Arlington advanced the design of the Crystal City Bike Network in 2020. By coordinating the delivery of capital projects with private development, we have been able to implement permanent infrastructure such as the above protected signalized intersection at S Eads St and 15th St S, linking activity centers with our trail and protected bike lane network.



Partner Projects: Arlington is growing! With the advent of more mixed-use development that welcome existing and future Arlingtonians and businesses, we work across departments and agencies at the local/state/federal level to deliver capital projects that serve multiple and unique purposes. The image above, for instance, showcases a new RRFB that was installed in conjunction with a new trail crossing linking the Mt. Vernon Trail and protected bike lanes (the Crystal City Bike Network), in addition to serving as a new mid-block crossing between the Crystal City Water Park and new mixed-use development.



Safety-Driven Capital Projects: The Boundary Channel Drive Interchange project upgrades an existing interstate interchange adjacent to an urban area in order to improve traffic operations and safety for all users. The project replaces existing interwoven lanes with two roundabouts to streamline traffic flow and reduce the risk of collisions. Bike and pedestrian connectivity are also a part of the project, including RRFBs and improved trail connections.



Repaving Program Projects: We converted a central segment along Wilson Blvd (a major east-west corridor in Arlington) during the repaving cycle for the roadway. This project transitioned the road from two lanes in each direction to one travel and one bike lane in each direction, plus a center turn lane. This project allowed for greater bike connectivity along the corridor and to intersecting trailheads.



Tactical Quick-Build Projects: The above intersection at George Mason Dr & N Park Dr experienced repeated angle crashes resulting in injury. We programmed a capital project to add a traffic signal; however, crashes continued while the project progressed through design. We restricted straight/through movements at the stop-controlled approaches to address the crash pattern as an interim solution.



Concrete Quick-Build Projects: The intersection of Wilson Blvd & N Quinn St (on Arlington's High-Injury Network) required the installation of a new concrete valley gutter to resolve a drainage issue at the northeast corner of the intersection. Leveraging the stormwater project, County engineers also provided new concrete islands to protect people walking and biking near the northwest corner of the intersection, where there already exists a protected bike lane connection.



Pilot Projects: We took before/after speed data in our new 20 mph school slow zones. On corridors that did not experience a reduction in speeds, we added tactical speed humps to slow vehicles down. This was done as a pilot since a moratorium on speed humps had been in place in Arlington for nearly 10 years. This project allowed us to reintroduce this effective tool through a data-driven, school-focused approach.

