

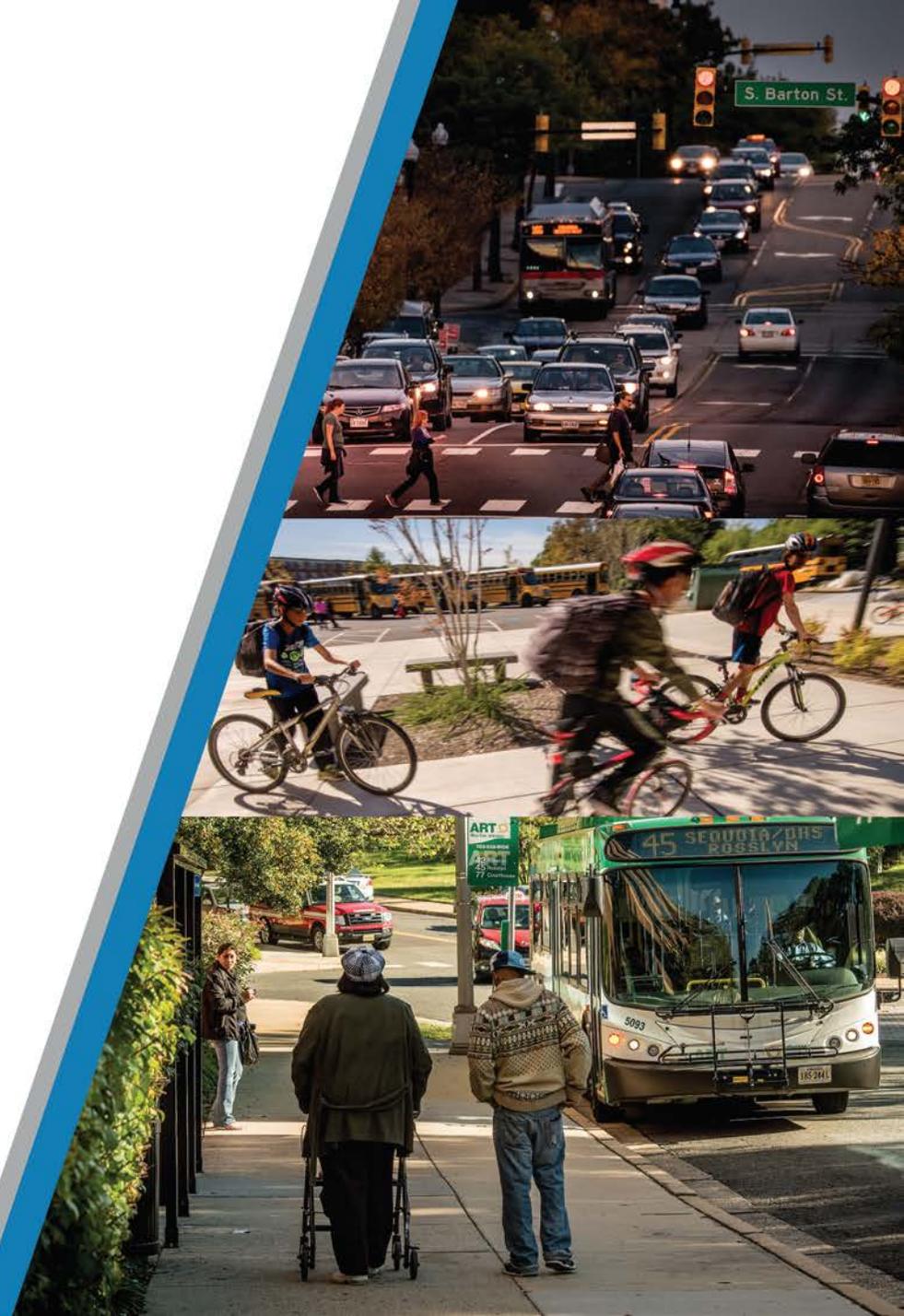
# VISION ZERO

ARLINGTON COUNTY

*Community Planning Association of Southwest Idaho (COMPASS) Education Series:*

## Creating a Safe Multimodal Environment: From Analysis to Implementation

*August 2023*



# Agenda

- Introductions
  - Arlington County, VA
  - Vision Zero & safety
  - Balancing multimodal needs
- Safety Analysis
  - Spot-based
  - Corridor-based
  - Systemic
- Safety Projects
  - Tactical projects
  - Quick-build projects
  - Pilot projects
  - Capital projects
- Integrating Safety into your Program
- Wrap Up

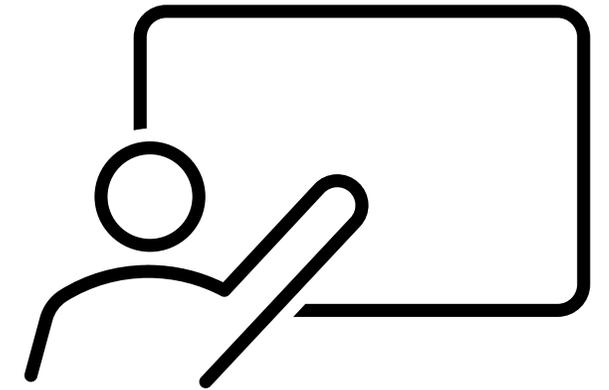


# Introductions

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Transportation Engineering & Operations  
Bureau Chief at Arlington County

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# Arlington County, Virginia

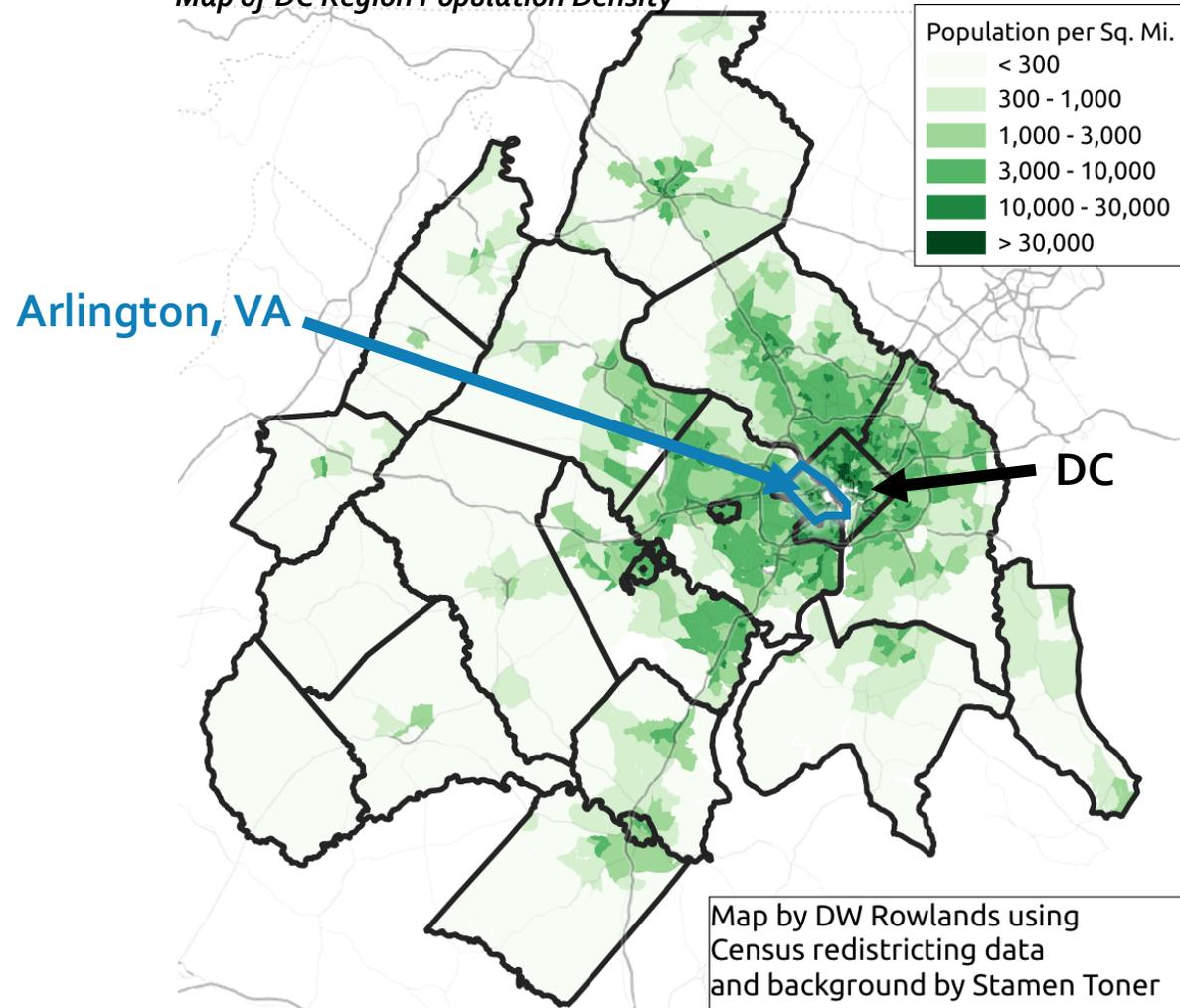
Arlington, VA is a semi-urban community located just southwest of Washington, DC

## 2023 Facts:

- Population: 237,300
- Housing Units: 121,200
- Jobs: 214,600
- Land Area: 26.3 Sq mi



Map of DC Region Population Density



# Arlington County & Vision Zero

In July 2019, the County Board adopted [a resolution](#) committing to Vision Zero and requesting that staff create a Vision Zero Action Plan.

In May 2021, the County Board adopted a Five-Year Action Plan to get us to Vision Zero by 2030. The Action Plan includes:

- An assessment of existing safety needs/areas
- Goals for a safer transportation system
- A list of action items to achieve each safety goal
- A plan for tracking and reporting our progress

# 2030



# What is Vision Zero?

TRADITIONAL APPROACH	VISION ZERO
Traffic deaths are <b>INEVITABLE</b>	Traffic deaths are <b>PREVENTABLE</b>
<b>PERFECT</b> human behavior	Integrate <b>HUMAN FAILING</b> in approach
Prevent <b>COLLISIONS</b>	Prevent <b>FATAL AND SEVERE CRASHES</b>
<b>INDIVIDUAL</b> responsibility	<b>SYSTEMS</b> approach
Saving lives is <b>EXPENSIVE</b>	Saving lives is <b>NOT EXPENSIVE</b>

Vision Zero is:

**"a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all."**

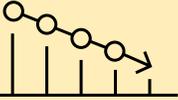
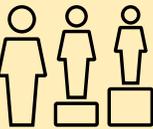
- Vision Zero Network

[visionzeronetwork.org/resources/vision-zero-cities/](https://visionzeronetwork.org/resources/vision-zero-cities/)

- Focus on preventing serious and fatal crashes.
- See a safety issue in one place and fix everywhere like it (aka – safe systems approach).
- Triage safety issues so that we address our biggest problems first.
- Ensure equity in access to safe transportation.



# Community-Identified Vision Zero Goals

Our Vision Zero Program Will Be...	Community Action Plan Goals
 <p><b>Multimodal</b></p>	<p><b>Ensure safe transportation, no matter how you get around.</b></p>
 <p><b>Safety-First</b></p>	<p><b>Put safety first on County projects and policies - big or small.</b></p>
 <p><b>Transparent &amp; Accountable</b></p>	<p><b>Be transparent, responsive, and accountable on Vision Zero progress and outcomes.</b></p>
 <p><b>Data-Driven</b></p>	<p><b>Apply timely data to take action on safety.</b></p>
 <p><b>Collaborative</b></p>	<p><b>Promote a culture of transportation safety for everyone.</b></p>
 <p><b>Equitable</b></p>	<p><b>Prioritize transportation safety investments equitably in the most vulnerable communities.</b></p>



# Vision Zero Initiatives: Responsive vs. Proactive

## Responsive

### Critical Crash Follow Up

Collaborate with an interdepartmental team to identify immediate action to address severe & fatal crash locations (and identify next steps to address similar locations to prevent crashes).

### Hot Spot Program

Identify crash hot spots using crash & near miss data and implement safety improvements through quick-build projects.

### High-Injury Network Audits

Conduct walking assessments of HIN corridors to identify quick fix/build improvements and ensure future planning efforts consider large scale corridor needs.

### Community Report-A-Problem

Respond to safety concerns reported by community members – typically involves an investigation, data collection, and implementation of recommendations.

## Proactive

### Systemic Improvements

Identify a safety issue in one location, we actively identify and improve other similar locations to prevent crashes.

### Equity Analysis

Perform an analysis of transportation safety issues countywide to identify and address areas or people disproportionately affected by crashes.

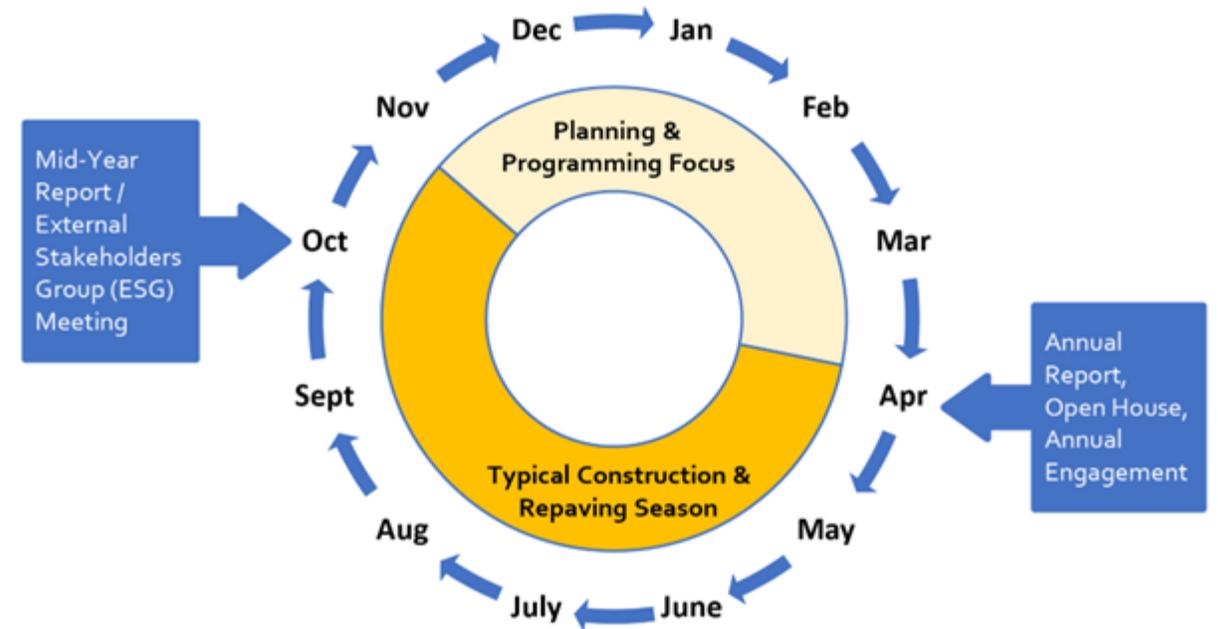
### Community Education

Promote Vision Zero and transportation safety messaging through targeted advertisements and education materials throughout the community.



