



Vision Zero prioritizes safe walking and biking for youth in Arlington, Virginia

Escuela Key Bicibus, Arlington, VA.
Source: AB Corson



AROUND THE U.S. AND WORLD, communities are committing to eliminating traffic fatalities and serious injuries, often as part of Vision Zero initiatives. A growing group of these cities is focused on improving safety on school routes and other places where children and youth walk and bicycle. In some places, youth are actively working with cities and other partners to effect this change.

Vision Zero for Youth recognizes that starting with youth can be the catalyst to build community support for Vision Zero; that Vision Zero should include a focus on youth and that youth voices can play an important role in creating safer streets.

Vision Zero for Youth supports a Safe System approach to reaching zero serious injuries and deaths on roads. The Safe System approach is a shift away from a focus on the behavior of individual road users to a focus on changing the system to provide safer environments for all road users. Equity and consideration for underserved communities is a part of each of the key components of Vision Zero for Youth:

- **INFRASTRUCTURE IMPROVEMENTS** to calm traffic, improve crossings, and provide safe spaces for all users.
- **POLICIES AND PROGRAMS** focused on core issues such as slowing vehicle travel speeds.
- Use of crash **DATA AND PATTERNS** to identify problems, assess risk factors and apply solutions in a systemic way.
- **PARTNERSHIPS** with education, transportation, law enforcement, local safety and health organizations, community members, elected officials and advocates.
- **ENGAGEMENT** of the community around a culture of road safety, with an emphasis on youth empowerment.

ARLINGTON, VA: 2024 VISION ZERO FOR YOUTH U.S. LEADERSHIP AWARD RECIPIENT

The purpose of the Vision Zero for Youth U.S. Leadership Award is to both give recognition for noteworthy road safety practices and inspire other cities to take bold steps to reach zero traffic deaths among children and youth. It is presented by the Vision Zero for Youth initiative, led by the National Center for Safe Routes to School with support from the FIA Foundation and the UNC Highway Safety Research Center. In 2024, the U.S. award program was informed by an advisory committee including Institute of Transportation Engineers, New York City Department of Transportation, Federal Highway Administration, National Highway Traffic Safety Administration, Safe Kids, Safe Routes Partnership, FIA Foundation, Atlanta Department of Transportation, Conference of Minority Transportation Officials, National Organizations for Youth Safety and others.

Cities recognized with Vision Zero for Youth U.S. Leadership Award have taken impressive action to improve walking and biking safety for their children and youth with the goal of building safer, healthier, more equitable communities for everyone.

Past recipients include the City of Los Angeles and L.A. Unified School District; New York City and its Vision Zero Task Force; the City of Fremont, CA; the City of Seattle and Seattle Public Schools and the City of Lincoln, NE.

To learn more about the U.S. Award, visit: www.visionzeroforyouth.org/awards/us.



ARLINGTON COUNTY, VIRGINIA, is a very active community, with many schools reporting over 50 percent of their students walking to school. Students from two schools can regularly be seen bicycling to school to upbeat music as part of bike buses. Providing a safe environment for students and their families has been a foundation of the work of **Arlington Vision Zero** in collaboration with the Arlington Public Schools.

Work to prioritize safe walking and biking for youth includes a wide range of traffic calming strategies such as 20 mph slow zones near schools (applicable all day, every day of the year); school zone speed cameras; **school zone** infrastructure audits and retrofits; and **quick-build** and pilot safety projects. The County's data-driven prioritization process emphasizes equity areas and school zones when evaluating candidate safety improvements. All this was possible because addressing the needs of youth is a priority in the County's **Vision Zero Action Plan**.

In 2024, Arlington County and the Arlington Public Schools received the National Center for Safe Routes to School's Vision Zero for Youth U.S. Leadership Award in recognition of their bold steps to reach zero transportation-related serious injuries or deaths in their community by 2030 and taking specific steps focused on youth.

"We really value being a safe walkable and bikeable place. We have calibrated Vision Zero in everything we do from street design, public transit to intermodal

connectivity," said Takis Karantonis, Vice-chair, Arlington County Board.

David Priddy, School Board Vice-Chair, Arlington Public Schools, added, "I am proud of our commitment and collaboration to eliminate severe injuries and fatalities among our children and adolescents. We don't have policies and projects. We have lifelines safeguarding the future of every child who walks or pedals to school."

