Transportation Performance Management Webinar Series

Webinar 30

Integrating Transportation Safety – A Multidisciplinary Approach for State DOTs

Sponsored by FHWA and AASHTO

TPM

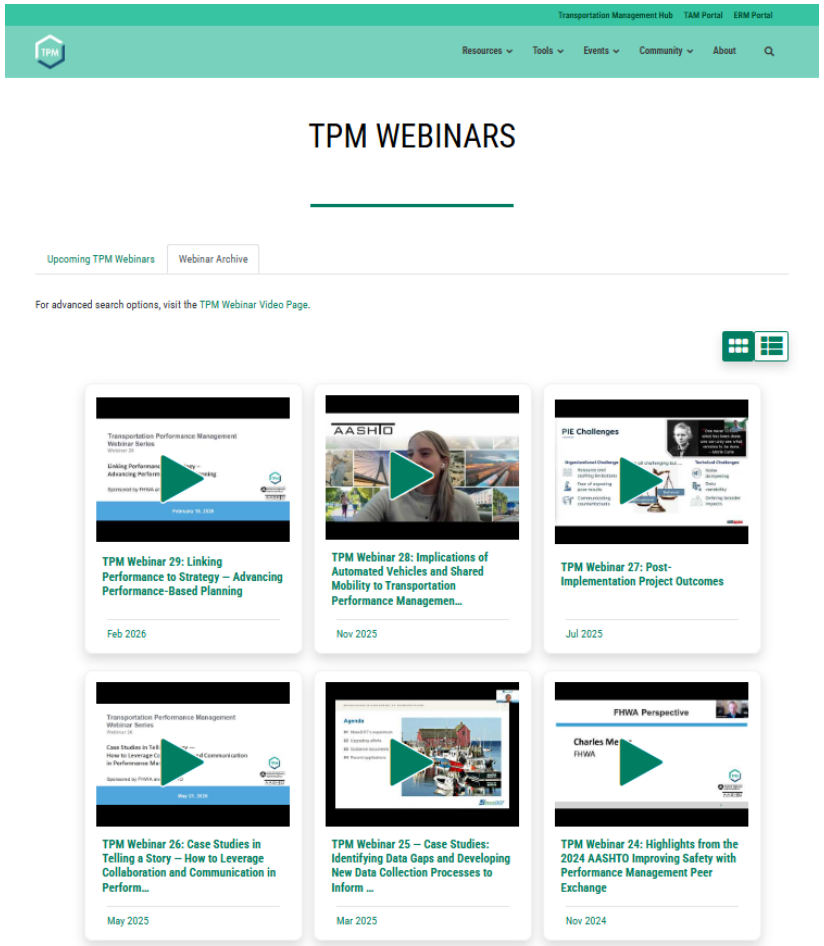
U.S. Department of Transportation Federal Highway Administration

AASHTO The Voice of Transportation

April 15, 2026

Welcome!

- Today is the **30th** webinar in our bimonthly series, held on Wednesdays at 2:00 PM ET
- Webinars cover a variety of topics with a performance management focus
  - You will be able to find the materials from this webinar on the TPM Portal: https://www.tpm-portal.com/event-directory/tpm-webinars/
- We are always welcoming ideas for webinar topics and presentations!
- Use the webinar chat to submit questions for today's presenters and ideas for future webinars



FHWA and AASHTO Collaboration

- The FHWA Asset Performance Team and the AASHTO Committee on Performance Based Management are pleased to cosponsor this webinar series
- Sharing knowledge is a critical component of advancing agency practices
  - FHWA Performance Management Hub: https://www.fhwa.dot.gov/tpm/resources/publications.cfm
  - AASHTO Transportation Management Hub: https://www.transportationmanagement.us/

AASHTO Committee on Safety

Kelly Campbell, Research Analyst, Principal

Idaho Transportation Department

Office of Highway Safety

Safety Data and Performance Management Subcommittee

Considerable value is realized when individual states are able to identify, analyze, prioritize, and evaluate safety performance using reliable data, including:

- Vehicle, driver, and vulnerable road user crash data
- Roadway and travel data
- Citation data
- Emergency response and medical data
- Observation and opinion surveys
- Behavioral risk factor surveys
- Other databases

Subcommittee Purpose

- Serve as a collaborative resource for
  - Federal Safety Performance Measures
  - Target setting
  - Reporting

- Support data collection and management efforts through sharing

- Highlight analytical methods and tools to expand the use of safety data in the various plans and strategies

Discussion Topics

- Planning-level safety data needs
- Data collection
  - Model Minimum Uniform Crash Criteria (MMUCC)
  - Model Inventory of Roadway Elements (MIRE)
- Data analysis
  - Network screening
  - Countermeasure selection
  - Economic appraisal
- State safety data trends
- Target setting and performance metrics
- Working with States Traffic Record Coordinating Committees

Safety Summit

Date and Location: September 28th-30th 2026
Hartford, CT

Note: The Committee on Safety will be meeting on Sunday Sept 27th in the afternoon for two hours

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Research Analyst, Principal
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Webinar Objectives

- **Explore** how states are implementing safety-related performance measures and management practices
- **Identify** critical intersections within transportation safety and public health
- **Highlight** proactive strategies and advanced technologies that are working in tandem to enhance safety analysis
- **Share** lessons learned, ideas, and knowledge!

Webinar Agenda

2:02 **Chair's Welcome and Overview**
Jean Wallace, CPBM Vice Chair and Minnesota Department of Transportation

2:05 **FHWA Welcome**
LaToya Johnson, Federal Highway Administration

2:07 **Subcommittee on Safety Data and Performance Management**
Kelly Campbell, Idaho Transportation Department

2:10 **Learning Objectives and Agenda**
Ryan Huff, CPBM Secretary and Nebraska Department of Transportation

2:15 ***Integrating Transportation Safety (Pre-Recorded)***
Jeremy Thompson, Ohio Department of Transportation

2:30 ***PATHS: An Integrated Health Equity Approach to Pedestrian Safety***
Lauren Blackburn, VHB

2:50 ***Vision Zero Louisville***
Mike Vaughn, Kentucky Transportation Cabinet

3:10 ***Kansas' Drive to Zero Plan***
Vanessa Spartan, Kansas Department of Transportation