# Vision Zero Annual Cycle

- **Late fall through early spring:** Planning and programming.
- **Spring through fall:** Implementation of projects through construction and repaving.
- **April:** Release of annual Vision Zero report covering activities and metrics from the previous calendar year, program open house, and safety feedback engagement.
- **October:** Release of the mid-year Vision Zero report covering activities within the calendar year to-date in October, annual meeting of the Vision Zero External Stakeholders Group.
- **Year-round:** Programmatic safety work, such as the crash hot spots program, High-Injury Network safety audits, critical crash reviews, community request response, collaboration, and communication.
- **Every two years:** Hot Spots analysis
- **Every three years:** High-Injury Network update



#### Year-Round Activities:

- ✓ Crash, HIN, and Hot Spot Analysis
- ✓ Community Reports Responses
- ✓ Collaboration and Communication

#### Multi-Year Activities:

- ✓ HIN Update (every three years)
- ✓ Hot Spot Analysis (every 2 years)
- ✓ Action Plan Update (2025)

# Balancing Multimodal Needs

Vehicle Lanes + Bike Lanes + Bus Stops + Sidewalks + Curbside Loading + Trees + Lighting + Parking = *A whole lot* for one street



# Balancing Multimodal Needs

Vehicle Lanes + Bike Lanes + Bus Stops + Sidewalks + Curbside Loading + Trees + Lighting + Parking = *A whole lot* for one street

**With a Vision Zero policy, we put safety first,  
which means protecting vulnerable users.**



# Data-Driven Safety Analysis

Let's look at Arlington's various data analysis programs and learn more about how each analysis initiative allows us to identify different safety needs .



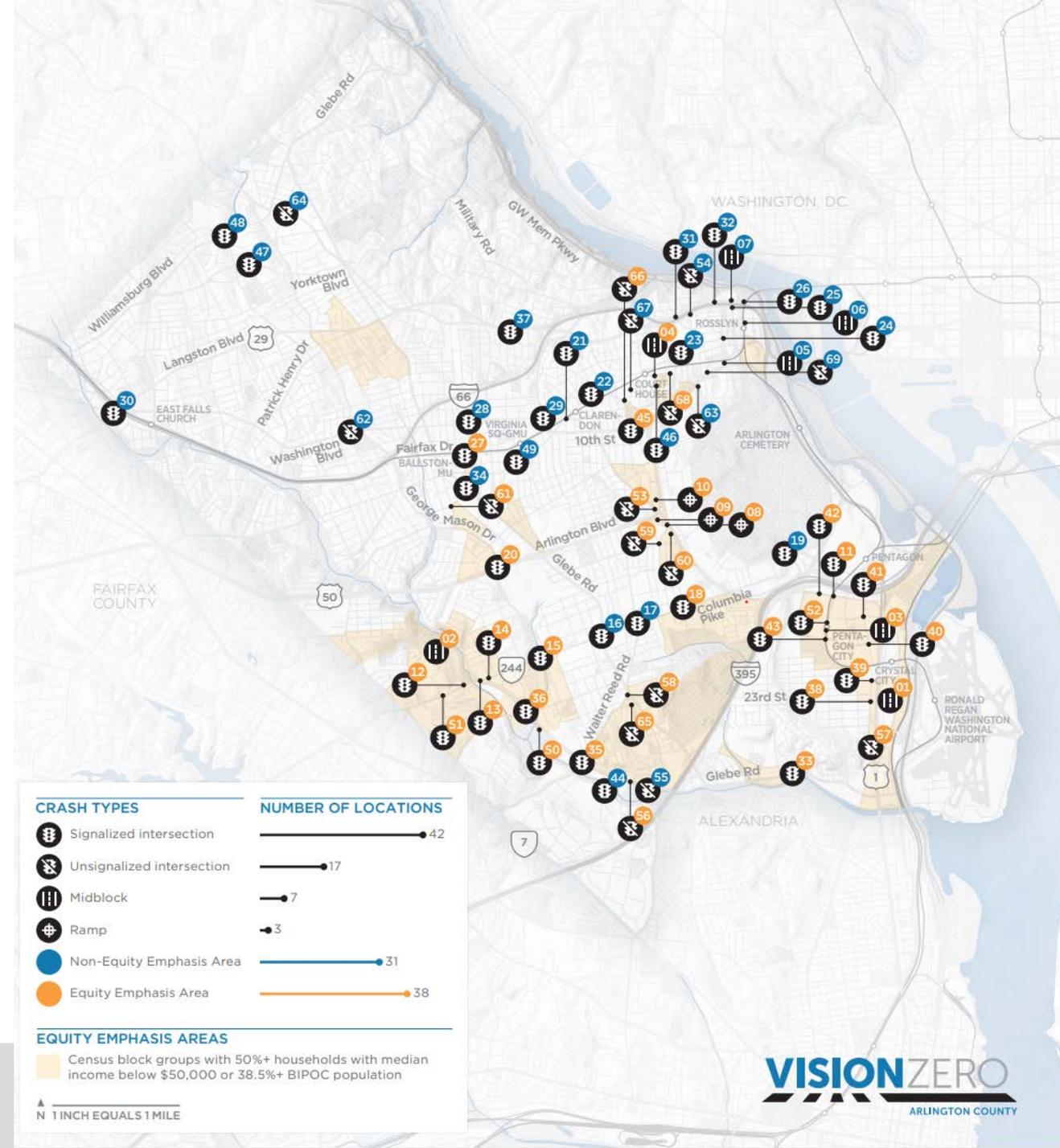
# Spot-Based: Crash Hot Spots

## Identifying Hot Spots

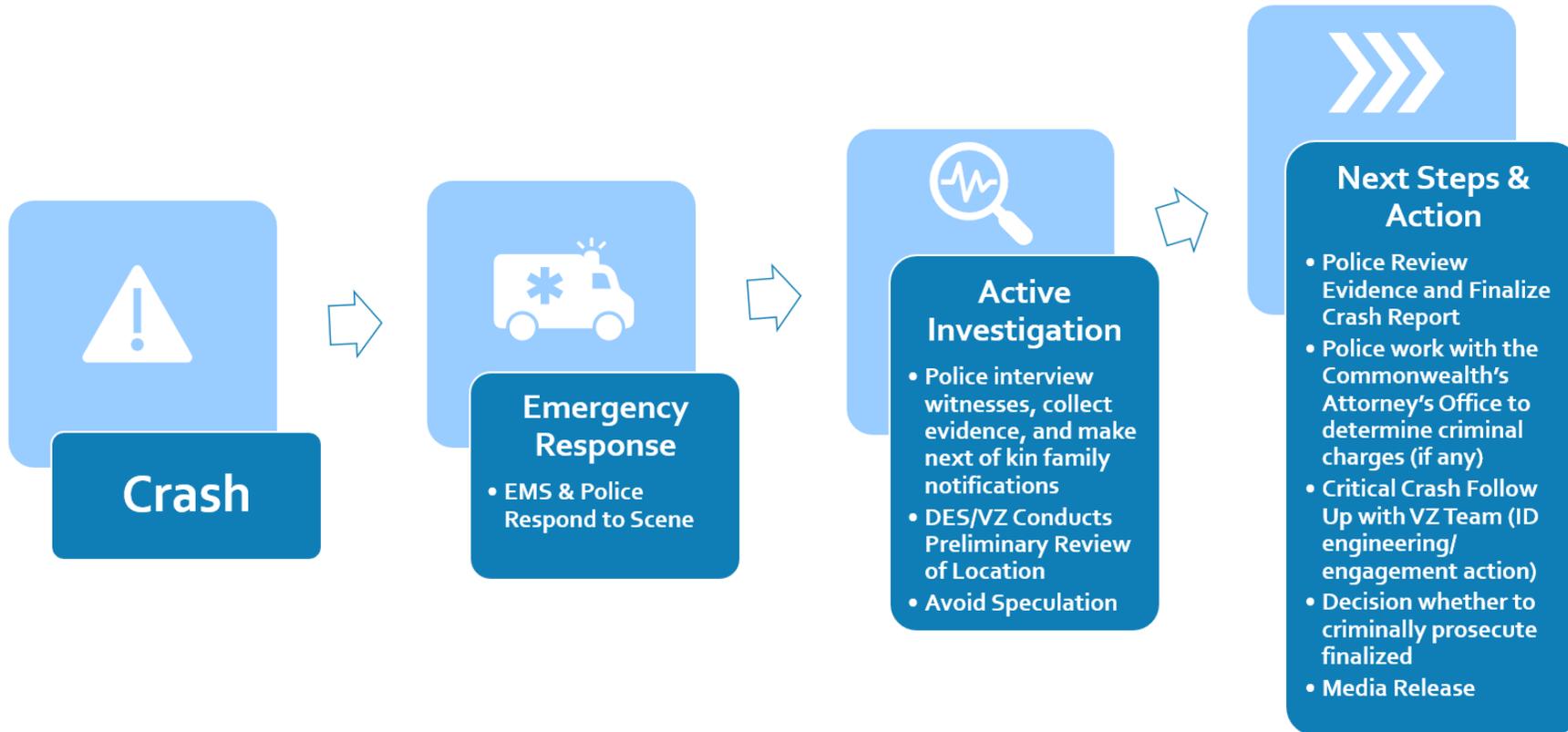
- Identified for concentrations of each vehicle, bicycle, pedestrian crashes
- Calculated using crash, volume, hard-braking, and infrastructure datasets
- Weighted crashes based on severity (fatal crashes having the highest weight, hard-braking incidents having the lowest)
- Identified county-wide and specifically within Equity Emphasis Areas (block groups identified because of lower income or higher BIPOC populations)
- Conducted every two years

## Addressing Safety at Each Location

- Reviewed in detail to identify safety issues and potential improvements
- Monitored once improvements are in place to ensure safety needs were addressed
- Reassessed if they reoccur on the hot spot list



# Spot-Based: Critical Crash Follow Up



- Each severe or fatal injury (critical) crash is reviewed and evaluated to identify potential quick-response safety needs.
- Police, engineers, planners, and other interdisciplinary representatives participate in a quarterly review of all critical crashes.
- The reviews result in action items (engineering, education, or enforcement based).

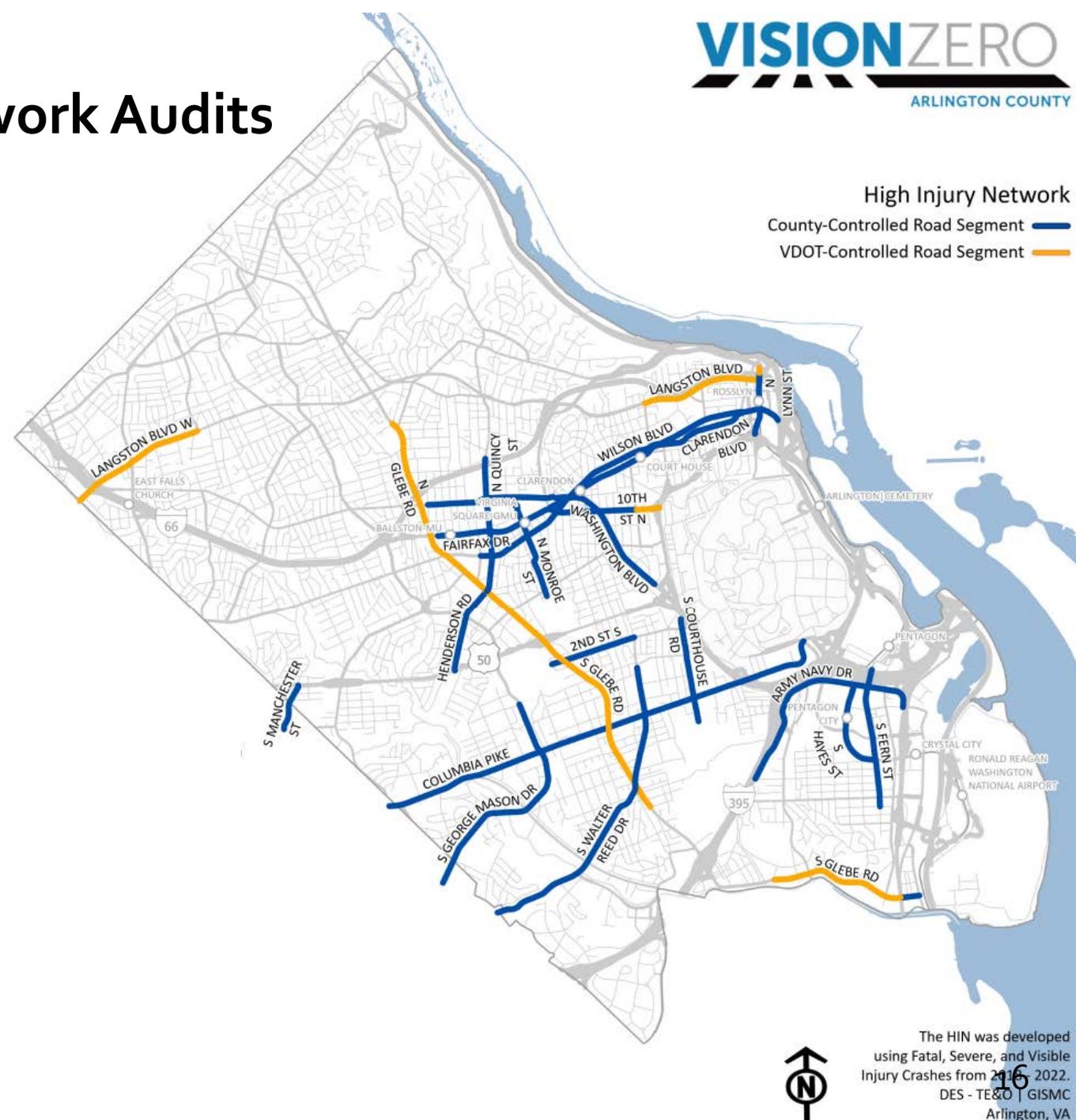
# Corridor-Based: High-Injury Network Audits

## Identifying High-Injury Network Corridors

- Identifies street segments with a relatively high number of serious injury and fatal crashes
- Covers 52% of all fatal, severe, or injury crashes in Arlington on only 6.8% of all roadways.
- Calculated using crash (injury-only) and volume datasets
- Weighted crashes based on severity (fatal crashes having the highest weight, injury crashes having the lowest weight)
- Updated every three years

## Addressing Safety on Corridors

- Allows for staff to prioritize analysis and resources on these corridors
- Safety audits conducted on a rolling basis to address immediate safety needs (to be addressed short-term) and long-term safety needs (to be programmed into capital project budgeting)



# Corridor-Based: Repaving Plans

## Identifying Repaving Plans

- The annual repaving program identifies roads that need to be resurfaced.
- When a street is being repaved, staff will conduct a crash analysis to identify potential safety issues.
- Staff have established an annual public engagement process to communicate and obtain input for repaving projects.