Vision Zero's focus on youth

The Vision Zero Program is housed within the Arlington County Department of Environmental Services, which includes the Division of Transportation Services. This Division is responsible for transportation planning, engineering, operations, and coordination services. The Vision Zero Action Plan, adopted in 2021, specifically outlines action items to address safety around schools through policy changes, infrastructure improvements, and enhanced engagement and education.

The following action items related to schools are included in the plan:

- Refine and implement school zone guidelines to establish consistent signage, signage placement, speed limit reductions, and pavement markings in school areas
- Provide transportation education and support to students and teachers
- Review crossing guard location standards and apply a prioritized ranking
- Implement speed cameras in school zones
- Enhance transportation safety around schools by conducting school zone or intersection audits
- Share safety information and host engagement programs with school organizations and communities so that they can help foster a community culture of safety and increase inclusivity

School slow zones

A school slow zone is a permanent 20 mph speed limit on a neighborhood street within 600 feet of a key access point to a school. Speed limit signs introduce the presence of a slow zone which includes school crossing warning signs, high-visibility crosswalks, school speed limit signs, and speed limit pavement markings. Speed limits in these permanent school slow zones are enforceable around the clock and every day, whether school is in session or not.

The introduction of the 20 mph school slow zones required a change in the County's code and launched initially as a demonstration project. After installing the first school slow zones at 13 schools, the County collected community feedback that indicated that many people felt safer walking, biking, and driving because of the new zones. Before/after speed data showed that some sites experienced speed reductions. Based on the positive impacts of the demonstrations, the County moved forward with implementation of 20 mph school slow zones at all other schools in Arlington. The installation process for the school slow zones involved an audit of each school zone and detailed plans to update each school zone to meet the County's [school zone guidelines](#) (which were updated in 2022 to include the 20 mph school slow zone recommendations). Later, 20 mph school slow zone sites that did not see reductions were considered for speed humps through [a safety pilot project](#).



School zone speed safety cameras

Arterial roadways adjacent to schools use flashing school beacons to denote 20 mph speed limits. In contrast to the 20 mph school slow zones on local roads that are enforceable all day, the school zones denoted with flashing beacons are only enforceable during major school arrival and dismissal hours. These arterial school zones were all updated during the school zone review and audit process to add the 20 mph school slow zones. To address speeding concerns along these corridors, the County is launching a school zone speed safety camera program in fall 2024.

Speed safety cameras are a newly available safety tool as permitted through Virginia state legislation in 2022. The adoption of this policy in Arlington involved an update to the County Code and then procurement for a third-party vendor to operate the camera system under the direction and review of the Arlington Police Department. The Vision Zero team supports the speed safety camera program by analyzing crash data, operational information, and equity metrics in school zones to help prioritize camera placement in areas with safety needs.

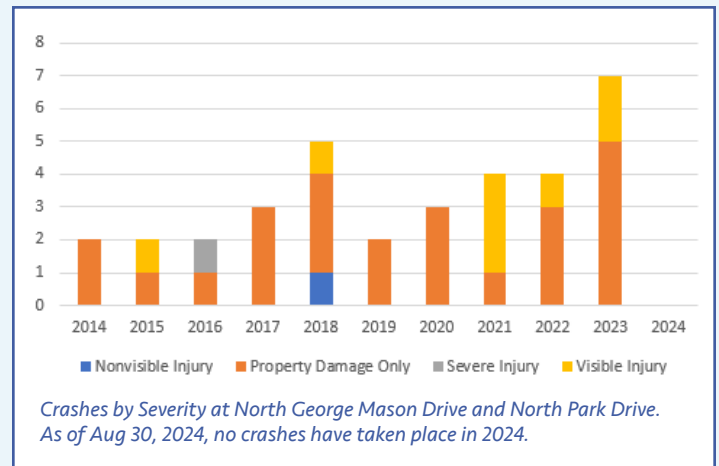
Arlington's school zone speed safety camera program will be a semiannual rotational program to ensure countywide coverage and that the cameras maintain effectiveness as a safety tool.