3:30 **Panelist Discussion and Wrap Up**
Ryan Huff

TPM WEBINAR
INTEGRATING TRANSPORTATION SAFETY














Ohio DOT

Jeremy Thompson, P.E. - Safety Engineer

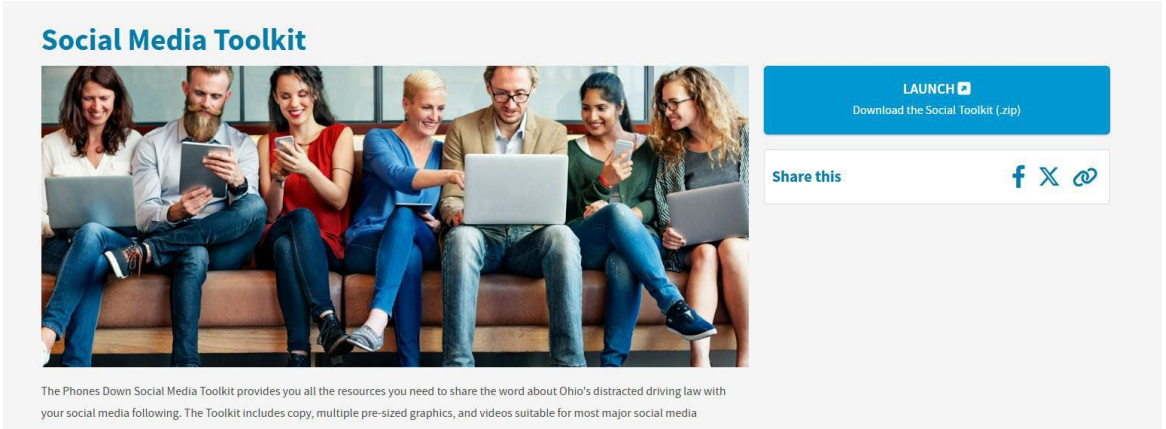
Department of Transportation

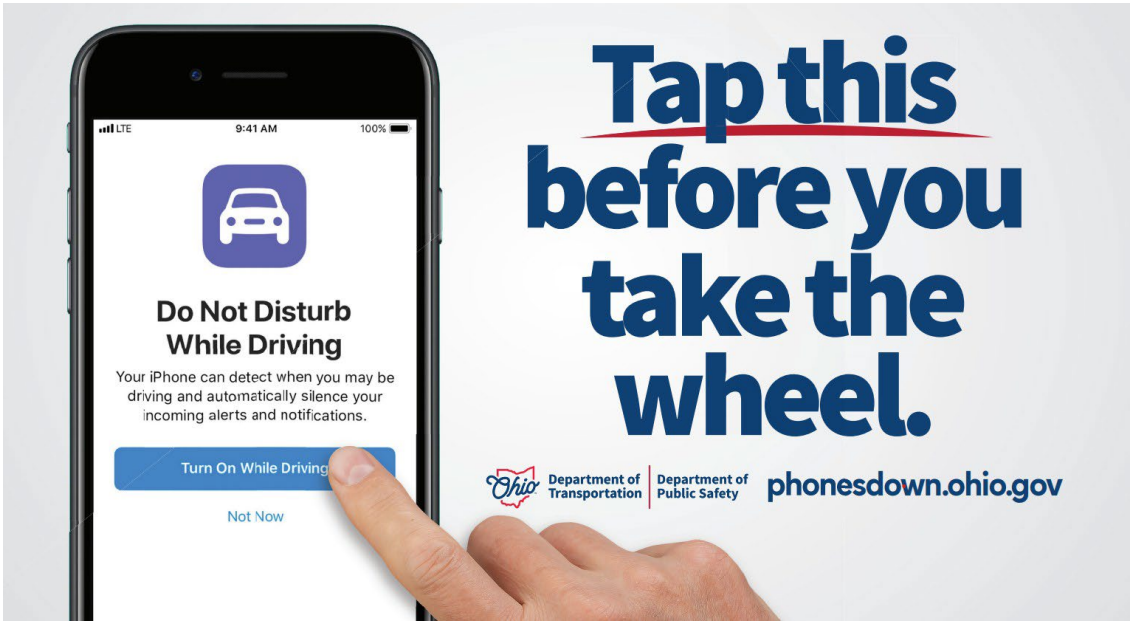
AGENDA

1. Use of telematics data to track efficacy of hands-free law
2. Tracking safety performance of projects
3. Integrating a safe system DOT-wide through enhancing project-level decision-making with context classification

USE OF TELEMATICS

CONTINUED MESSAGING





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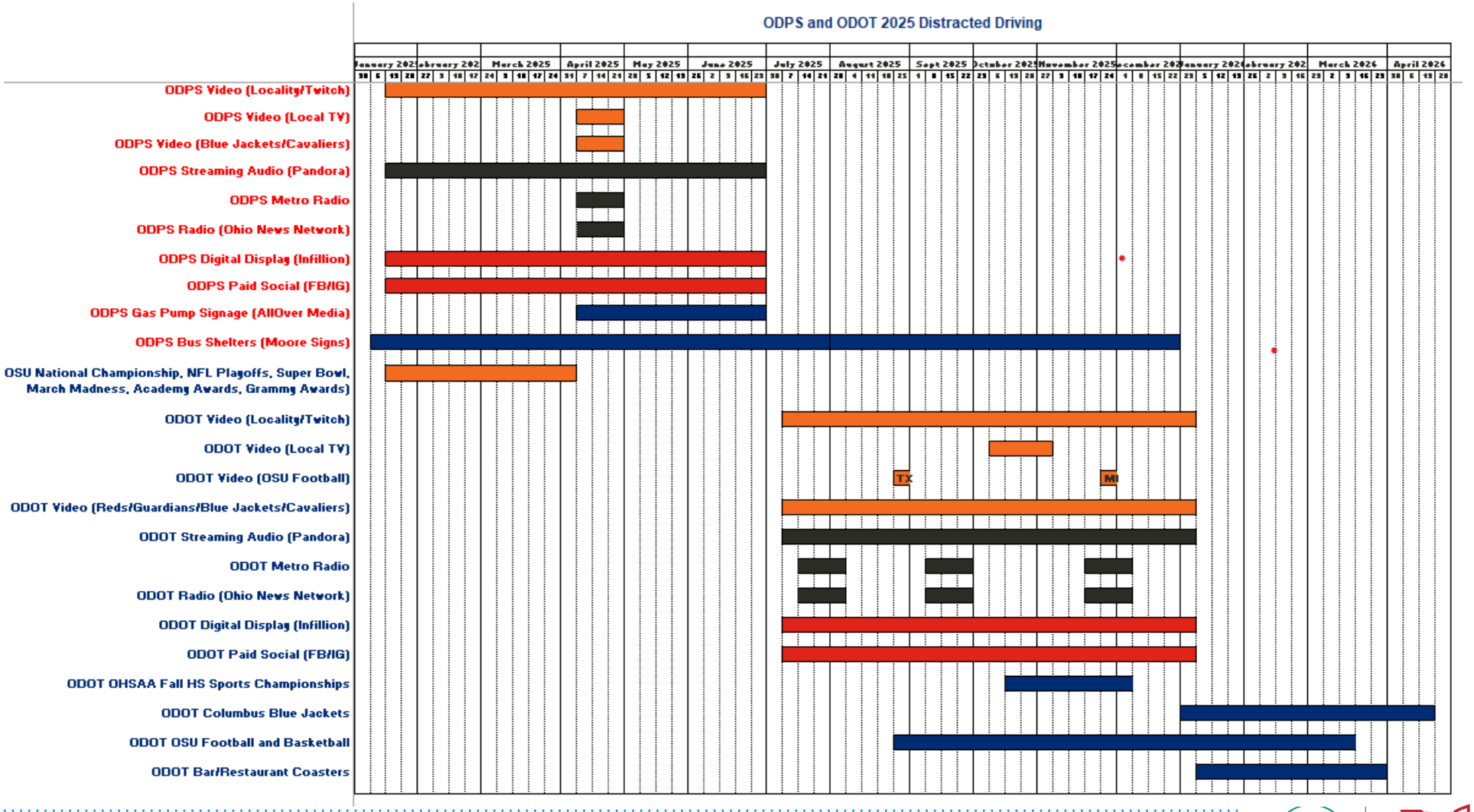
SUSTAINED MEDIA COVERAGE