## Addressing safety through repavement plans may include:

- High-Visibility Crosswalks
- Rectangular Rapid Flashing Beacons (RRFBs)
- Bump outs
- Medians
- Buffered or Protected Bike Lanes



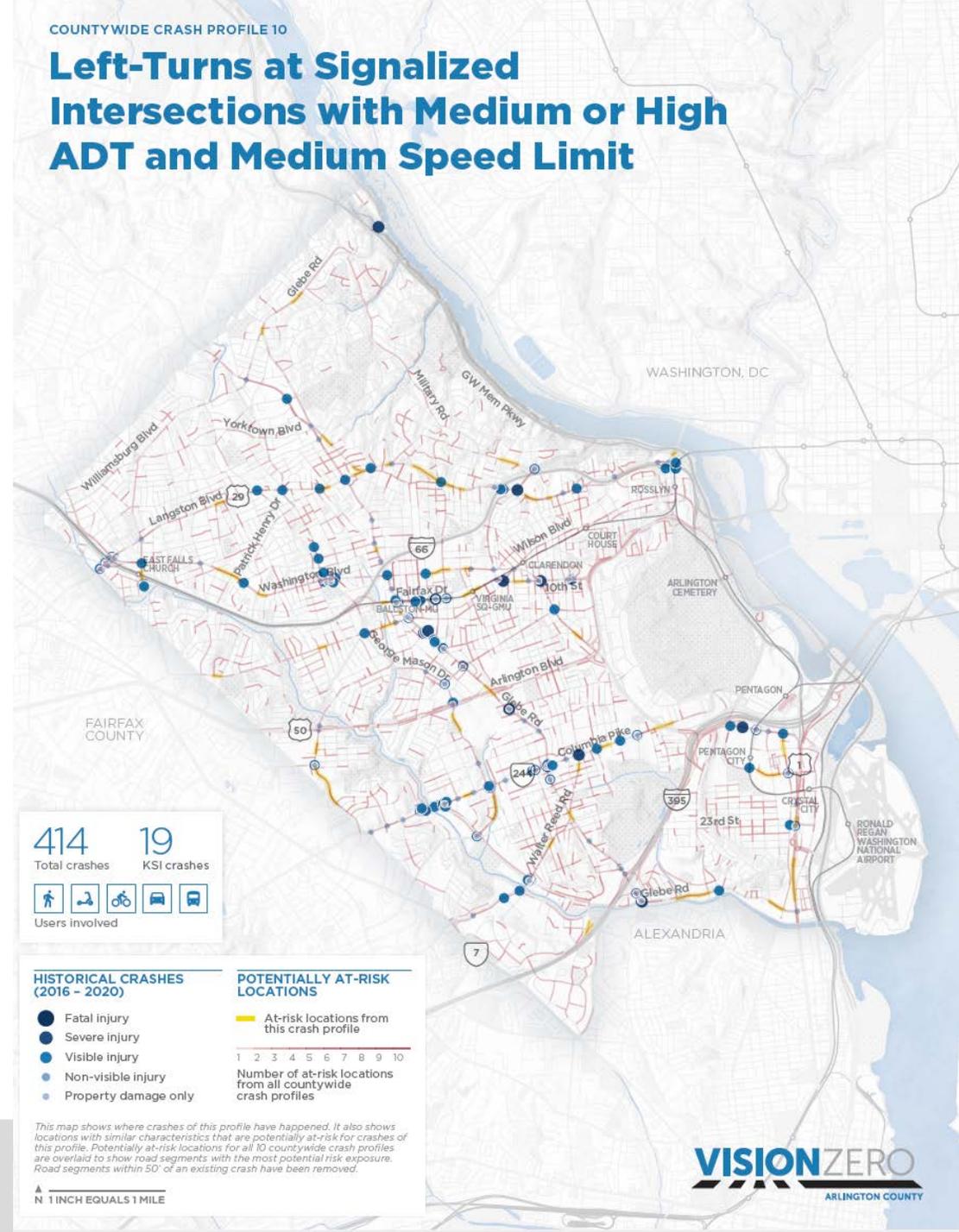


# Systemic: Spatial Analysis

- Identifies combinations of risk factors from crashes to then proactively address these risk factors and prevent crashes
- AKA "See a problem in one place, fix it in all other places"
- Variables analyzed:
  - Travel mode (vehicle, pedestrian, bike)
  - Vehicle volumes
  - Speed limits
  - Pre-crash movements (ex. making left turn, making right turn, proceeding straight, etc.)
  - Crash factors (ex. alcohol, senior)
  - Crash types (ex. angle, fixed object, rear end, sideswipe, etc.)
  - Nearby land use
  - Equity emphasis areas

## Addressing safety through spatial analysis:

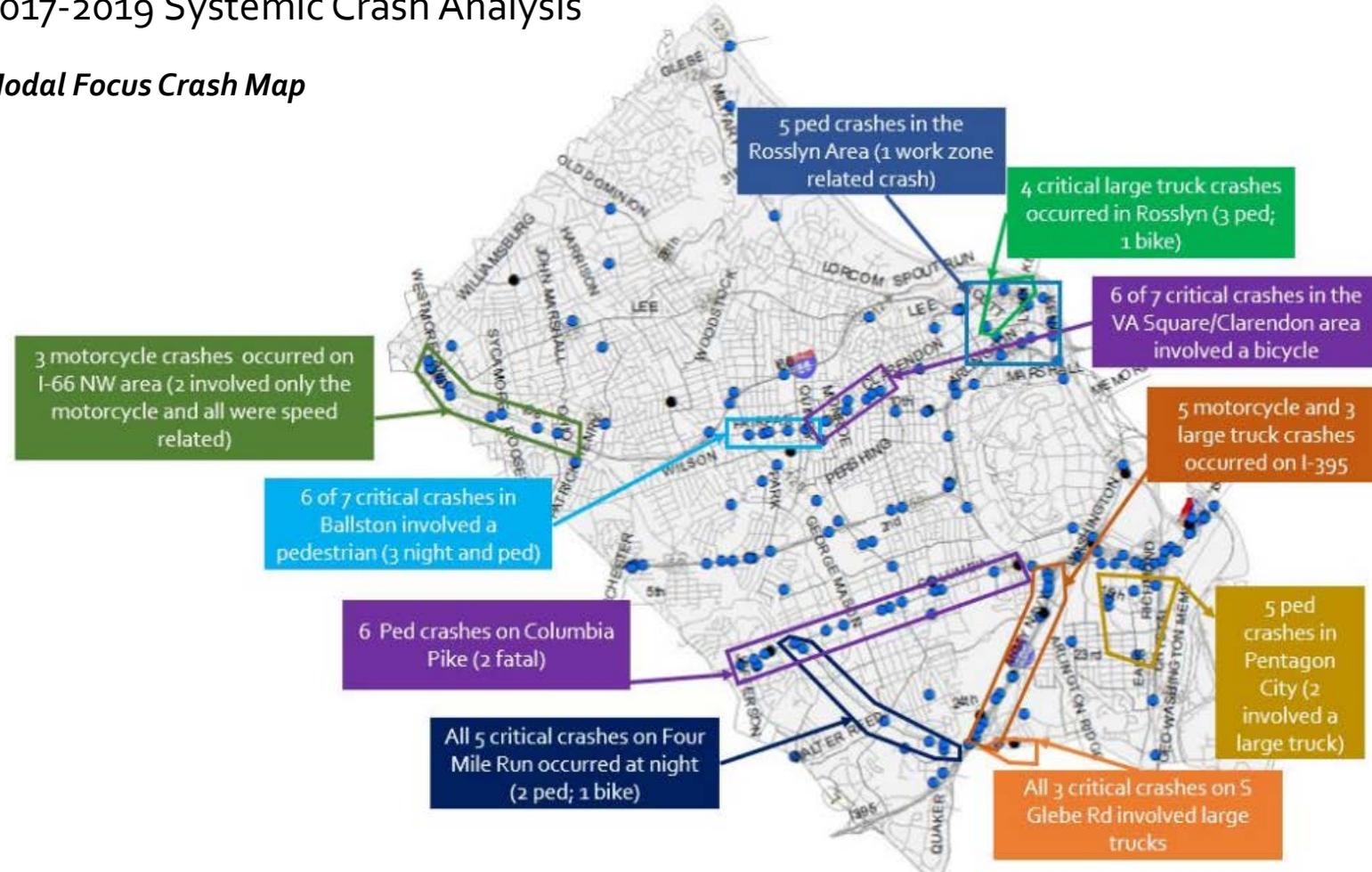
- Inventory and assess conditions on all segments to ensure that they meet current County standards for signage, pavement markings, and pedestrian ramps.
- Assess the potential for further safety measures from Arlington's Multimodal Safety Engineering Toolbox.



# Systemic: Countywide Trend Analysis

## 2017-2019 Systemic Crash Analysis

### Modal Focus Crash Map



### Critical Crash Trends Analysis

- An annual review of commonalities across critical (serious or fatal) crash characteristics using a multi-year period of analysis
  - Common behaviors
  - Patterns for crash modes or crash types
- Identifies common factors involved in critical crashes to help focus engineering, education and outreach efforts

### Annual Crash Analysis

- An annual comprehensive crash analysis that identifies short and long-term crash issues and patterns

# Safety Projects

Safety projects, big or small, all have significant safety benefits.

Some are temporary and some are permanent.



# Tactical Safety Projects

- Typically includes signage, markings, flex posts, and/or other temporary materials
- Cost is low and typically funded through general operating, repaving, or Vision Zero funds
- Can be implemented within a year.
- Community engagement is typically low/“communicate” level
- Provides an opportunity to adjust the design based on real world operating conditions.



# Tactical Safety Projects

What can you do by painting the street?



# What is Tactical Design?



Transforming  
auto-  
oriented  
roadways...

# What is Tactical Design?



...by  
repurposing  
space for  
other modes,  
as a short-  
term  
means...

# What is Tactical Design?



...through a  
phased  
approach...



# What is Tactical Design?



...to achieve  
long-term  
goals.

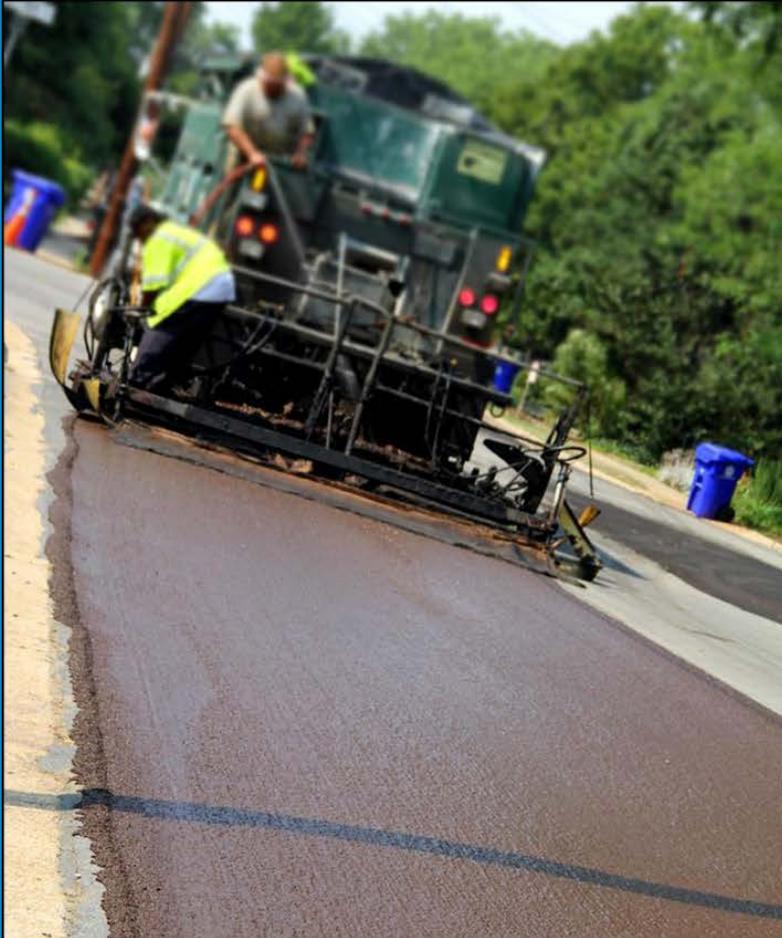
# What is Tactical Design?



Tactical design allows concepts to be tested to see if concepts will work

# Achieving Success with Tactical Design

## Step 1



Find  
opportunities  
through  
routine  
maintenance

# Achieving Success with Tactical Design

Step 2



**Consider long-term design**

# Achieving Success with Tactical Design

## Step 3



Engage effectively

**ARLINGTON VIRGINIA**

### Exiting Driveways with Protected Bike Lanes

3 steps to safely leave driveways with protected bike lane

- Before crossing over sidewalks make sure there are no pedestrians coming.
- Stop at the curb to check for bicycles.
- Move out towards the edge of the parking lane to get a clear line of sight of both travel lanes before turning onto the roadway.

**Yield to Pedestrians**

**Yield to Bicyclists**

**Yield to Vehicles**

The diagrams illustrate three scenarios for yielding from a driveway. In the 'Yield to Pedestrians' diagram, a red car is at a driveway, and a red arrow points to a pedestrian crossing the street. In the 'Yield to Bicyclists' diagram, a red car is at a driveway, and a red arrow points to a bicyclist in the protected bike lane. In the 'Yield to Vehicles' diagram, a red car is at a driveway, and a red arrow points to a car in the travel lane.

# Achieving Success with Tactical Design

## Step 4

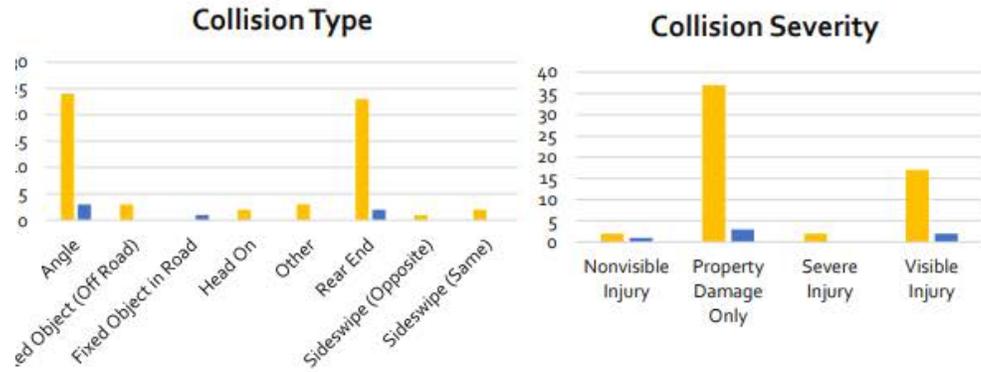


**Iterative  
implementation**

# Tactical Safety Project: Before/After

## Collisions Before and After: Richmond Hwy & N Marshall Dr

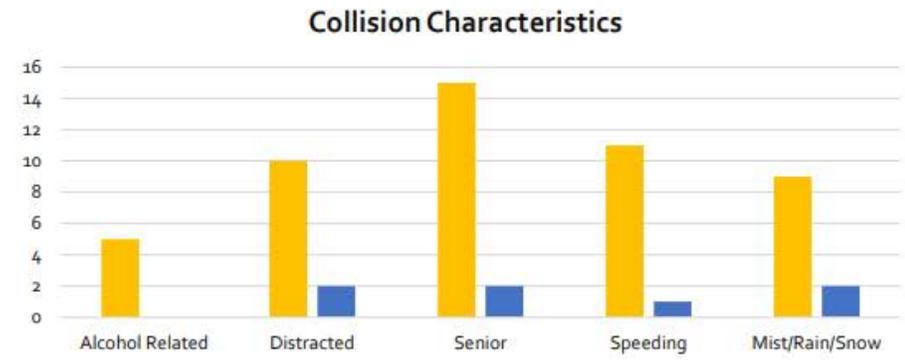
In 2020, the County installed safety modifications at the intersection of Richmond Hwy and N Marshall Dr, including signs to clarify turning movements for vehicles on Richmond Hwy. The average number of collisions per year decreased from 8.3 in 2014-2020 (before project) to 3 in 2021-2022 (after project).