Students, families and other community members crossing from Barrett Elementary School. Source: Nancy Pullen-Seufert

BARRETT ELEMENTARY SCHOOL: SLOW ZONES, RETROFIT PROJECTS, AND QUICK-BUILDS ALL IN ONE SPOT

This school is an excellent example of Vision Zero activities coming together to improve safe access to school. Barrett Elementary sits at the corner of an arterial and a residential street. Many students live behind the school and others live across the arterial. A 20 mph slow school zone was established on all local/neighborhood roads within 600 feet of a school access point. When updating the school zone to include the 20 mph slow zone on adjacent neighborhood streets, the County added high-visibility crosswalks, school crossing signage, and school zone pavement markings. This school also has flashing school beacons on two adjacent arterial streets, which will be viable school zone speed safety camera placement locations once the program launches in 2024. A set of rectangular rapid flashing beacons (RRFBs) were installed at North Park Drive and North George Mason Drive in 2020 to provide access across one of the main arterials to access the school and nearby community center. While the RRFBs improved pedestrian crossings, the County programmed a traffic signal for the intersection to



address a recurring vehicle-to-vehicle crash pattern. While the signal project was being planned and built, a tactical quick-build project was installed at North Park and North George Mason Drives in 2023 to provide an interim solution to the safety issue. Bollards and pavement markings were used to restrict left turns and through movements from North Park Drive. As of August 30, 2024, no crashes occurred at this location in 2024.

Changing the built environment

The Vision Zero program has provided physical changes near schools via three safety initiatives:

The **school zone retrofit program**

began with the creation of Arlington's new **school zone guidelines**, which expanded school zones to include permanent 20 mph speed limits on all surrounding neighborhood roads, as well as updated signage and pavement marking standards for a school zone. Following the establishment of the guidelines, Arlington audited each school zone in collaboration with staff members at the schools to coordinate school zone updates based on their experiences. After the audits and coordination, Arlington incorporated the 20 mph school slow zones, updated school signage, added high-visibility pavement markings, improved crossing signage, and add other tactical safety projects. All 46 schools (private and public) in the County were updated between 2022 and 2024.

Quick-build safety projects deliver tactical or small-scale construction safety improvements. These projects are identified through safety analyses such as **crash hot spot** reviews, **High-Injury Network audits**, systemic safety reviews, community submissions from the **Report A Problem tool**, or coordination with Arlington Public Schools. Projects are reviewed and prioritized based on crash history and speeding issues, as well as whether the locations are in an Equity Emphasis Area and/or in a school zone. Many of the quick-build projects are identified by school staff. These small-scale construction projects have a quick turnaround and typically address pedestrian and cyclist connections. Over a two-year period, 11

of 32 Vision Zero quick-build projects were in or near school zones.

For example, a crossing at Cardinal Elementary School was identified for a quick-build project because it is on a main walking and biking route to the new elementary school and did not have a crosswalk. Arlington installed a midblock crossing, extended the median into the crosswalk, and added curb extensions to ensure visibility of pedestrians and bicyclists waiting to use the crosswalk. Existing bike lanes across the intersection were marked to ensure awareness and continuity of the bike lane across the intersection.

The **pilot safety projects program** implements temporary, test-case safety tools. Out of ten pilots since the program started, seven have addressed safety near schools—all identified through the school community. During these pilots, the County collects data to quantify the safety impacts of the pilot and hosts engagement opportunities to collect feedback from surrounding community members as a means of qualitative data for before/after assessment. Pilot engagements typically see hundreds of community responses.

For example, at Oakridge Elementary School a school safety pilot temporarily closed adjacent streets during arrival and dismissal times. Arlington designed the road closure in response to school staff concerns for multimodal safety with heavy school bus operations. This pilot improved safety and access for pedestrians, bicyclists, and bus riders. The County worked with school staff to send messaging, collect community feedback, and identify a permanent solution for safe pick-up and drop-off.



*Quick-build improvements near Cardinal Elementary School.
Source: Arlington County government*

Focus on underserved communities

The Vision Zero program prioritizes designated **Equity Emphasis Areas**, areas with higher percentages of Black, Indigenous, and people of color or low-income community members. Projects such as the school zone retrofits are a systemic improvement effort to ensure that all schools have the standard features recommended in County guidelines and to address previously underserved areas. Staff routinely attend community events, distribute safety-related resources, and ask for community member input, especially in Equity Emphasis Areas.