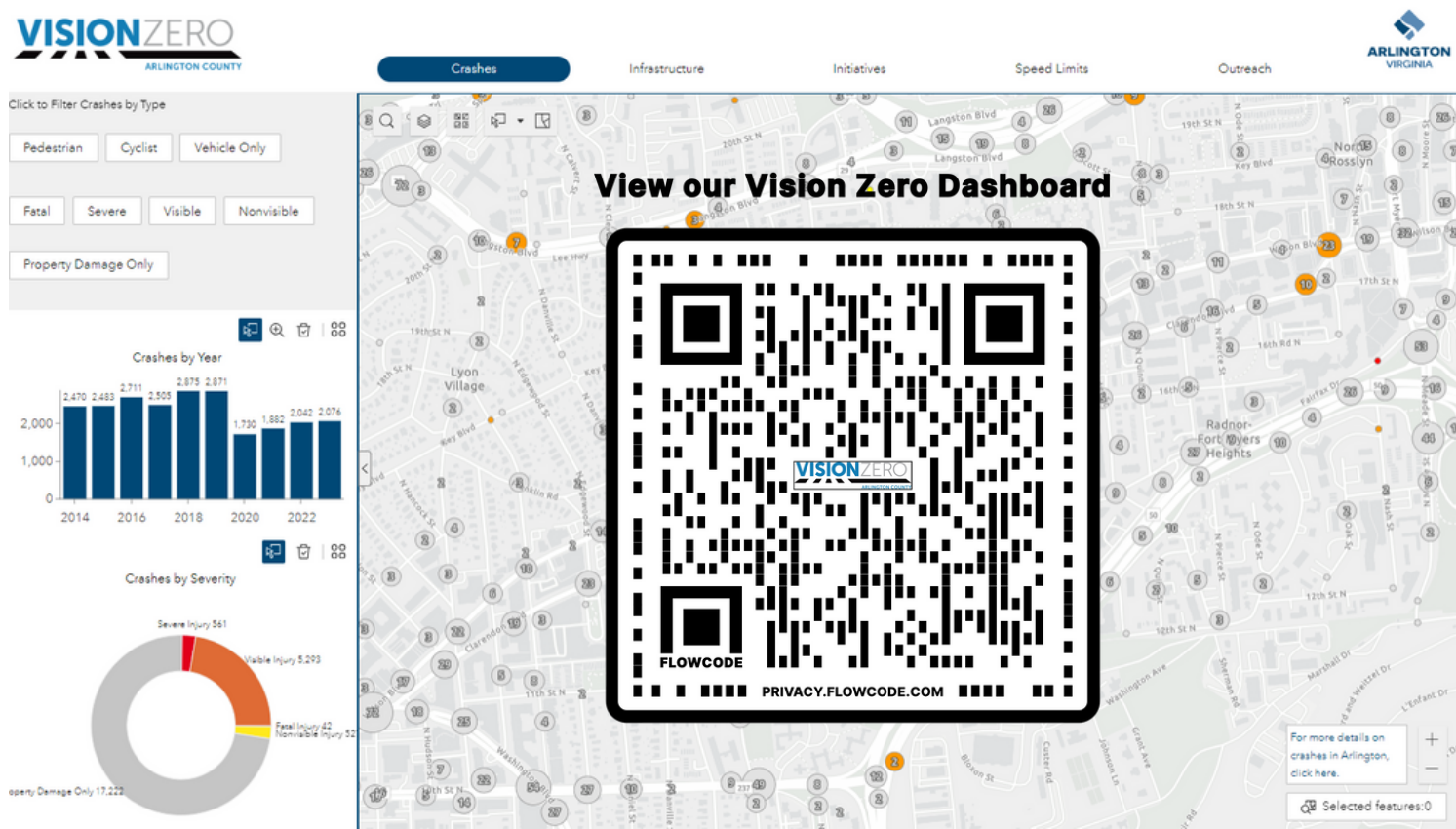


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Vision Zero: Initiatives | Infrastructure | Results



Results



Tracking Progress:

Transparency & Accountability are core goals of Arlington’s Vision Zero program. We publish detailed progress reports every six months, and we recently published an interactive dashboard that actively tracks crashes, infrastructure, initiatives, speed management, and outreach work.

Recognitions:

- The Walk Friendly Communities program in 2022 awarded Arlington County with a Platinum-level designation.
- The League of American Bicyclists recognized Arlington County as a Gold-level Bicycle Friendly Community in 2024.
- Arlington County received the 2023 Vision Zero for Youth Leadership Award.



Before/After Studies:

We review the efficacy of transportation safety improvements by assessing conditions before and after the installation of countermeasures. These studies inform policies and the future implementation of crash mitigation strategies.