### Tools Implemented



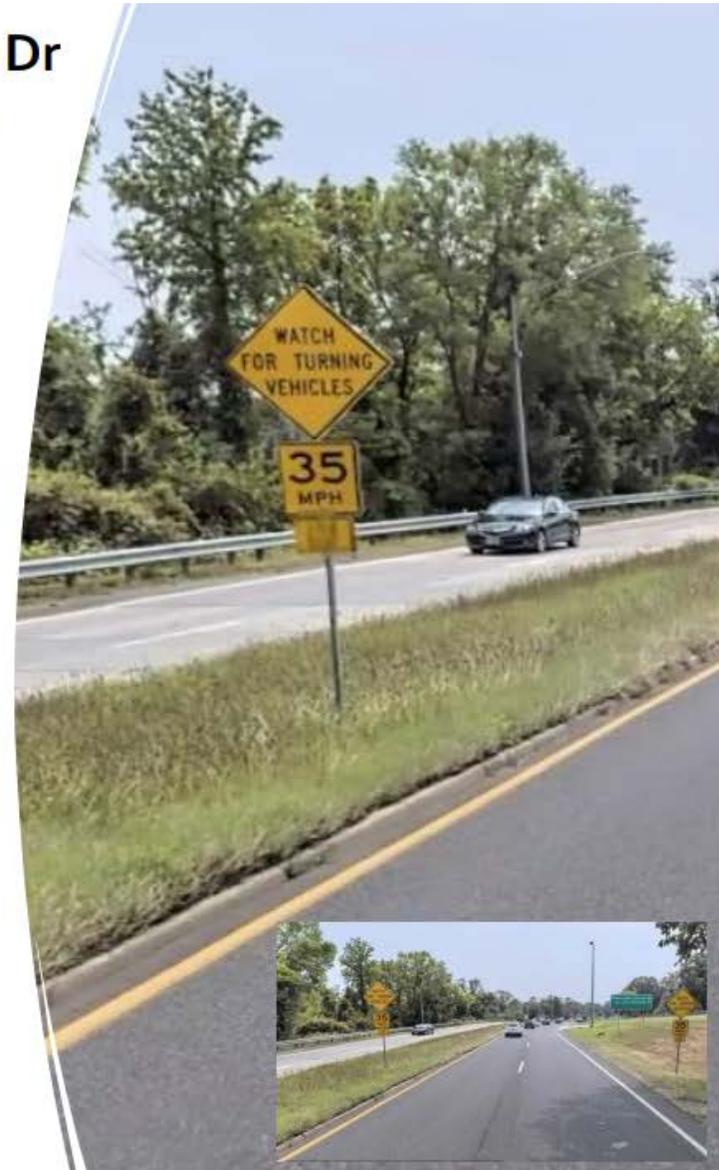
Inform road users of regulations and warnings to facilitate safe flow of all road users.



### Total Collisions



■ Before (2014 - 2020) ■ After (2021 - 2022)

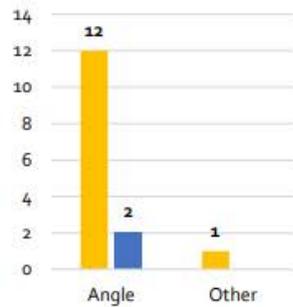


# Tactical Safety Project: Before/After

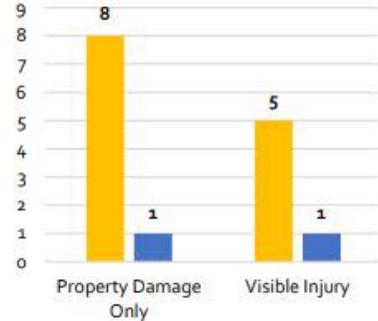
## Collisions Before and After: N Pershing Dr & N Irving St

In August 2017, the County installed an all-way stop at N Pershing Dr and N Irving St due to a high number of qualifying collisions within 12 months. **The average number of collisions per year decreased from 3.25 in 2014-2017 (before project) to .5 in 2018-2022 (after project).**

Types of Collisions



Severity of Collisions



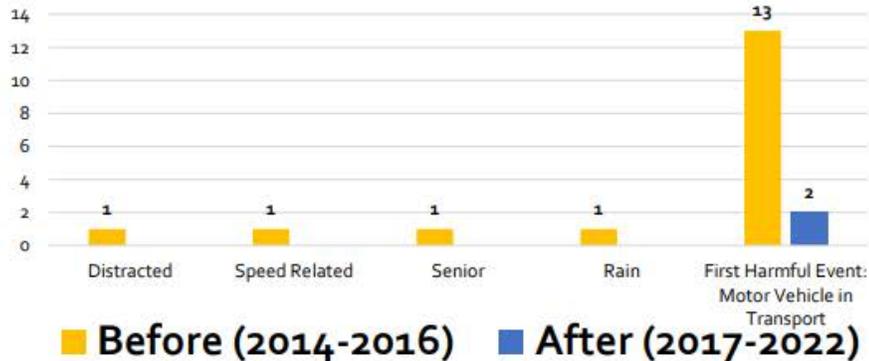
### Tools Implemented

Stop Sign Control

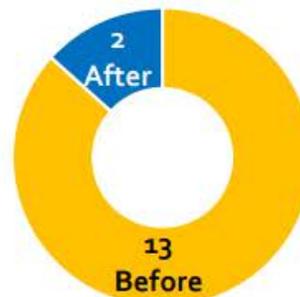


Indicate where traffic is required to stop (using MUTCD standards).

Collision Characteristics\*



Total Collisions





# Before/After: Systemic Evaluation of AWS Application

**All Way Stops 2018-2022 Crashes Before & After**

Crash Date: All | Crash Severity: All | Intersection: All | Civic Association: All

**24**

# of AWS Installs

**53**

Before AWS upgrade

Intersection	Upgrade Date	cgURL
N THOMAS ST & 4TH ST N	5/18/2018	
N PIERCE ST & 16TH ST N	3/29/2019	
N IRVING ST & 13TH ST N	4/18/2019	
16TH ST N & N JEFFERSON ST	10/25/2019	
17TH ST N & N STAFFORD ST	10/26/2019	
S WAYNE ST & 2ND ST S & S UHLE ST	11/15/2019	
S WAKEFIELD ST & 28TH RD S	11/22/2019	
11TH ST N & N KENSINGTON ST	12/13/2019	
N KENNEBEC ST & 11TH ST N	12/20/2019	
S HIGHLAND ST & 7TH ST S	5/12/2020	
S IRVING ST & 6TH ST S	5/19/2020	
17TH ST N & N OAK ST	7/9/2020	
KEY BLVD & N DANVILLE ST	9/3/2020	
N BARTON ST & FAIRFAX DR	9/21/2020	
S FOUR MILE RUN DR	10/22/2020	
N VERMONT ST & N UPSHUR ST	1/12/2021	
N LEXINGTON ST & 18TH ST N	4/20/2021	
22ND ST N & N ROOSEVELT ST	11/9/2021	
S ROLFE ST & 12TH ST S	6/17/2022	
11TH ST S & S EDGEWOOD ST	6/27/2022	
S WAKEFIELD ST & 36TH ST S	6/28/2022	
S CLARK ST & 26TH ST S	9/27/2022	

**6**

After AWS Upgrade

**AWS Upgrades by Year**

Year	Number of Upgrades
2018	1
2019	8
2020	6
2021	3
2022	6

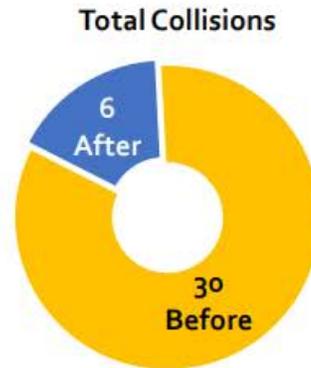
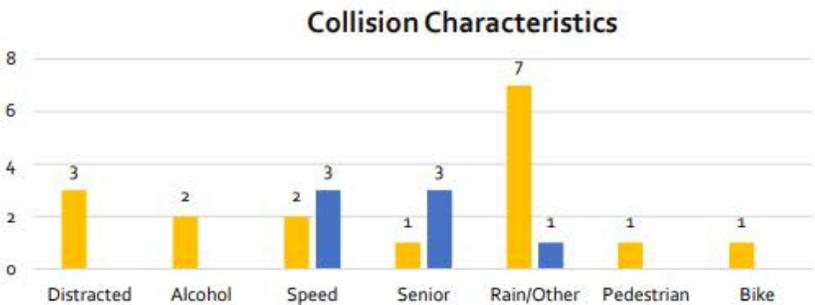
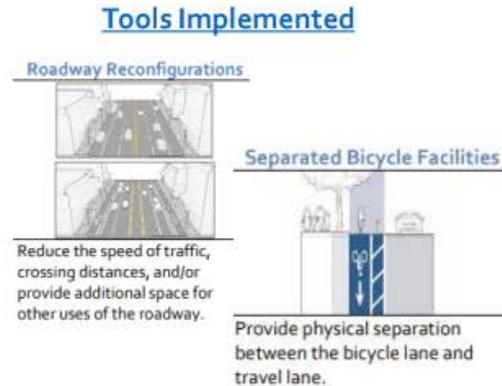
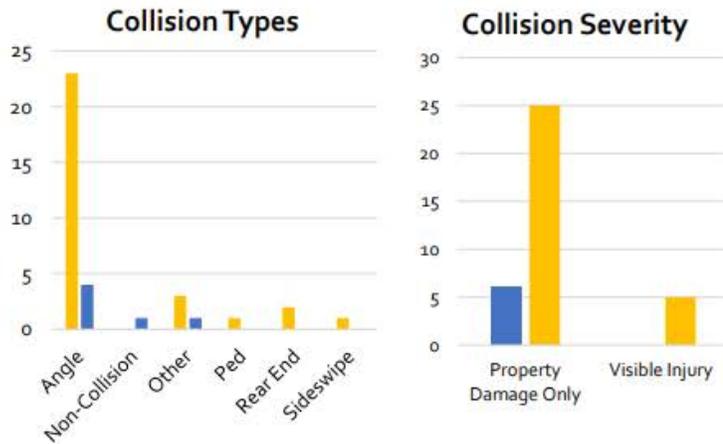
Crashes within 100' of an AWS Intersection



# Tactical Safety Project: Before/After

## Collisions Before and After: N Meade St & Arlington Blvd

In October 2020, the County installed [safety modifications](#) at the intersection of N Meade St and Arlington Blvd to remove the southbound turn lane and add a protected bike lane. **The average number of collisions per year decreased from 4.3 in 2014-2020 (before the project) to 3 in 2020-2022 (after the project).**



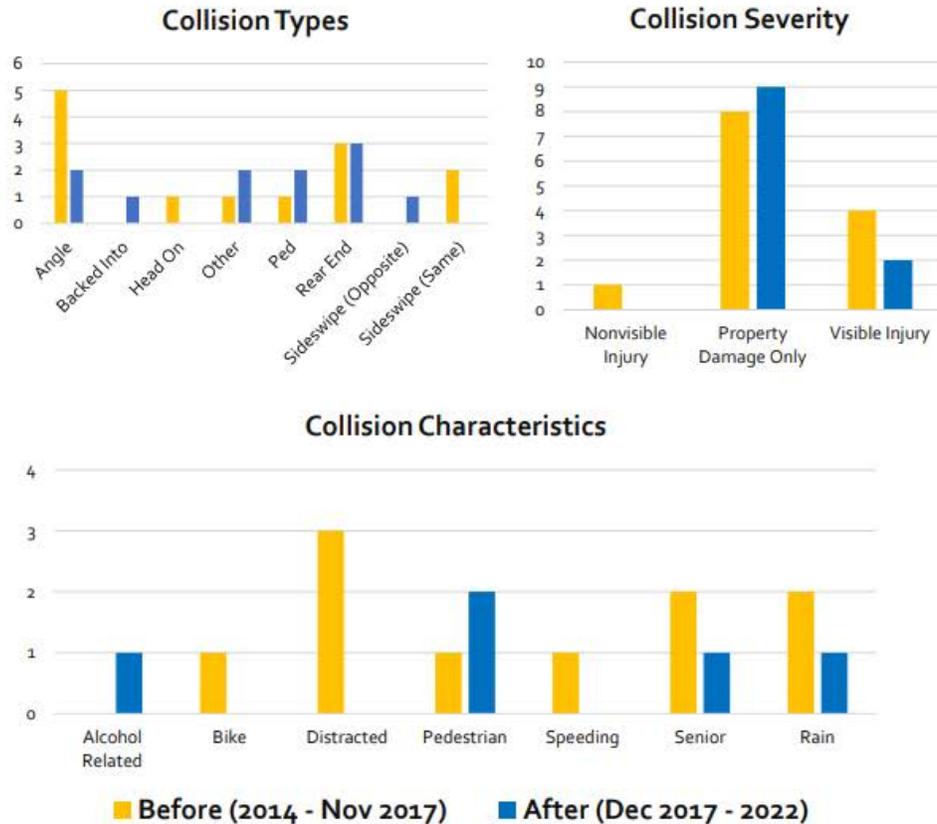
■ Before (2014 - Oct 2020) ■ After (Nov 2020 - 2022)



# Tactical Safety Project: Before/After

## Collisions Before and After: Fort Myer Dr and N Fairfax Dr

In November 2017, the County installed safety modifications at the intersection of Fort Myer Dr and N Fairfax Dr to clarify the merging and turning lanes and implement a yield sign. **The average number of collisions per year decreased from 3.25 in 2014-2017 (before the project) to 2.2 in 2018-2022 (after the project).**



### Tools Implemented

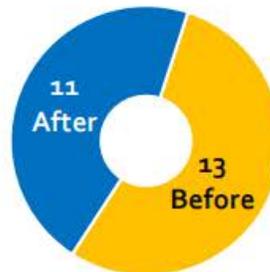
**Travel Lane Signs & Markings**

Inform road users of regulations and warnings to facilitate safe flow of all road users.