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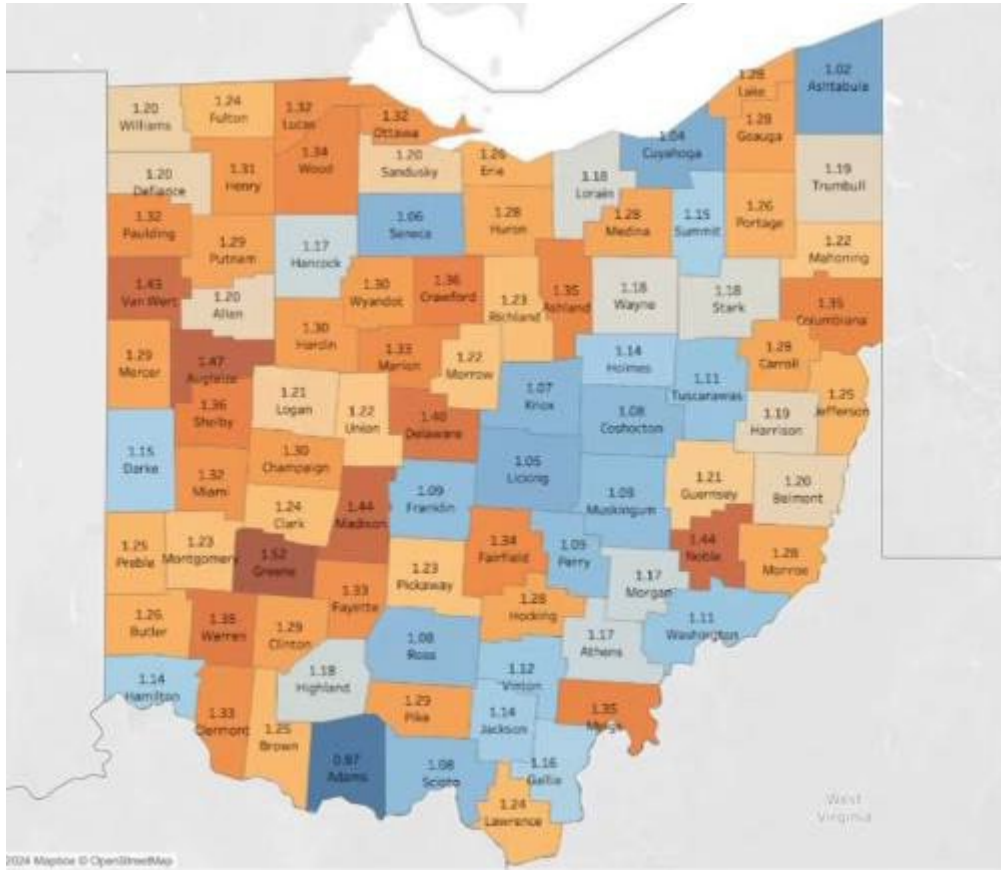
DETERMINING EFFICACY

Distraction by County Heatmap

Ohio counties show considerable variation in distraction according to the heatmap below (blue below the state average, orange above) with the most populous counties (and the major cities) tending to have lower rates of distraction compared to the more rural counties.



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COMPARATIVE ANALYSES

Phone tapping events by County in Ohio

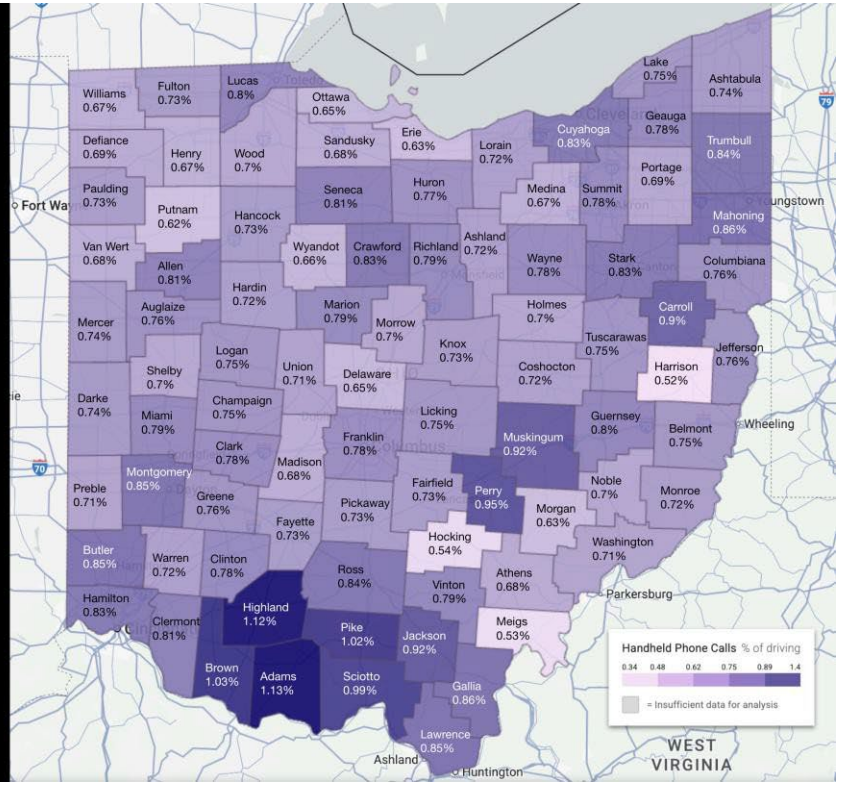
US Average: 23.56

Ohio Average: 21.86

Handheld call rates by County in Ohio

US Average: 0.82%

Ohio Average: 0.78%



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TARGETED ENGINEERING, EDUCATION, ENFORCEMENT

Ohio Department of Transportation

TRACKING SAFETY PERFORMANCE

PROJECT EVALUATIONS

- Updated Annually
- Tracking performance of safety projects
- Adjusted for inflation and volume changes
- Additional evaluation done for roundabouts, RCUTs, and road diets

Total HSIP Funding by Construction Complete Year

District	2016	2017	2018	2019	2020
1	$5,344,032.34	$1,372,952.70	$300,412.41		$2,607,392.60
2	$20,929,478.07	$10,155,270.85	$3,618,402.21	$1,997,454.96	$2,750,893.57
3	$11,575,847.55	$10,498,315.56	$4,218,093.36	$414,000.00	$5,153,438.72
4	$7,320,547.78	$12,473,375.02	$9,206,347.01	$1,805,945.39	$15,606,320.02
5	$200,124.45	$2,271,300.74		$6,395,969.28	$3,000,296.00
6	$24,020,778.26	$7,793,486.85	$15,818,940.82	$5,002,171.69	$22,142,157.96
7	$2,503,752.15	$5,604,134.69	$2,859,782.55	$2,856,214.44	$6,406,346.96
8	$8,985,986.99	$5,258,956.52	$4,787,996.92	$10,901,786.14	$7,483,788.22
9	$4,048,658.65	$448,576.46	$3,174,698.95	$2,737,973.59	$1,047,963.15
10	$2,400,957.70	$1,423,386.44	$400,000.00	$1,399,346.10	$3,089,770.18
11	$3,969,673.33	$2,841,027.63	$6,875,448.74		$495,300.00
12	$6,409,240.66	$5,447,599.70	$2,291,917.48	$2,931,103.22	$7,847,211.83
Total	**$97,709,077.93**	**$65,588,383.16**	**$53,552,040.45**	**$36,441,964.81**	**$77,630,879.21**

PROJECT EVALUATION DASHBOARD

Δ in FSI Crashes per Year	% Δ in FSI Crashes	Δ in FI Crashes per Year	% Δ in FI Crashes	Δ in Target Crashes per Yr	% Δ in Target Crashes
-69	-30%	-450	-19%	-1,534	-28%

Δ in FSI Crashes per Year

District	2016	2017	2018	2019	2020	Total
1	-0.7	0.3	0.3		-1.0	**-1.0**
2	-2.7	-5.0	-4.7	-3.0	0.0	**-15.3**
3	0.0	-0.7	-1.3	0.3	-0.7	**-2.3**
4	-7.3	-3.0	-6.3	-0.3	0.0	**-17.0**
5	0.0	-0.3		0.0	0.3	**0.0**
6	-1.7	-6.3	-2.0	1.3	-4.7	**-13.3**
7	2.3	0.0	0.0	-0.7	-3.7	**-2.0**
8	1.3	0.3	-5.0	-1.3	-9.7	**-14.3**
9	-1.7	0.0	-1.3	-1.0	-0.7	**-4.7**
10	-3.3	-0.3	0.0	0.0	0.3	**-3.3**
11	-0.7	-0.7	-0.3		-0.3	**-2.0**
12	0.7	0.7	-0.3	-0.3	5.7	**6.3**
Total	-13.7	-15.0	-21.0	-5.0	-14.3	-69.0