Integrating accessibility

Accessibility is a priority for all Arlington programs and projects. Some examples include:

- The school zone retrofit program included review of all crossings and walking paths and identification of needed accessibility improvements. Areas that lack accessible connections were elevated for construction.
- Quick-build safety projects typically involve ramp improvements, widening and improving sidewalks, installation of RRFBs to improve pedestrian visibility (with auditory elements), and other accessibility considerations.
- All pilot projects include accessibility in their designs. For example, one of the pilots near an elementary and middle school applied the installation of a temporary bus loading platform to ensure accessible loading at the bus stop while building tactical curb extensions that reduce walking distances.
- Arlington has a sidewalk shaving program that corrects uneven concrete along sidewalks throughout the County to ensure smooth/accessible paths along arterial and neighborhood streets including school zones.
- The Vision Zero program and the County work with Arlington's Disability Advisory Committee, Commission on Aging, and other groups to learn about the individual needs of people with different levels of ability, which is translated into their projects.

Measuring success

A key component of Arlington's success is their before/after evaluations to assess the efficacy of new strategies or infrastructure. Examples include:

- After the installation of a pilot roundabout, vehicle speeds approaching the intersection (a critical school crossing) reduced by 10 mph.
- After installing the first 20 mph school slow zones at 13 schools, community feedback indicated that many people felt safer walking, biking, and driving because of the new zones. Before/after speed data showed that some sites experienced significant speed reductions. Sites that did not see reductions were considered for **speed humps**.
- After a safety pilot was installed repurposing a vehicle travel lane to a temporary walking path buffer area for students traveling to and from school along a busy arterial corridor, the County collected and **analyzed data** on bike and pedestrian usage, vehicle speeds, vehicle wait times, and other behavioral factors. While the pilot was helpful in increasing walking space, observations of erratic turning movements and driver behavior due to increased wait times outweighed the safety benefits of the pilot. This helpful lesson led to further evaluation and assessment of improvement options for the corridor.

To measure progress towards its Vision Zero safety goals, Arlington regularly tracks pedestrian and bicyclist crashes, as well as crashes and factors by age group. From 2018 to 2023, six percent of severe or fatal crashes involved young people (18 years or younger).

To measure progress towards a community safety culture, Arlington hosts an Annual Benchmark Safety Survey, which asks questions about safety perceptions. The annual engagement effort includes pop-up events, which include at least one event at a local high school or teen job fair to help involve youth. In 2023, they received more than 100 responses from young members of the community (approximately 10 percent of responses). The top safety concerns cited over the past two years were speeding, distraction, and drivers not following laws and signals.

Partnerships

The partnership of Arlington Vision Zero and the Arlington Public Schools is key to many of the successes. They meet monthly to collaborate on needs— anything from intersection needs to countywide policies on crossing guard placement prioritization. The County's collaboration with these partners does not simply extend from the Vision Zero team alone but from all County staff, from police to public transit.



Child rides scooter in 20 mph school zone.
Source: Arlington County government

The Vision Zero team also meets regularly with the Arlington Roadway Safety Club at Washington-Liberty High School and regularly engages with the County's committees, commissions, business community, and pedestrian and bike safety advocates through the Vision Zero External Stakeholders Group. They also collaborate with the Northern Virginia chapter of Families for Safe Streets.

Because Arlington's Vision Zero policy was approved by the County Board, they had support from elected officials from the start. They also support the development of the annual legislative package for the County Board to review and make recommendations to representatives at the Virginia General Assembly each year, which demonstrates collaboration with elected officials and County leadership to move the needle on key safety policy issues.

Accomplishments with an eye to the future

Arlington's Vision Zero priority for youth has sustainability built in. The 20 mph zones and the school zone speed camera program are long-term speed management solutions. Using transparent accessibility data to prioritize safety projects near schools and in equity areas ensures equitable distribution of resources to places most in need of safety improvements. The use of pilot projects near schools allows Arlington to install projects quickly rather than wait for capital funding. These pilots provide room for school communities to collaborate and ensure that safety solutions are sustainable. The school zone retrofits project has refreshed and expanded every school zone in the County to ensure that drivers go slow and look for pedestrians and bikes—and not just during school hours. Arlington transformed the infrastructure of the community to highlight multimodal school travel and transformed the culture for safe walking and biking starting at a young age.



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