**Roadway Reconfigurations**

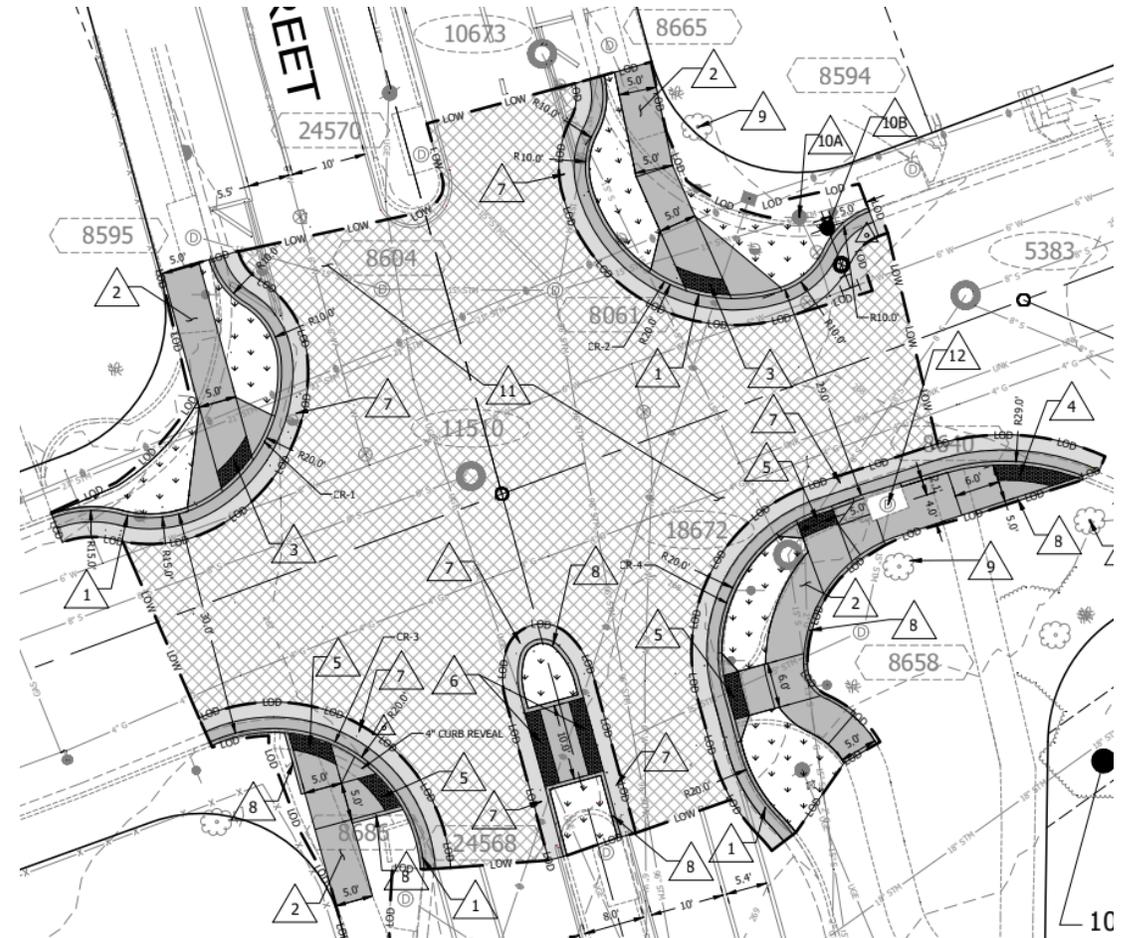
Reduce the speed of traffic, crossing distances, and/or provide additional space for other uses of the roadway.

### Total Collisions



# Quick-Build Safety Projects

- Cost is typically low- to mid-range and funded through capital funds.
- Can be implemented within one to three years.
- Intended to be permanent projects.
- Lower intensity planning and design compared to longer-term, capital-funded projects.
- Community engagement is typically low/ "communicate" level.
- Can begin with temporary materials and later be followed up with permanent materials.



# Quick-Build Safety Projects: Before/After

This project installed flashing beacons to improve pedestrian visibility at this mid-block crossing that is on a critical path to three schools.



# Quick-Build Safety Projects: Before/After

## BEFORE TREATMENT



## AFTER TREATMENT



This project added curb extensions to visually and physically narrow the roadway, reduce crossing distance for pedestrians/bikes, and reduce turning vehicle speeds. The project included marking stop bars and high visibility crosswalks.

# Pilot Safety Projects

When we apply a new safety tool or strategy for the first time or in a new type of location, it is called a “pilot safety project.” Pilot projects typically use temporary materials so they can be installed, adjusted, and removed easily.



## Why do we pilot?

We place pilot projects where there is a safety concern identified by observations and data.

Pilots allow us to (1) respond quickly to safety needs and (2) test materials or strategies in new environments to determine their effectiveness or impact.



## How long is a pilot?

A pilot can last from one month to over one year.

If the pilot addresses the safety concern and receives positive feedback, it may remain in place longer. If the pilot does not have the intended safety impacts or creates new concerns, we may adjust or end it sooner.



## How is the community involved?

Pilots are a temporary response to safety concerns, so pre-project engagement involves only those directly affected.

During the pilot, we welcome feedback from the community and may host a formal call to gather feedback.



## What next?

Staff defines performance metrics, collects data, and reviews results/feedback to assess if the pilot was impactful in addressing the safety concern.

If the pilot was impactful, we may keep it in place or install permanent materials. If the pilot had adverse impacts, we may try something different.

## Observe, Adjust, Repeat

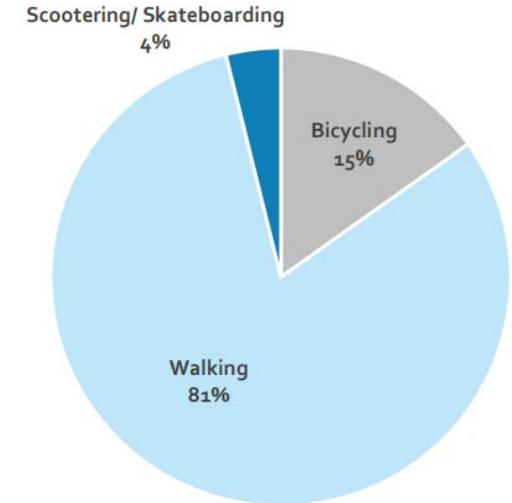


Because pilots involve new tools or settings, we closely observe how the pilot is working and adjust or remove if there are immediate safety concerns.

# Pilot Safety Project Example – Lane Closure



Observed travel modes along the sidewalk and buffer area:



There were 100-130 people using the buffer area per day.  
40-50% were students.

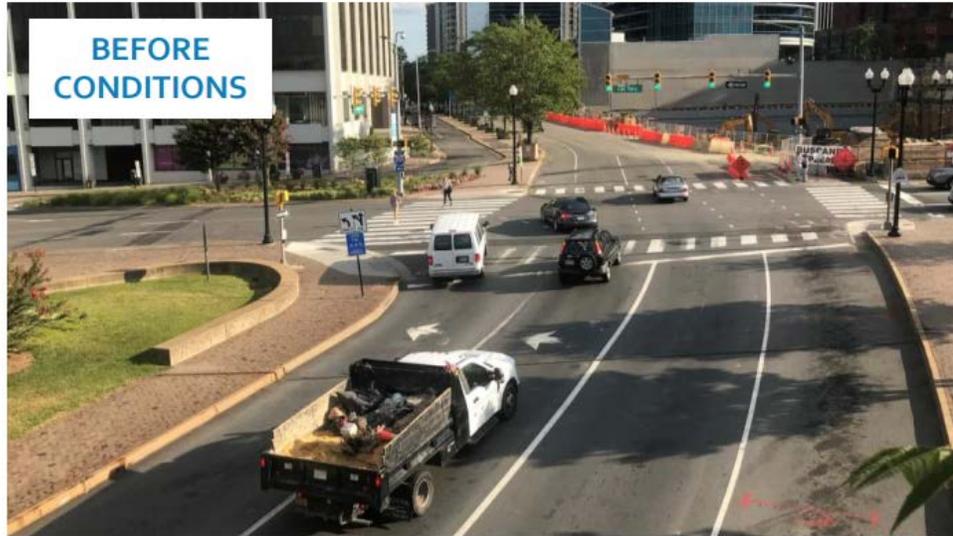
The pilot reduced travel lane space, which encouraged yielding for vehicles entering/exiting driveways.

About 9 in 10 cars approaching the driveways yielded to approaching pedestrians/bicycles/etc.

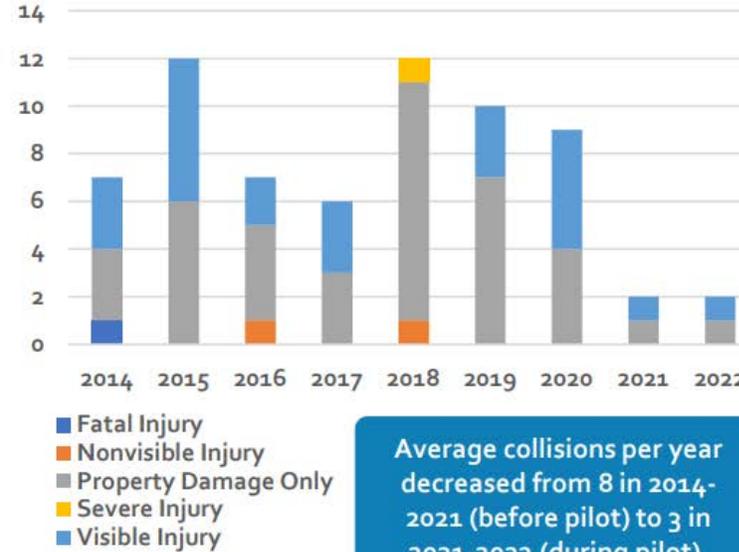




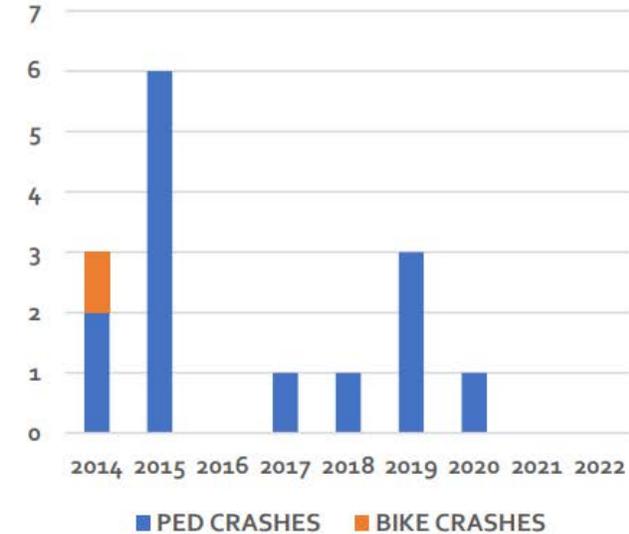
# Pilot Safety Project Example – Turn Lane Removal & LPI



Crashes at Fort Myer & Langston EB



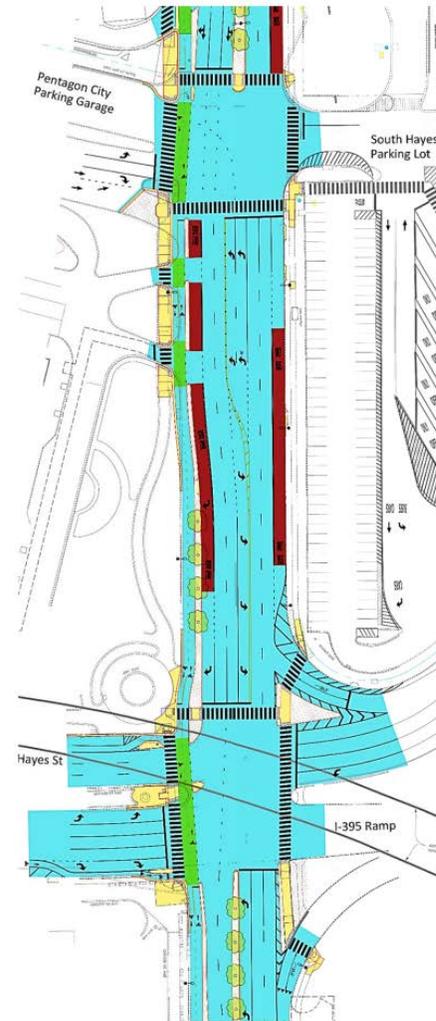
Pedestrian/Bike Crashes at Fort Myer & Langston EB



Removal of the outer left turn lane and addition of the Leading Pedestrian Interval (LPI) phase now **allows 40% of pedestrians to cross with no vehicle conflict.**

# Capital Safety Projects

- Cost is mid-range to high (funded through the Capital Improvement Program or part of a site plan development).
- Longer implementation timeframes (three or more years).
- Typically built with permanent materials.
- Requires significant data collection before implementation to ensure appropriate long-term design.
- Intensive planning and design of individual capital projects is the most intensive (ex. may require easements, etc.).
- May require procurement for construction services.
- High level of community engagement.