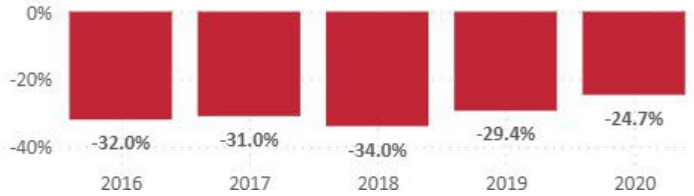
Δ in FI Crashes per Year

District	2016	2017	2018	2019	2020	Total
1	-10.0	0.3	0.7		-3.7	**-12.7**
2	-26.0	-21.0	-16.7	-13.0	-14.7	**-91.3**
3	0.3	-7.3	-1.3	1.3	-5.7	**-12.7**
4	-44.7	-16.3	-35.0	-12.0	-20.0	**-128.0**
5	-0.3	-15.0		-4.7	-0.7	**-20.7**
6	-11.3	-18.3	-9.7	12.0	-45.0	**-72.3**
7	13.3	-9.3	-0.3	-1.3	2.0	**4.3**
8	-4.7	-4.3	-40.0	-17.3	-34.7	**-101.0**
9	1.3	-1.0	-7.3	-2.3	-5.7	**-15.0**
10	2.7	-4.3	1.0	-1.7	0.3	**-2.0**
11	-4.7	-1.0	-0.7		-0.7	**-7.0**
12	11.3	-1.7	-2.3	-0.7	1.3	**8.0**
Total	-72.7	-99.3	-111.7	-39.7	-127.0	-450.3

Δ in Target Crashes per Year

District	2016	2017	2018	2019	2020	Total
1	-20.7	-1.3	0.0		-9.7	**-31.7**
2	-99.3	-42.0	-15.7	-18.3	-56.7	**-232.0**
3	-3.3	-19.7	-2.7	1.0	-5.3	**-30.0**
4	-39.0	-25.3	-116.7	-24.0	-86.0	**-291.0**
5	0.3	-34.7		-12.0	-8.7	**-55.0**
6	-54.3	-136.7	-46.0	-3.7	-249.7	**-490.3**
7	18.0	-3.0	-18.0	-7.3	37.7	**27.3**
8	-23.0	-21.3	-35.0	-80.7	-126.3	**-286.3**
9	10.0	-1.0	-11.0	3.3	-10.0	**-8.7**
10	4.0	-7.0	-2.0	-3.0	3.3	**-4.7**
11	-9.3	0.7	-7.0		-1.3	**-17.0**
12	-22.7	-55.0	21.7	-11.3	-47.3	**-114.7**
Total	-239.3	-346.3	-232.3	-156.0	-560.0	-1,534.0

% Δ in FSI Crashes



% Δ in FI Crashes

% Δ in Target Crashes

Ohio Department of Transportation

PROJECT EVALUATION DASHBOARD

Change in Crashes by Improvement Category

Improvement Category	Number of Projects	% Change in FSI	% Change in Fatal and All Injury	% Change in Target Crashes
Railroad grade crossings	1	-100.0%	-72.7%	-43.2%
Access management	5	-75.8%	-42.7%	-52.9%
Alignment	7	-73.7%	6.3%	-29.3%
Pedestrians and bicyclists	10	-61.7%	-16.2%	-19.0%
Intersection geometry	76	-44.9%	-25.0%	-27.4%
Shoulder treatments	6	-33.0%	-51.2%	-24.3%
Roadway signs and traffic control	1	-29.4%	-20.0%	75.0%
Intersection traffic control	49	-27.4%	-14.0%	-18.6%
Total	**234**	**-30.4%**	**-18.6%**	**-27.9%**

Change in Crashes by Improvement Subcategory

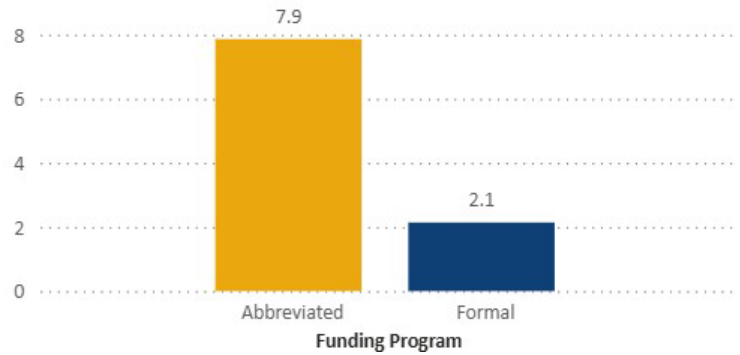
Improvement Subcategory	Number of Projects	% Change in FSI	% Change in Fatal and All Injury	% Change in Target Crashes
Auxiliary lanes - add right-turn lane (free-flow)	2	NaN	-51.7%	-63.6%
Auxiliary lanes - extend existing left-turn lane	1	NaN	40.0%	8.7%
Auxiliary lanes - modify free-flow turn lane	1	-100.0%	-72.9%	-53.7%
Auxiliary lanes - modify two-way left-turn lane	1	NaN	-50.0%	-14.3%
Grade separation	1	-100.0%	-72.7%	-43.2%
Horizontal and vertical alignment	1	-100.0%	0.0%	-33.3%
Horizontal curve realignment	3	-100.0%	-75.0%	-23.1%
Intersection geometrics - realignment to increase cross street offset	3	-100.0%	-6.0%	-12.1%
Total	**234**	**-30.4%**	**-18.6%**	**-27.9%**

PROJECT EVALUATION DASHBOARD

Benefit Cost by Construction Complete Year

District	2016	2017	2018	2019	2020	Total
1	4.15	-0.27	-1.21		2.47	**2.91**
2	2.22	2.34	5.62	1.19	3.46	**2.59**
3	-0.03	1.99	2.13	-2.83	3.05	**1.36**
4	9.70	1.19	10.09	4.24	1.96	**4.72**
5	-12.03	4.79		0.93	0.30	**1.31**
6	0.37	7.67	1.87	-1.97	3.55	**2.21**
7	-0.52	-0.12	-0.58	0.45	0.95	**0.17**
8	-0.19	1.22	7.13	1.09	8.19	**2.93**
9	1.55	1.60	1.30	3.51	16.24	**3.22**
10	1.20	1.90	-2.07	0.62	0.27	**0.76**
11	1.63	0.51	0.19		3.05	**0.76**
12	-1.16	1.80	0.00	1.22	-2.25	**-0.45**
Total	**1.54**	**2.29**	**3.52**	**0.88**	**2.72**	**2.21**

Benefit Cost by Funding Program



Benefit Cost by Functional Class

Functional Class	2016	2017	2018	2019	2020	Total
Urban Principal Arterial (UPA) - Other Freeways and Expressways	12.78	34.82		2.32	2.91	**4.59**
Urban Major Collector	-5.81	4.03	0.97	2.34	1.62	**3.04**
Rural Principal Arterial (RPA) - Other	2.39	9.60	-1.41	1.09	4.30	**3.03**
Urban Principal Arterial (UPA) - Interstate	1.13	1.48	1.03	5.16	5.24	**2.84**
Total	**1.54**	**2.29**	**3.52**	**0.88**	**2.72**	**2.21**

Benefit Cost by Improvement Category

Improvement Category	2016	2017	2018	2019	2020	Total
Lighting					95.95	**95.95**
Roadway signs and traffic control				57.20		**57.20**
Roadway delineation		42.13				**42.13**
Roadside	9.78	9.60	12.77		6.29	**8.18**
Total	**1.54**	**2.29**	**3.52**	**0.88**	**2.72**	**2.21**

Benefit Cost by Improvement Subcategory

Improvement Subcategory	2016	2017	2018	2019	2020	Total
Acceleration / deceleration / merge lane	-11.96					**-11.96**
Alignment - other	-0.27					**-0.27**
Auxiliary lanes - add acceleration lane					3.75	**3.75**
Auxiliary lanes - add left-turn lane	3.82	2.12	3.60	0.50	6.53	**2.76**
Auxiliary lanes - add right-turn lane	0.28		0.03	3.06	-2.20	**-0.52**
Auxiliary lanes - add right-turn lane (free-flow)			3.73	3.64		**3.71**
Total	**1.54**	**2.29**	**3.52**	**0.88**	**2.72**	**2.21**

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ADDITIONAL PROJECT TYPE EVALUATIONS

Roundabouts			
Crash Severity/Type	Crashes per Year Before	Crashes per Year After	% Change
Total Crashes	7.6	6.7	-7%
Fatal & Serious Injury Crashes	0.2	0.1	-78%
Fatal & All Injury Crashes	2.2	1.0	-56%

Crash stats are based on 72 sites.