Double Left Removal at Hot Spot

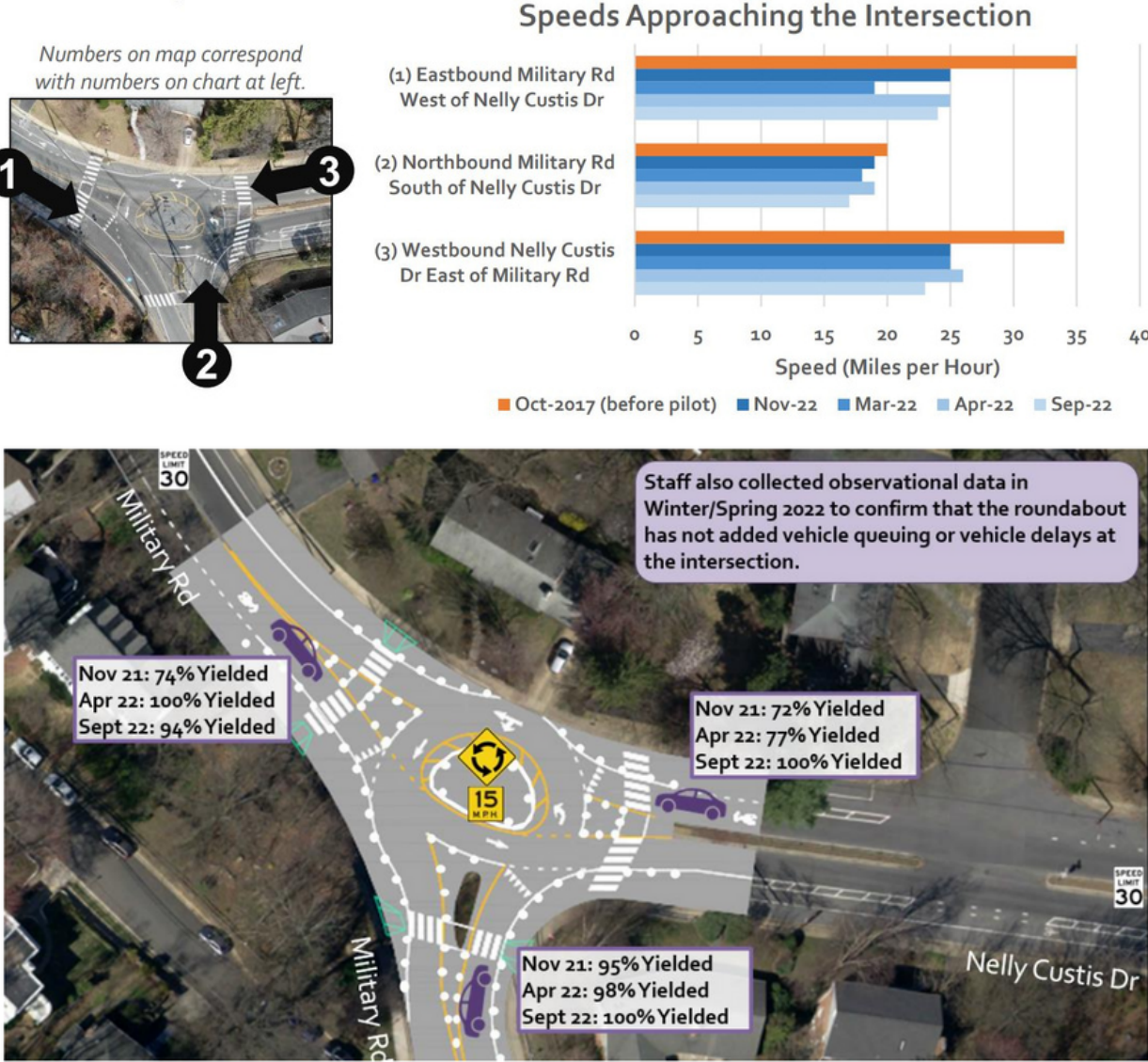


This pilot, at a dense urban intersection: (1) reduced vehicle turning conflicts with people walking or biking across the east leg of the intersection, (2) increased visibility and awareness of people crossing eastbound Langston Blvd by removing one of the southbound Fort Myer Dr left turn lanes, and (3) added a Leading Pedestrian Interval (LPI) to give the person walking a head start during the walk phase.

Before and after data from the pilot period showed a 40% reduction in pedestrian-to-vehicle conflicts given the LPI and turn lane removal, and a significant reduction in crash rates.

We recently experienced pedestrian crashes at this location, so we will be reassessing conditions and identify additional strategies and approaches to guide safety improvements.