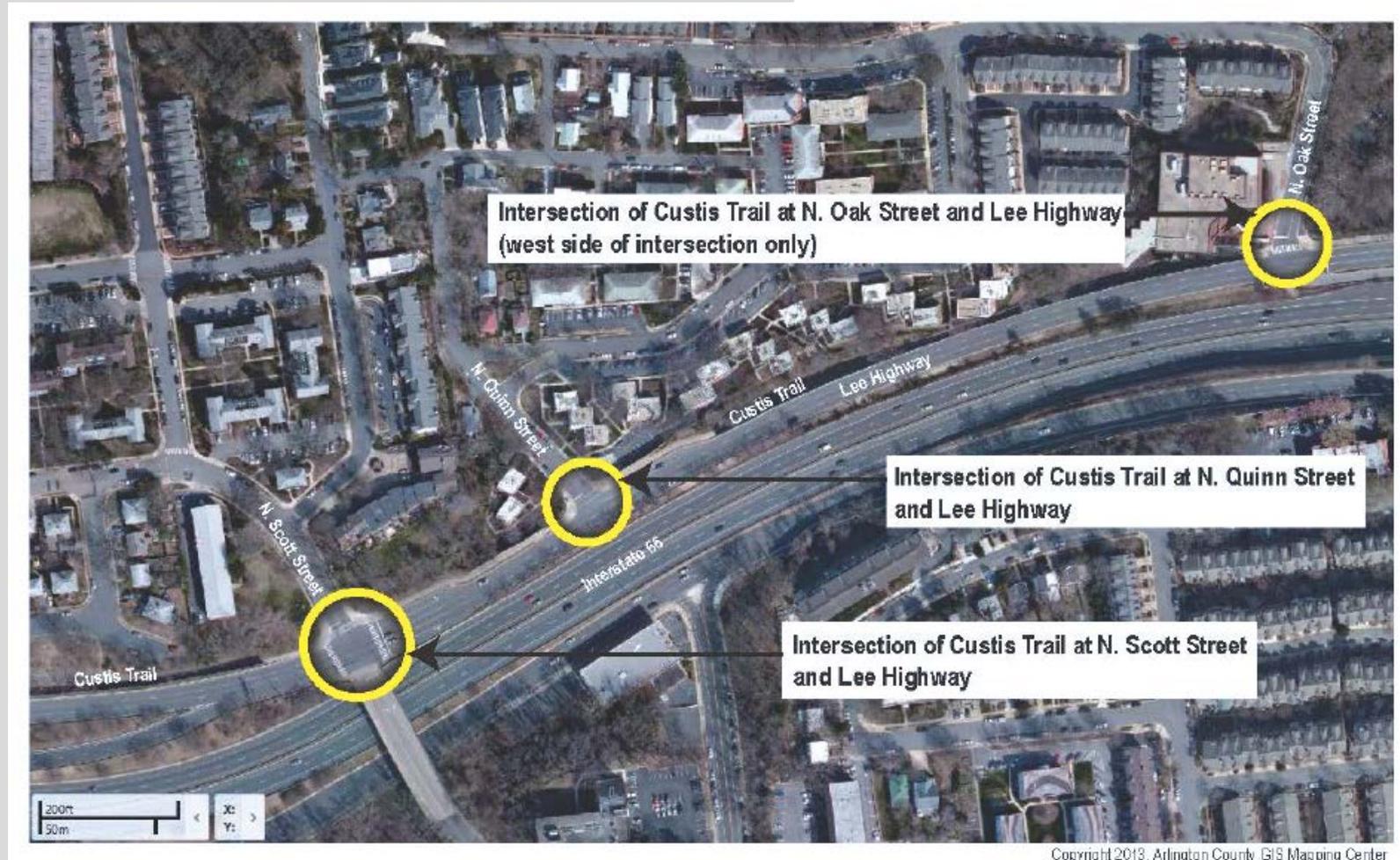
# Capital Safety Projects: Langston Blvd Esplanade Project

## Condition

- Heavily used trail
- Adjacent arterial

## General Improvements

- Improve crossings (3)
- Widen trail



# Capital Safety Projects: Langston Blvd Esplanade Project

## Condition

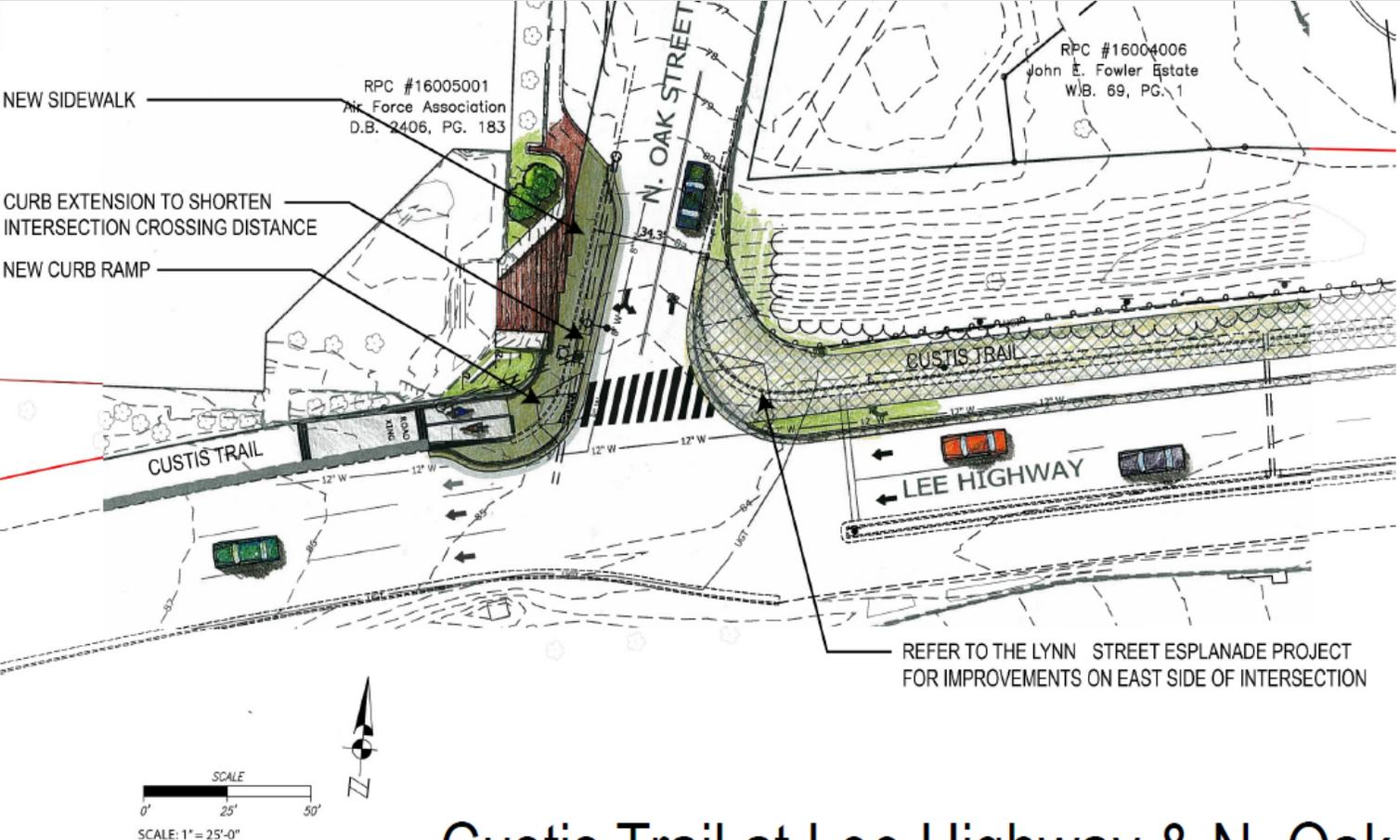
- Heavily used trail
- Adjacent arterial

## General Improvements

- Improve crossings (3)
- Widen trail



# Capital Safety Projects: Langston Blvd Esplanade Project

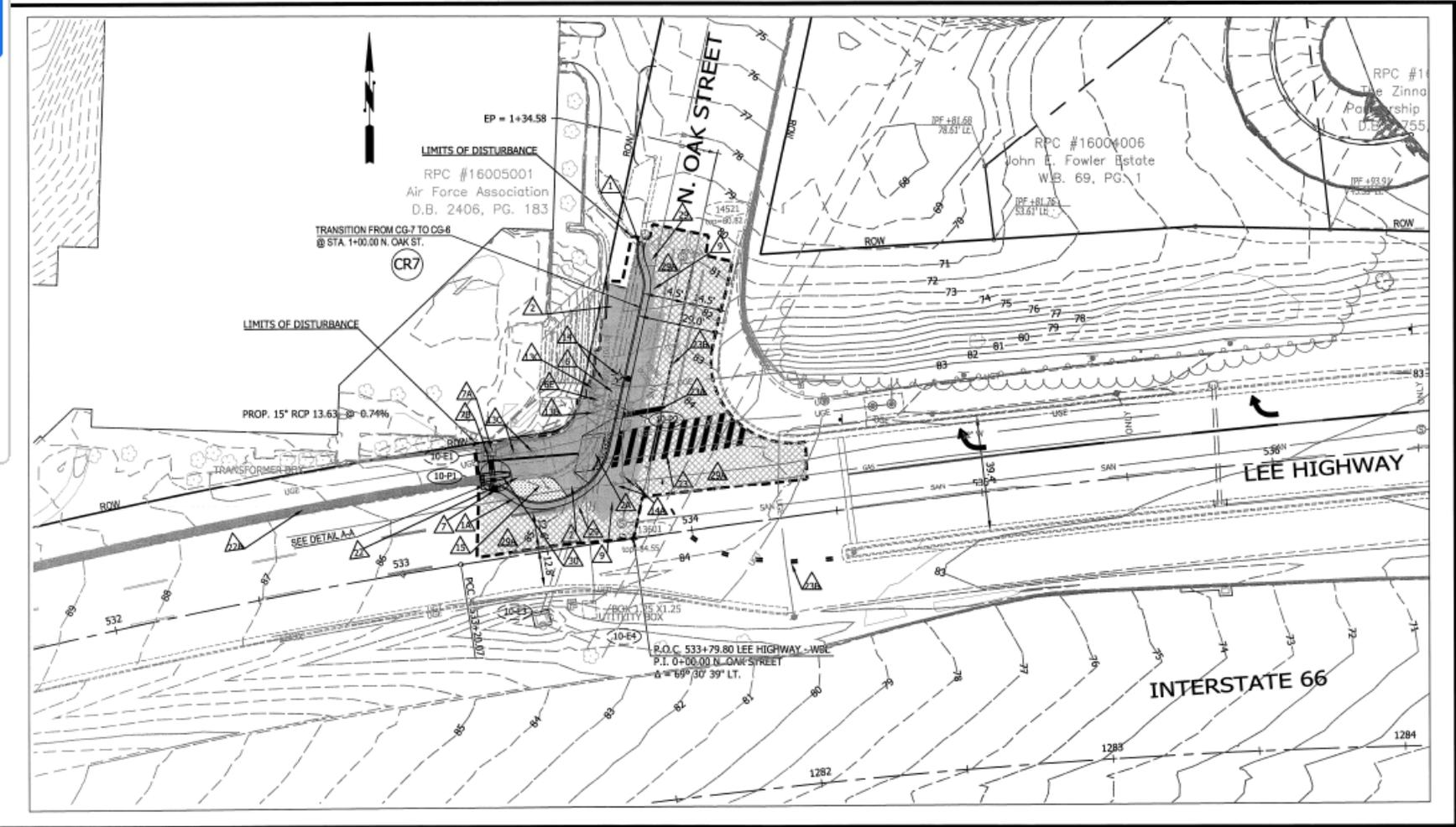


## Design Change After Analysis

- Initial concept proposed shared right turn/through lane

### Custis Trail at Lee Highway & N. Oak Street

# Capital Safety Projects: Langston Blvd Esplanade Project



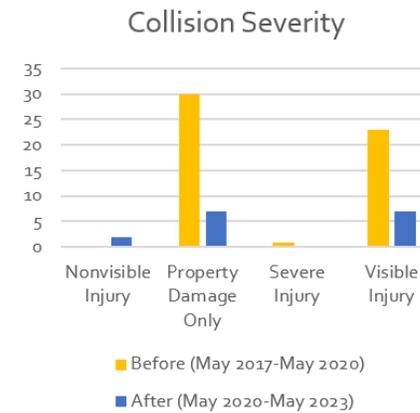
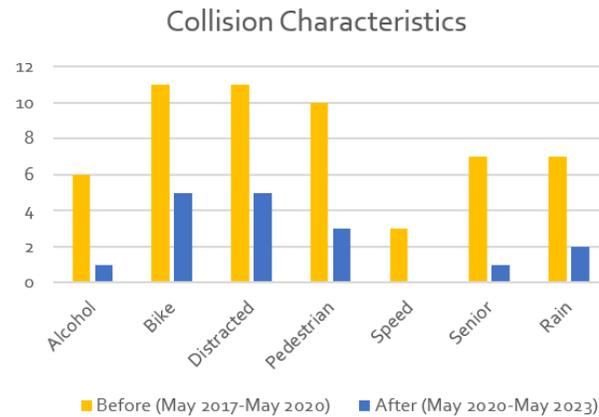
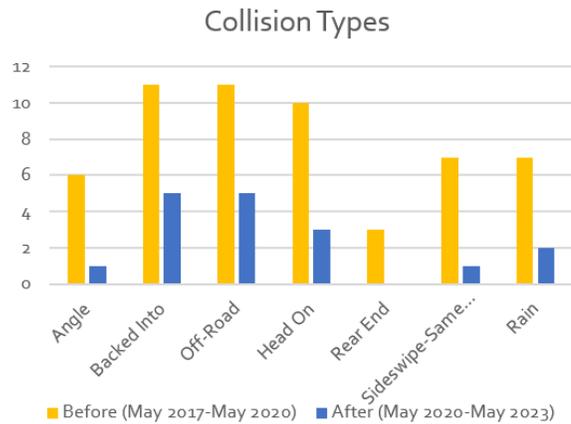
## Design Change After Analysis

- Initial concept proposed shared right turn/through lane
- Final design included right turn pocket

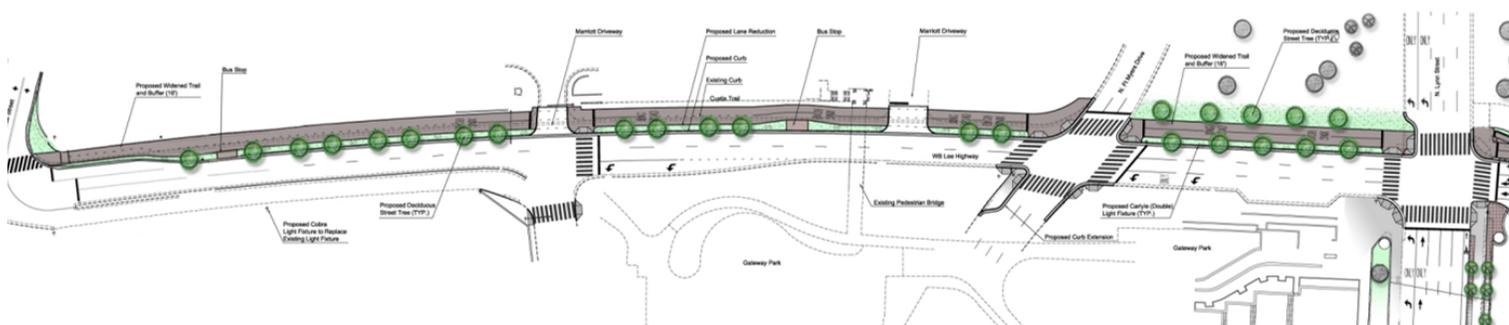
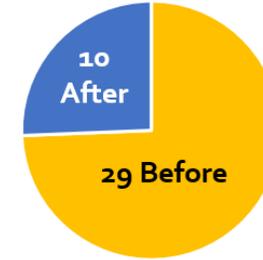
# Capital Safety Projects: Before/After

## Collisions Before and After: Langston Blvd Esplanade Project

In May 2020, the County completed the removal of a traffic lane and enhancement of the multi-use trail on Langston Blvd from N Lynn St to N Oak St. **The average number of collisions per year decreased from 29 in 2017-2020 (before the project) to 10 in 2020-2023 (after the project).**



Total Collisions



### Tools Implemented

#### Multi-Use Trails / Pathways



Create a dedicated route for pedestrians and bicyclists that is separate from vehicles.

#### Roadway Reconfigurations

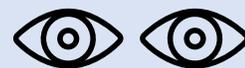


Reduce the speed of traffic, crossing distances, and/or provide additional space for other uses of the roadway.