27 sites include only one year of post-construction crash data.

Crash statistics for roundabouts generally show improvement after the first year of operation.

RCUTs			
Crash Severity/Type	Crashes per Year Before	Crashes per Year After	% Change
Total Crashes	8.8	4.7	-59%
Fatal & Serious Injury Crashes	0.4	0.4	-6%
Fatal & All Injury Crashes	3.9	1.6	-78%
Left Turn & Angle Crashes	3.3	1.0	-70%

Crash stats are based on 10 sites.

Fatal & Severe Injury crash stats are skewed by one site that has experienced an increase.

Road Diets			
Crash Severity/Type	Crashes per Year Before	Crashes per Year After	% Change
Total Crashes	43.8	33.5	-23%
Fatal & Serious Injury Crashes	1.0	0.9	-5%
Fatal & All Injury Crashes	13.8	12.0	-13%
Left Turn & Angle Crashes	11.0	7.3	-34%
Bicycle & Pedestrian Crashes	0.9	0.4	-55%
Speed Related Crashes	3.4	2.6	-22%

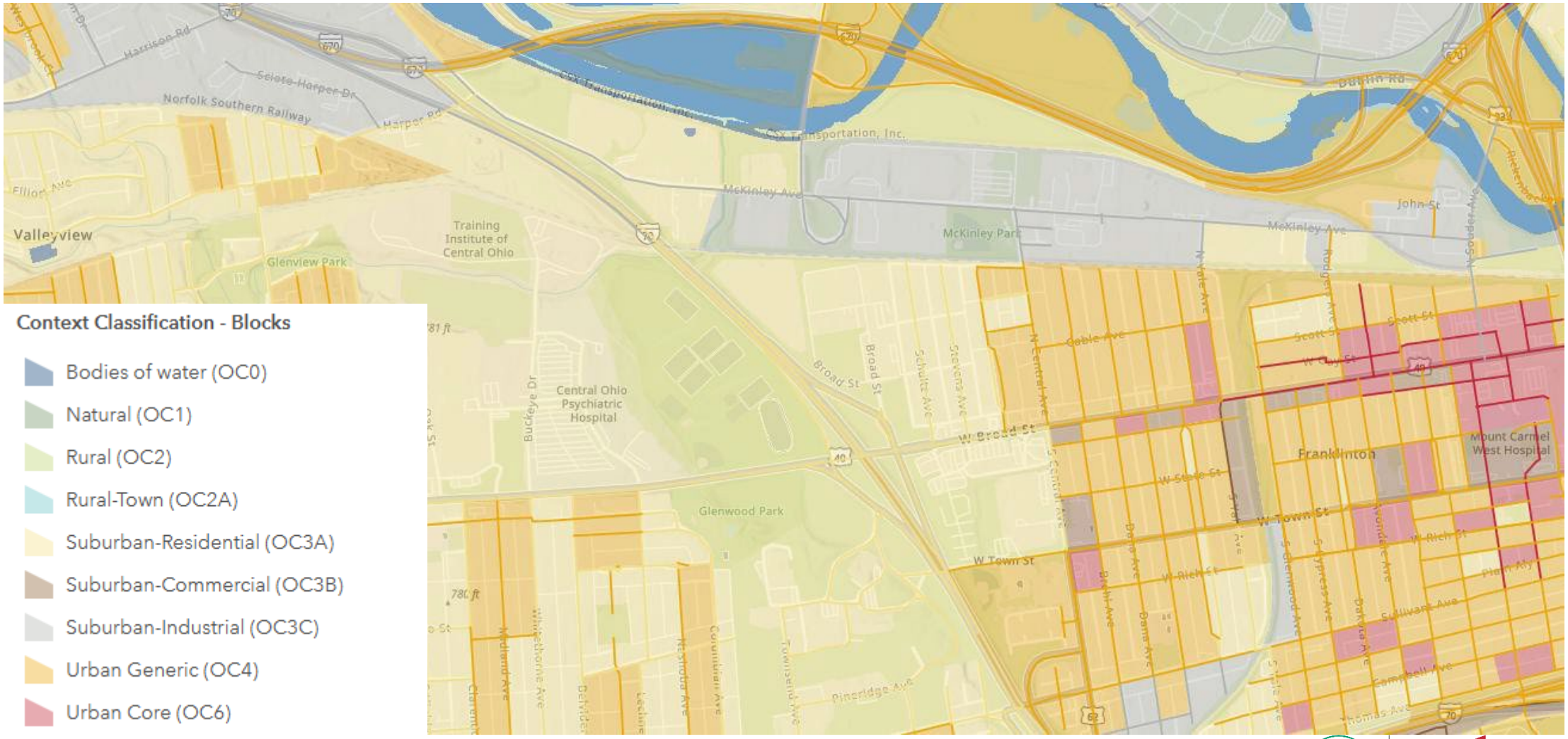
Crash stats are based on 8 sites.

The crash analysis was limited to projects where four-lane corridors were converted to three lanes.

Site Type	Benefit-Cost Ratio
Road Diet	3.03
RCUT	1.51
Roundabouts	
Overall	0.48
Single-Lane	0.58
Multi-Lane	0.13
Rural	0.66
Urban	0.35
Low-Speed	0.27
High-Speed	0.66

SAFE SYSTEM INTEGRATION – CONTEXT CLASSIFICATION

CONTEXT CLASSIFICATION



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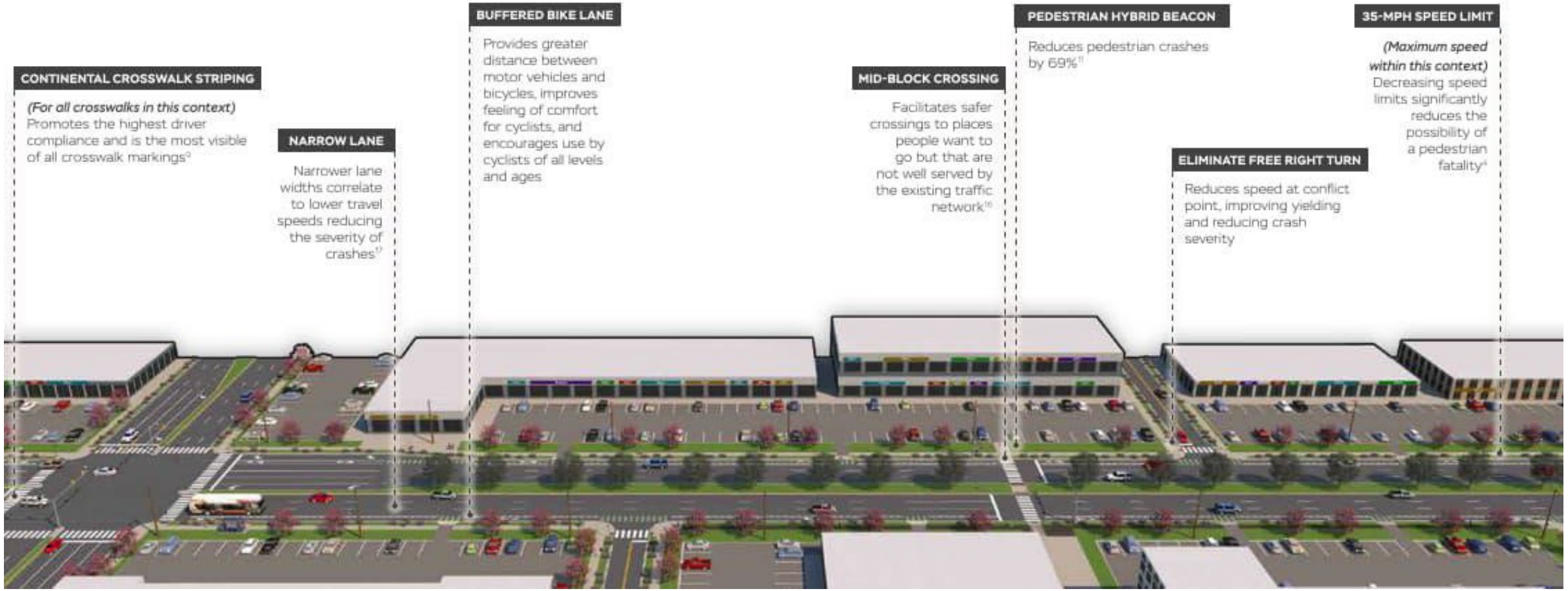
CONTEXT CLASSIFICATION