Pilot Roundabout

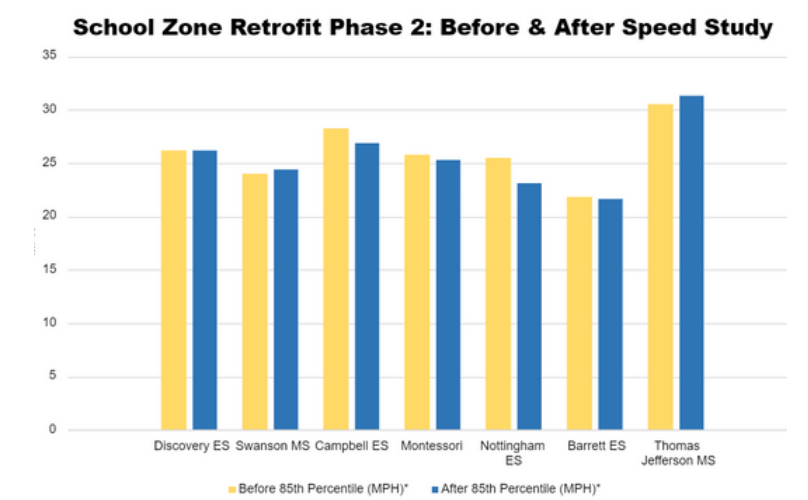
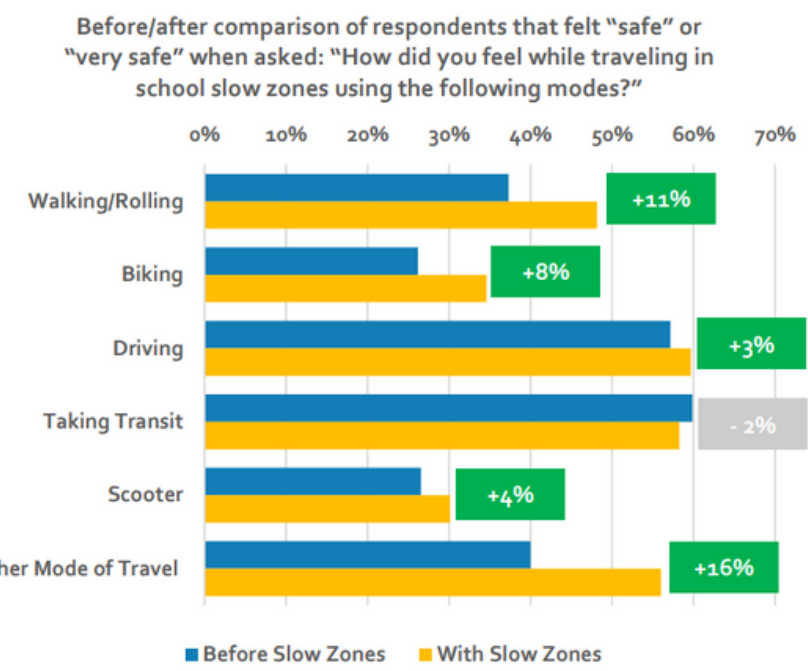


We piloted a temporary roundabout to enhance safety for people walking at the intersection of Military Rd and Nelly Custis Dr. Findings informed future intersection designs:

- The pilot successfully reduced vehicle speeds along all approaches to the intersection.
- Despite a low sample size, data generally indicate that yield rates are higher for people walking.
- Vehicle-to-vehicle yield rates have improved over the course of the pilot, indicating that people driving are becoming familiar and responsive to the roundabout.

Due to positive safety impacts, the temporary roundabout pilot condition will be updated into a permanent roundabout capital project. The temporary roundabout will be enhanced in 2024.

School Slow Zones



Since 2022, we have been installing new school slow zones (20 mph speed limits applicable at all times of day) on neighborhood streets around schools. The demonstrations included retrofitting the entire of each school zone to ensure high visibility crossings and school zone signage.

Community feedback has indicated that many people felt safer walking, biking, and driving because of the new school slow zones. Before/after speed data showed mixed results across schools. We launched a tactical speed hump pilot as a reinforcement measure for the new speed limits in locations where speeds remained high.



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