# Tool-based Systemic Safety Applications

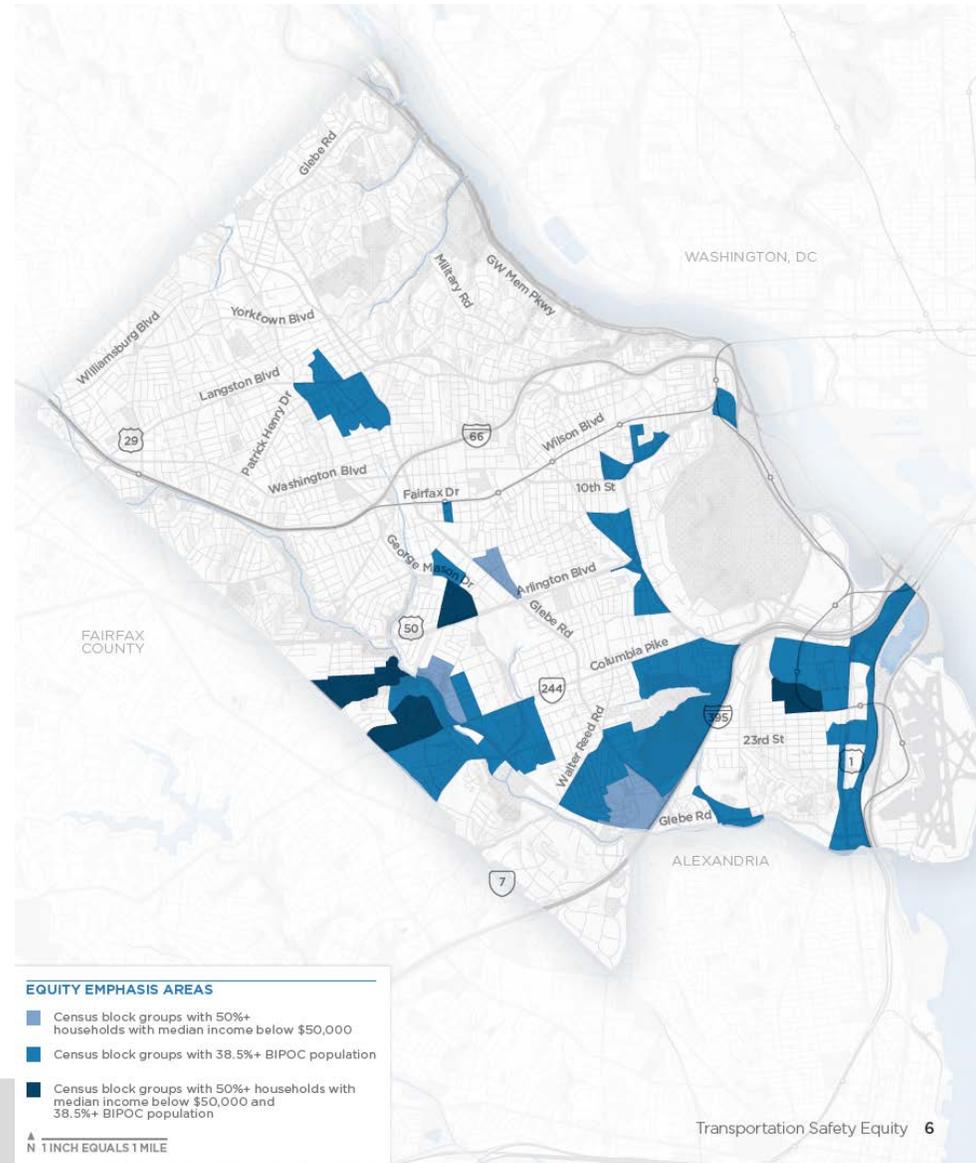
- Selected on an ongoing basis (as issues are identified)
- Application breadth depends on the scale and volume of improvements
- Prioritized on high-injury network, at hot spots, in equity emphasis areas
- Recent examples:
  - Stop bars (countywide)
  - School Zone Retrofits (countywide)
  - SLOW SCHOOL XING markings (uncontrolled arterial crossings in school zones)
  - Leading Pedestrian Intervals / No Right on Red (HIN corridors)
  - Tactical intersection tightening (wide corridors with crash history)
  - RRFBs (multi-lane uncontrolled crossings)



the [Toolbox](#) to  
learn more

# Countywide Spatial Systemic Safety Analysis

- In 2021, Arlington conducted a study to proactively identify and address common risk factors involved in injury crashes in the County
- Reviewed crash points from 2016 – 2020
- Looked for similarities across contributing factors and geographies
- Considered County-wide crash locations AND crashes specifically in Equity Emphasis Areas\*





# Systemic Safety Analysis: Crash Profiles

- The Analysis resulted in “Crash Profiles”: Locations across the county/equity areas with similar crash patterns (combinations of crash factors and geographic characteristics)
- The crash profiles strive to balance total crashes and fatal/severe crashes with patterns that can be tied to specific location-, user-, or behavior-based countermeasures.

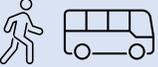
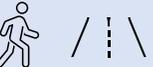
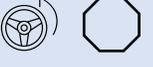
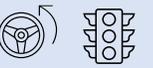
## Results:

### 10 Countywide Crash Profiles *AND* 10 Equity Emphasis Area Crash Profiles

#### Crash Factors and Geographic Characteristics Assessed:

- Travel Modes Involved
- Roadway Type (volumes, posted speed, signals/controls, sidewalks)
- Pre-Collision Movements
- Collision Factors (ex. alcohol, seniors)
- Collision Types
- Vehicle Type
- Proximity to Bike Share Station
- Nearby Land Uses
- Equity Indicators (low-vehicle access, limited English, disability status)

# Crash Profiles: 10 Countywide

1		Pedestrian-involved crashes at signalized intersections with high ADT and medium speed limit
2		Pedestrian-involved crashes within 50 feet of a bus stop or Metrorail Station entrance
3		Pedestrian-involved crashes with motor vehicle making left turn in mixed use areas
4		Pedestrian-involved crashes in low vehicle access areas
5		Pedestrian-involved crashes with motor vehicle proceeding straight at unsignalized intersections and midblock locations with low ADT and low speed limit
6		Bicycle proceeding straight and motor vehicle making right turn within 1/4-mile of a community facility
7		Alcohol-involved crashes at unsignalized intersections and midblock locations with low ADT and low speed limit
8		Left turns at unsignalized intersections with high ADT and medium speed limit
9		Right turns at signalized intersections with medium ADT and medium speed limit
10		Left turns at signalized intersections with medium or high ADT and medium speed limit

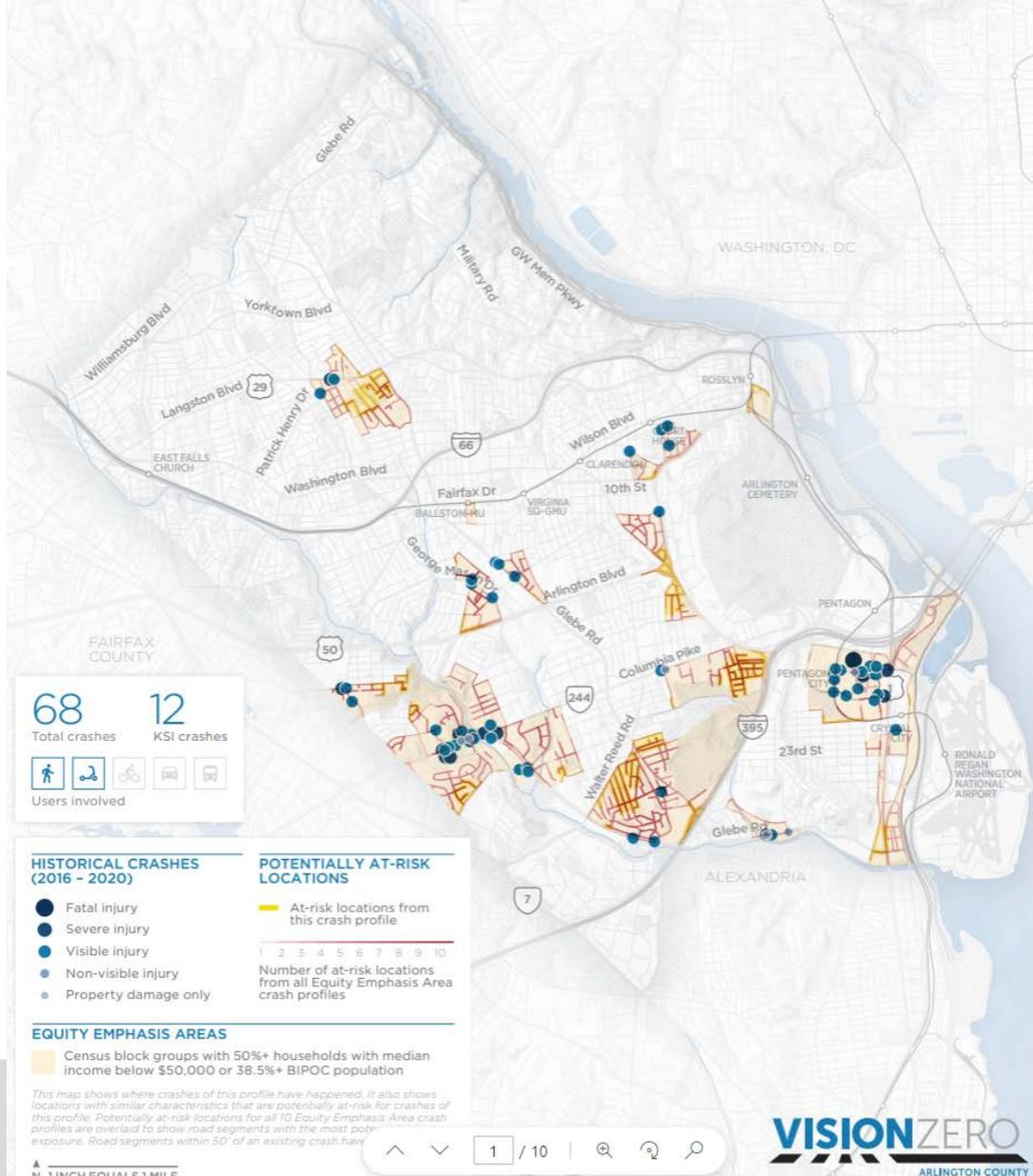
# Crash Profiles: 10 Equity Emphasis Areas

1		Pedestrian-involved crashes within ¼-mile of a community facility
2		Pedestrian-involved crashes with motor vehicle proceeding straight in low vehicle access areas
3		Pedestrian-involved crashes within residential areas
4		Senior-involved (60+) crashes within 50 feet of a bus stop or Metrorail station entrance
5		Pedestrian-involved crashes with motor vehicle turning left in low vehicle access areas
6		Left turns in commercial areas
7		Under 19-involved crashes in residential area
8		Alcohol-involved crashes within ¼-mile of a school
9		Alcohol-involved crashes in residential areas
10		Left turns within ¼-mile of a school