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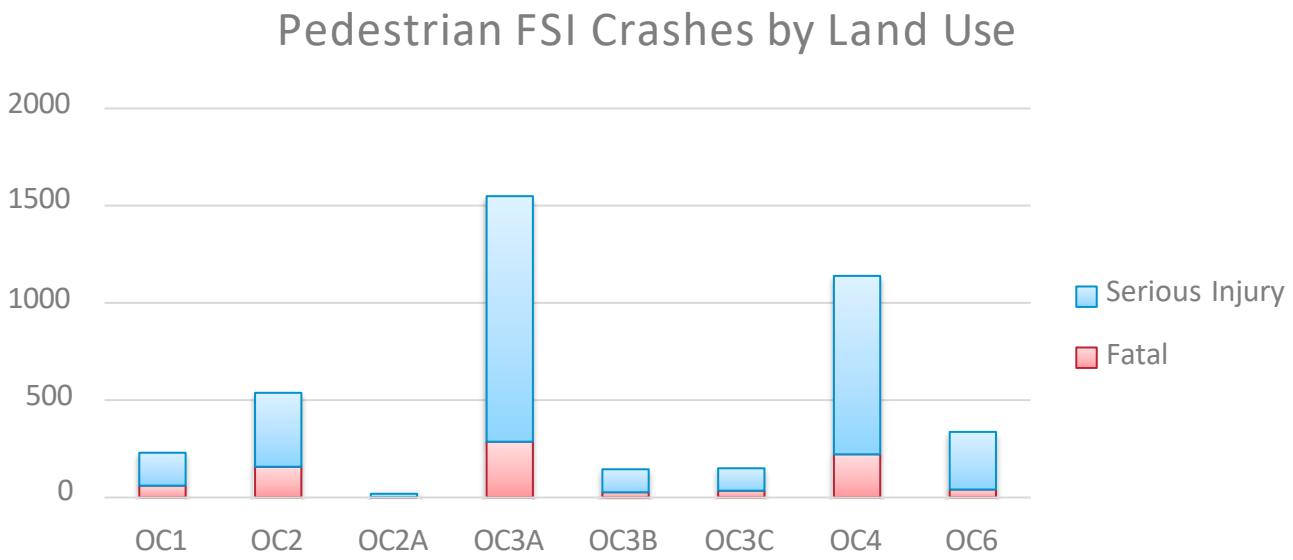
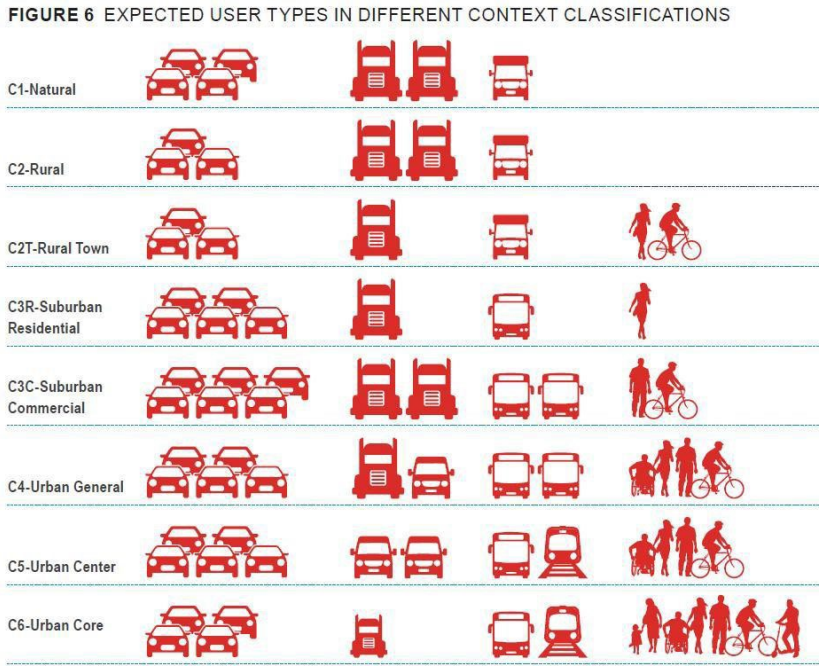
CONTEXT CLASSIFICATION





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transportation.ohio.gov

THANK YOU!

JEREMY.THOMPSON@DOT.OHIO.GOV


VDOT
Virginia Department of Transportation

PATHS Prioritizing Active Transportation, Health, and Safety

PRIORITIZING ACTIVE TRANSPORTATION HEALTH AND SAFETY

An Integrated Health Equity Approach to Pedestrian Safety

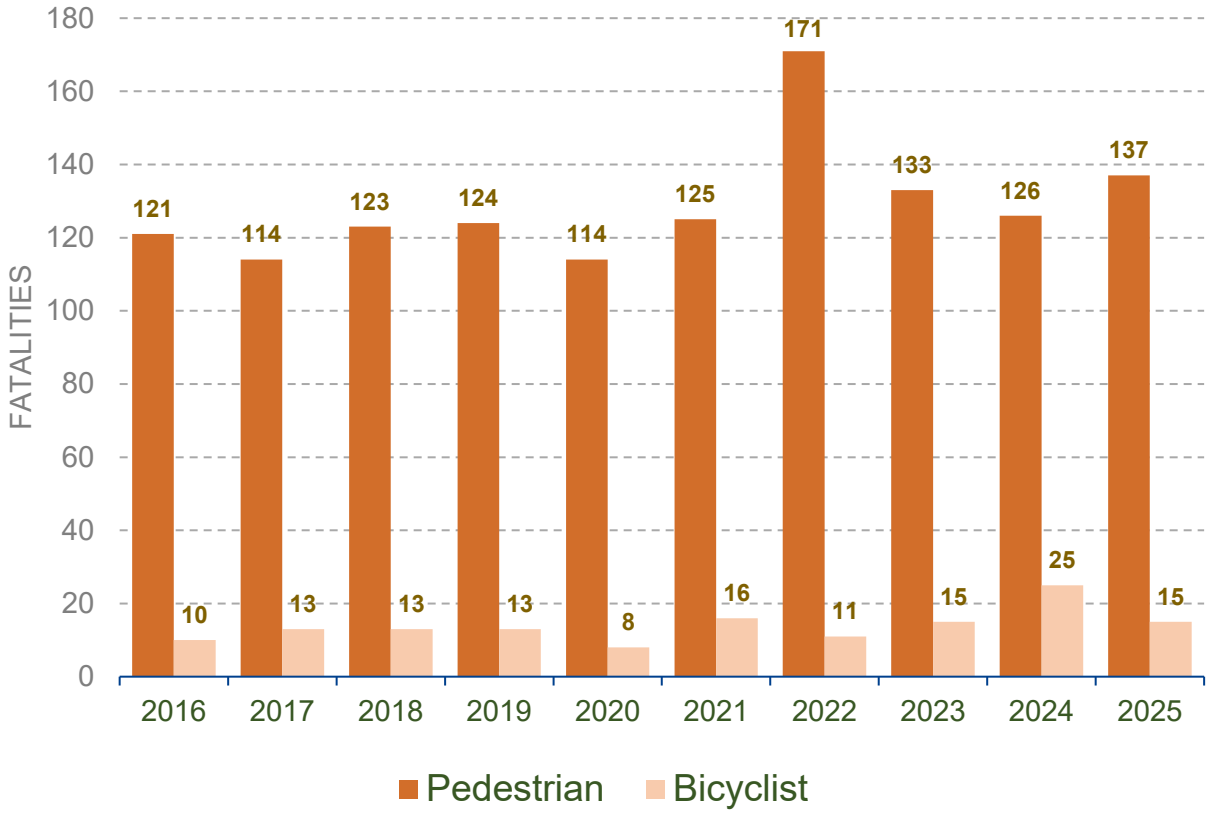
AASHTO Transportation Performance Management (TPM) Webinar
Integrating Transportation Safety: A Multidisciplinary Approach for State DOTs