# Crash Profiles: Map Examples

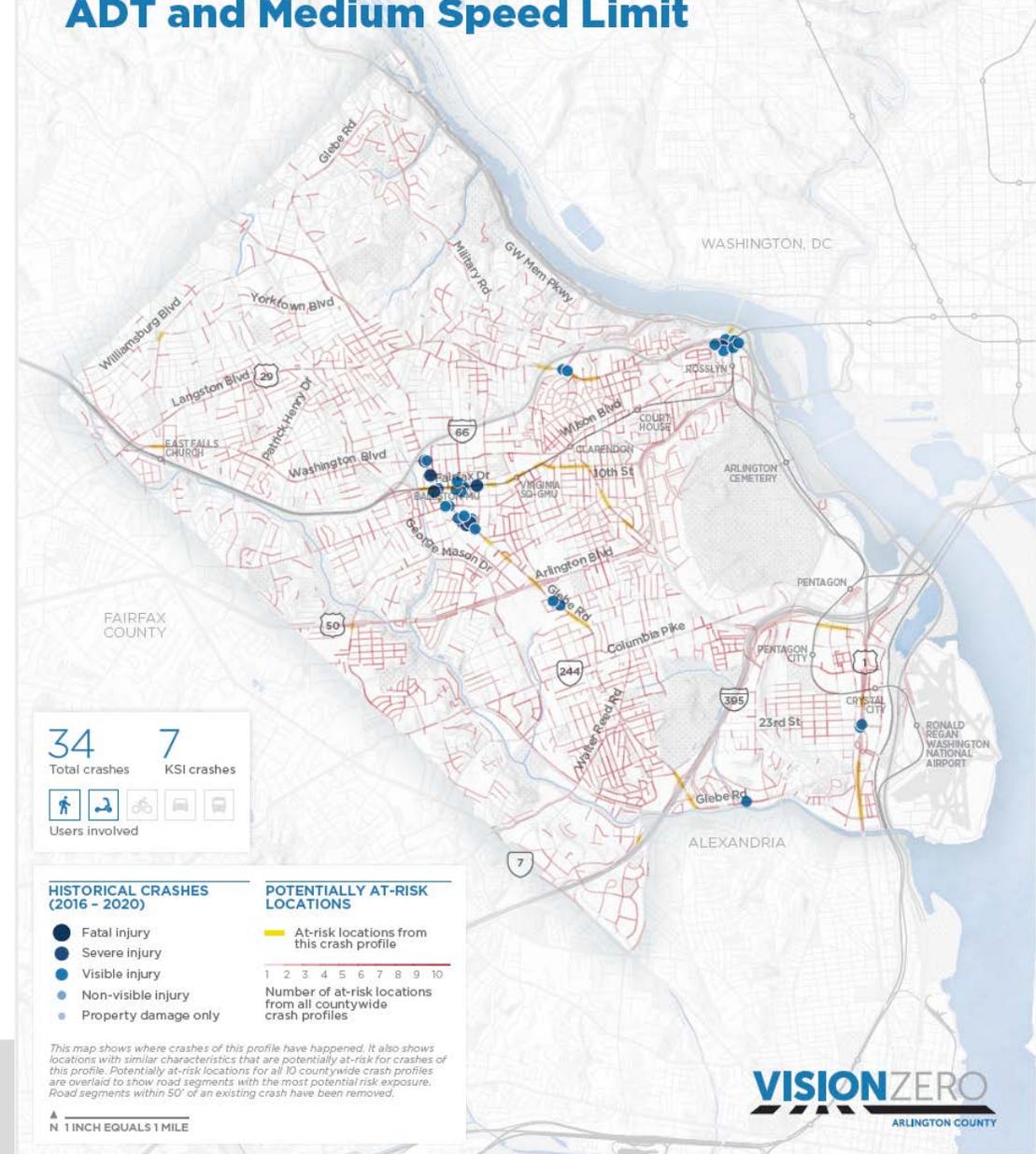
EQUITY EMPHASIS AREA CRASH PROFILE 1

## Pedestrian-Involved Crashes within One Quarter-Mile of a Community Facility



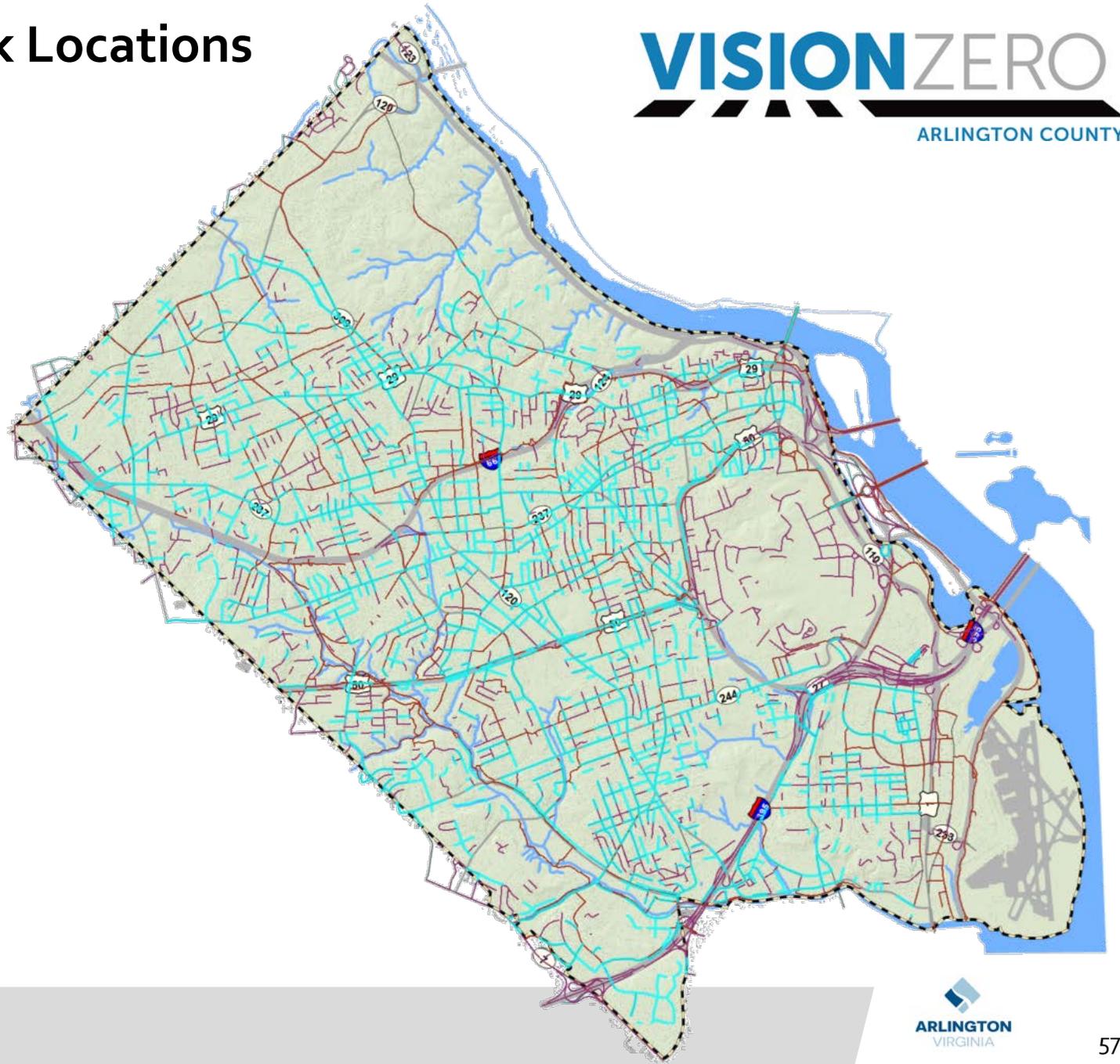
COUNTYWIDE CRASH PROFILE 1

## Pedestrian-Involved Crashes at Signalized Intersections with High ADT and Medium Speed Limit



# Crash Profiles: Potentially At-Risk Locations

- 8,067 Street Segments Analyzed
- **2,149 Potentially at-risk locations county-wide**
- **1,162 Potentially at-risk Equity Area Segments**

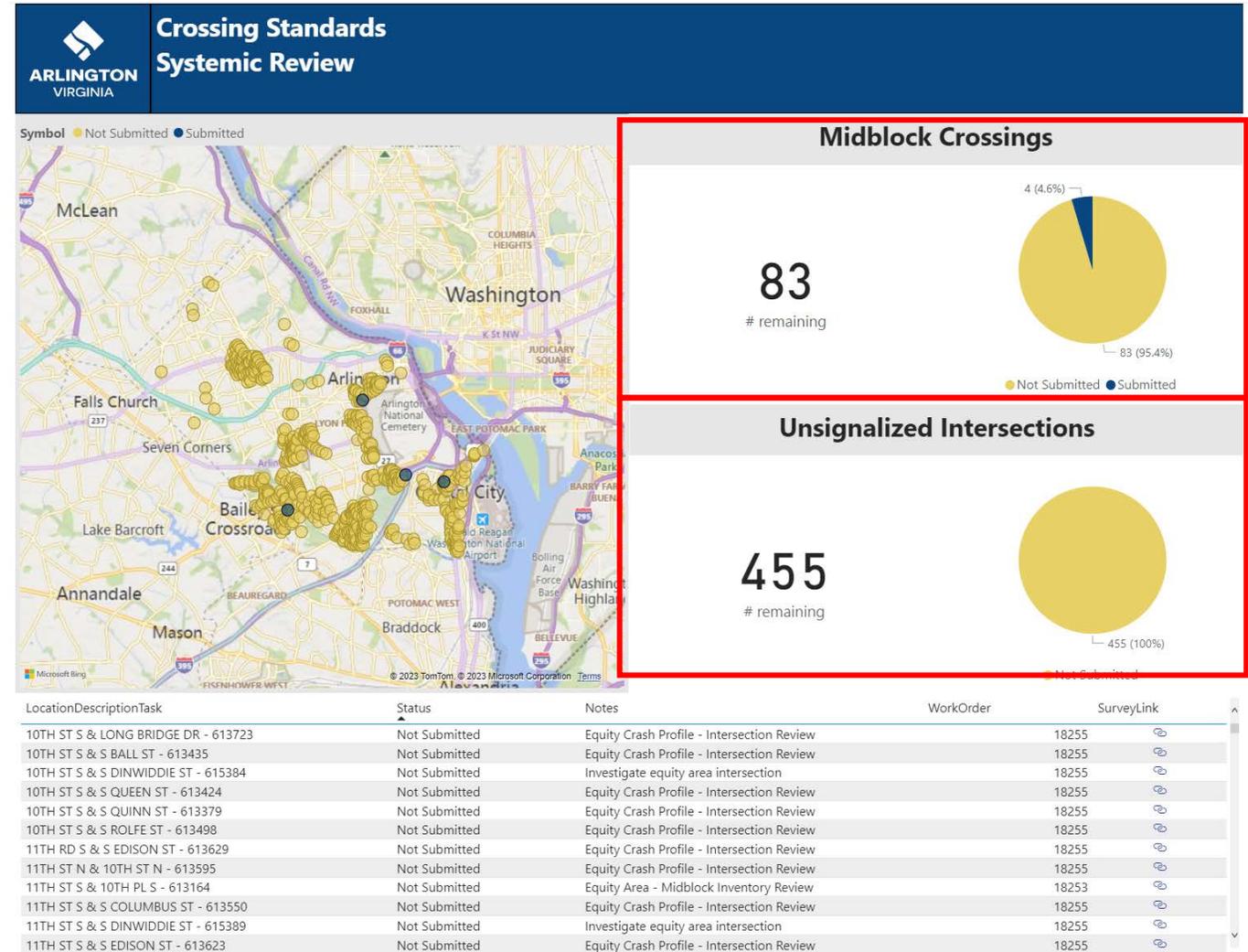




**That was interesting...**  
**But what are you going to do next?**

# Systemic Crossing Review

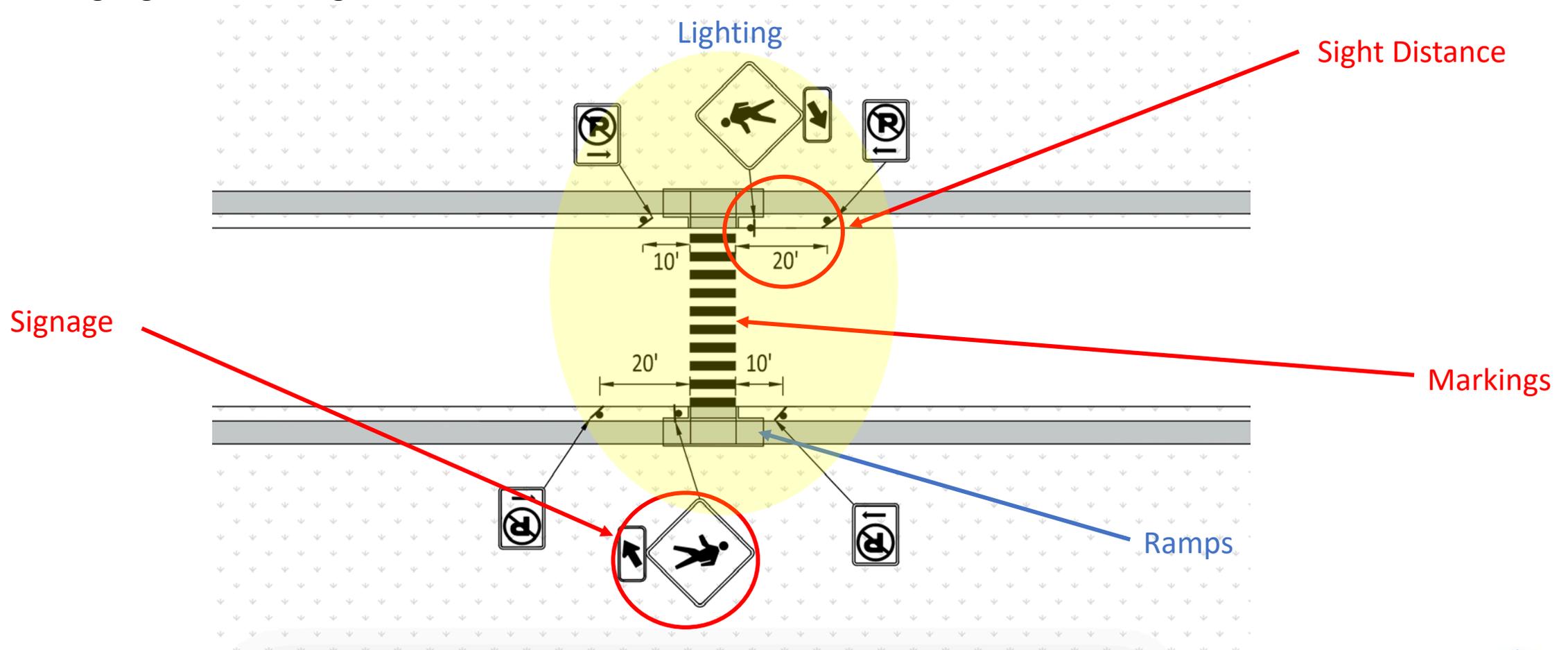
- Based off Equity Emphasis Area Crash Profiles, Identified 500+ locations for review.
- Do they meet current county standards for signage, markings, pedestrian ramps?
- Data Collection Using Google Forms and Power BI for tracking and user interface



# What are we looking for?

## Example: Midblock Crossing Review

Does a Midblock crossing meet our current county standards for signage and marking?



# Midblock Crossing Review

Is a median present?

Median

Signage and markings vary depending on whether a crossing has a median or not.

Midblock - an example of the Arlington County sign and marking standard for midblock crossings.

MIDBLOCK

Midblock w/ median - an example of the Arlington County sign and marking standard for midblock crossings with medians.

MIDBLOCK W/MEDIAN

Is a median present? \*

YES

NO



Do all crosswalks extend through the median? \*

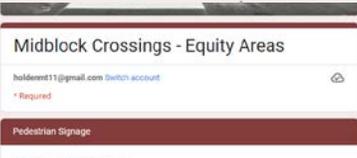
Yes

No

Back Next Clear form

ards for midblock  
depending on whether a  
nt or not.

asked to determine if a  
nt.



CHOOSING yes or no determines the  
path the reviewer takes, with a  
different set of questions for each

Is a median present? \*

Yes

No

Back Next

Is pedestrian warning signage present? \*

Yes

No

Back Next Clear form

# Midblock Crossing Review

- After each crossing review is submitted, the results will be tallied, making note of each standard that was not met.
- This tally of unmet standards, will then be used to prioritize the locations most in need of upgrades and will help build out a crossing upgrade work plan.

Midblock Crossings - Equity Areas

holdenmt11@gmail.com [Switch account](#)

\* Required

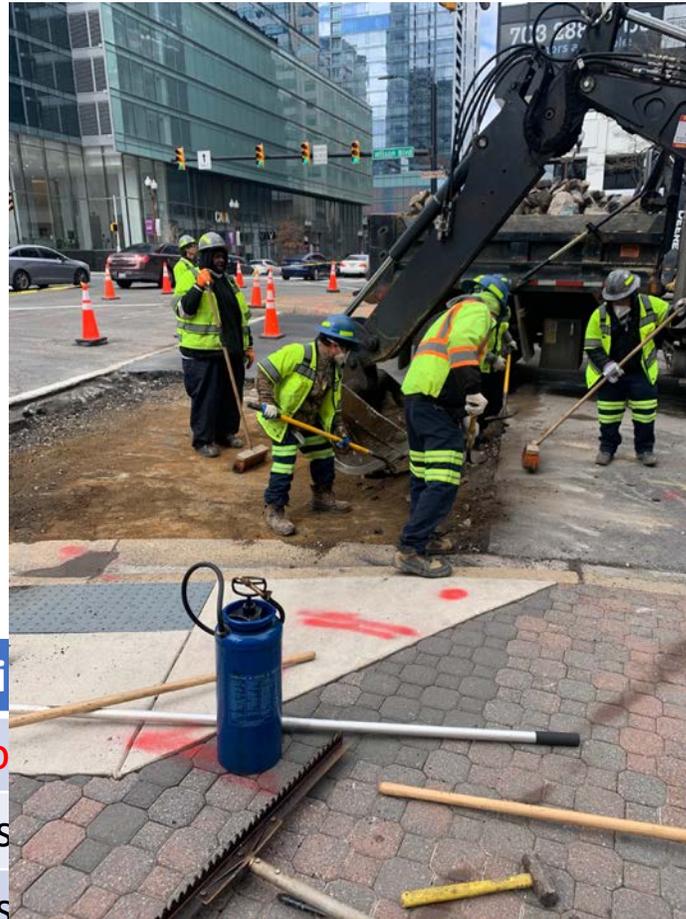
Markings

Are high visibility crosswalk markings present? \*

Clear form

Sight Distance	Signage	Markings	Ramps	Lighting
No	No	No	Yes	No
Yes	Yes	Yes	No	Yes
Yes	Yes	Yes	Yes	Yes

# Midblock Crossing Review



Marki

ng

No	No	No
Yes	Yes	Yes
Yes	Yes	Yes

## Integrating Safety into your Program

- Plans
- Policies
- Project Prioritization Processes
- Site Redevelopment
- Maintenance

# Wrap Up & Questions

[dnabors@arlingtonva.us](mailto:dnabors@arlingtonva.us)