Lauren Blackburn, VHB

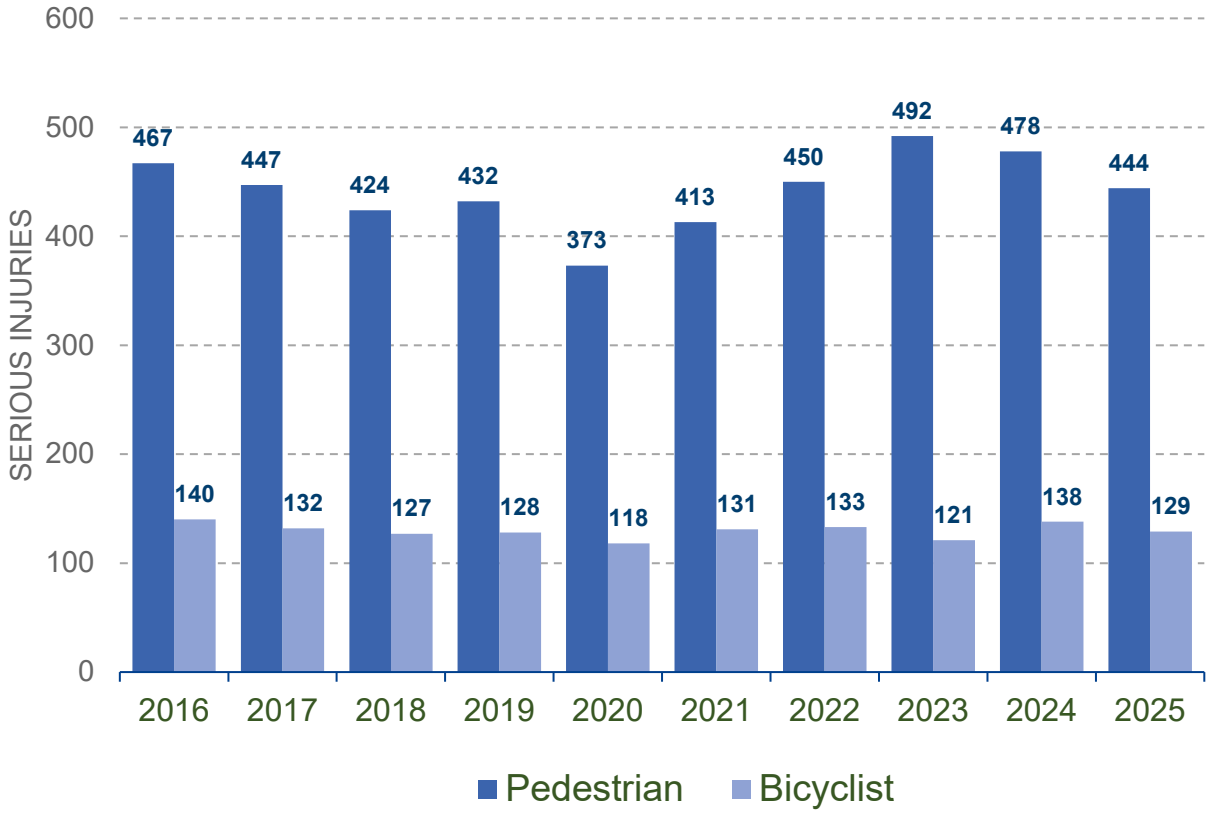
April 15, 2026

Virginia Ped & Bike Fatalities and Serious Injuries

Fatalities



Serious Injuries



Note: 2025 crash data is preliminary

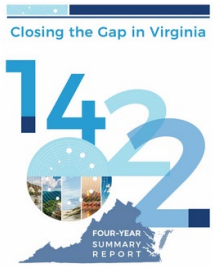
PATHS

Prioritizing Active Transportation, Health, and Safety

Mission

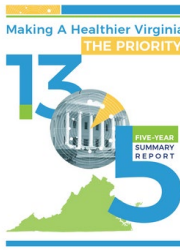
- Enhance multi-sector collaboration to further develop active community environments, walkability and active transportation to advance health equity and create a healthier Virginia
- Provide opportunities for improved communication and collaboration, training for staff, and data support

THE HISTORY OF PATHS



Closing the Gap
2014-2018

Making a Healthier VA
2013-2018



Pedestrian Crash Assessment / PSAP
2017-2018

Funded Initial PSAP projects
2018

Prioritizing Active Transportation Health & Safety
2021

Virginia Walkability Action Institute
2018-2019

Systemic Pedestrian Projects at Signalized Intersections
2019

VHSIP Systemic Projects
2020 - Today

PBSAP Updates
2020, 2022, 2024, 2026

VRU Safety Assessment
2023

PATHS Action Plan and Updates
2022 - Today

THE DRIVERS OF HEALTH ARE COMPLEX AND INTERCONNECTED

SycamoreInstituteTN.org

Virginia Health Opportunity Index

VDH VIRGINIA DEPARTMENT OF HEALTH | HEALTH OPPORTUNITY INDEX

Health Matters, Place Matters

HOW TO USE THIS DASHBOARD:

This dashboard provides information at the CENSUS TRACT level. Use the navigation buttons on the map, or the scroll wheel on your mouse, to zoom in and out. Hover to see information about an area.

Composite in Quintiles
- High Opportunity
- Low Opportunity
- Moderate Opportunity
- Very High Opportunity
- Very Low Opportunity

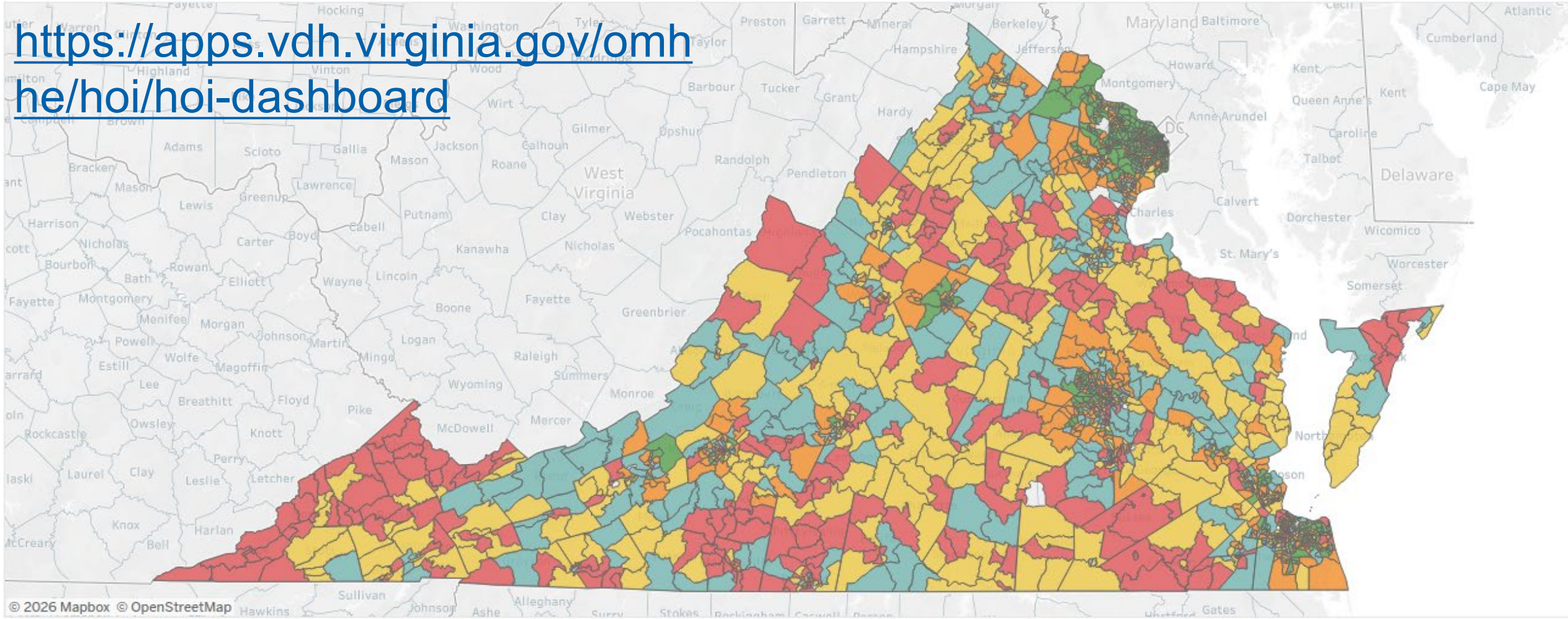
FILTER BY ONE OR ALL OF THE FOLLOWING OPTIONS:

Select Your Health District: (All)

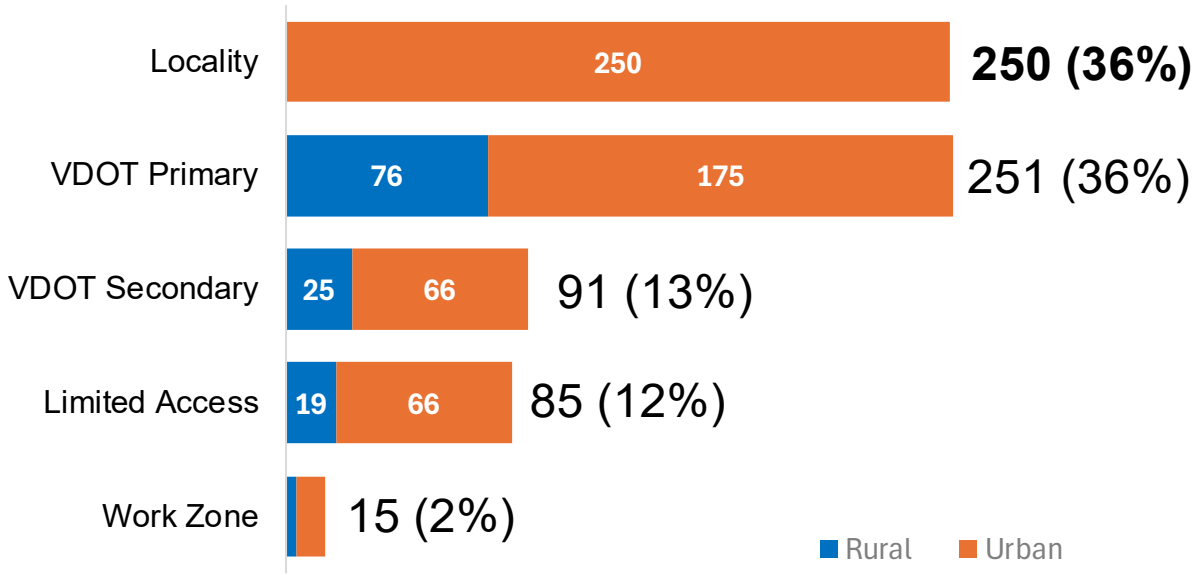
Select Your County: (All)

Select HOI Value: (Multiple values)

https://apps.vdh.virginia.gov/omhhe/hoi/hoi-dashboard



Ped Fatalities by System and Area Type (2021-2025)

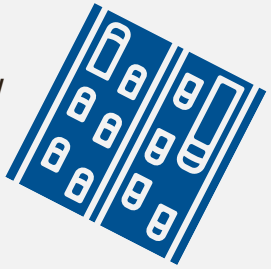


Note: Work zone-related crashes are NOT included (total 677) for remaining analyses

138 pedestrian fatalities per year on average

18% are rural roadway fatalities

82% are urban / suburban roadway fatalities



62% are on VDOT roadways

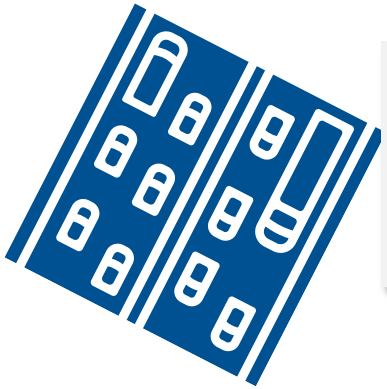
2% occurred in work zones (summarized in a separate assessment)

Pedestrian Non-Limited Access Facility Contexts

	% Share of Pedestrian Fatalities*	% of Fatalities on Arterials
Urban	83%	84%
Rural	17%	67%

42% on urban roads are within 500ft of a Bus Stop

24% are within 150ft

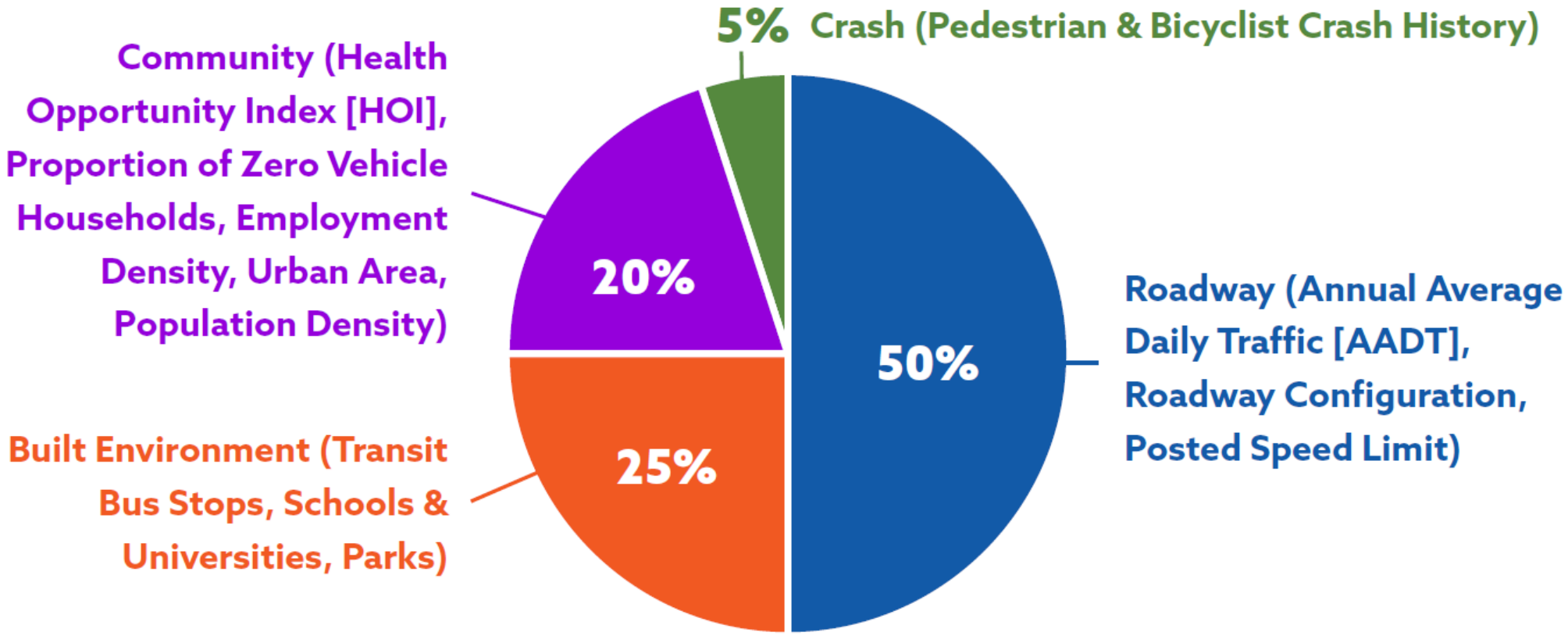


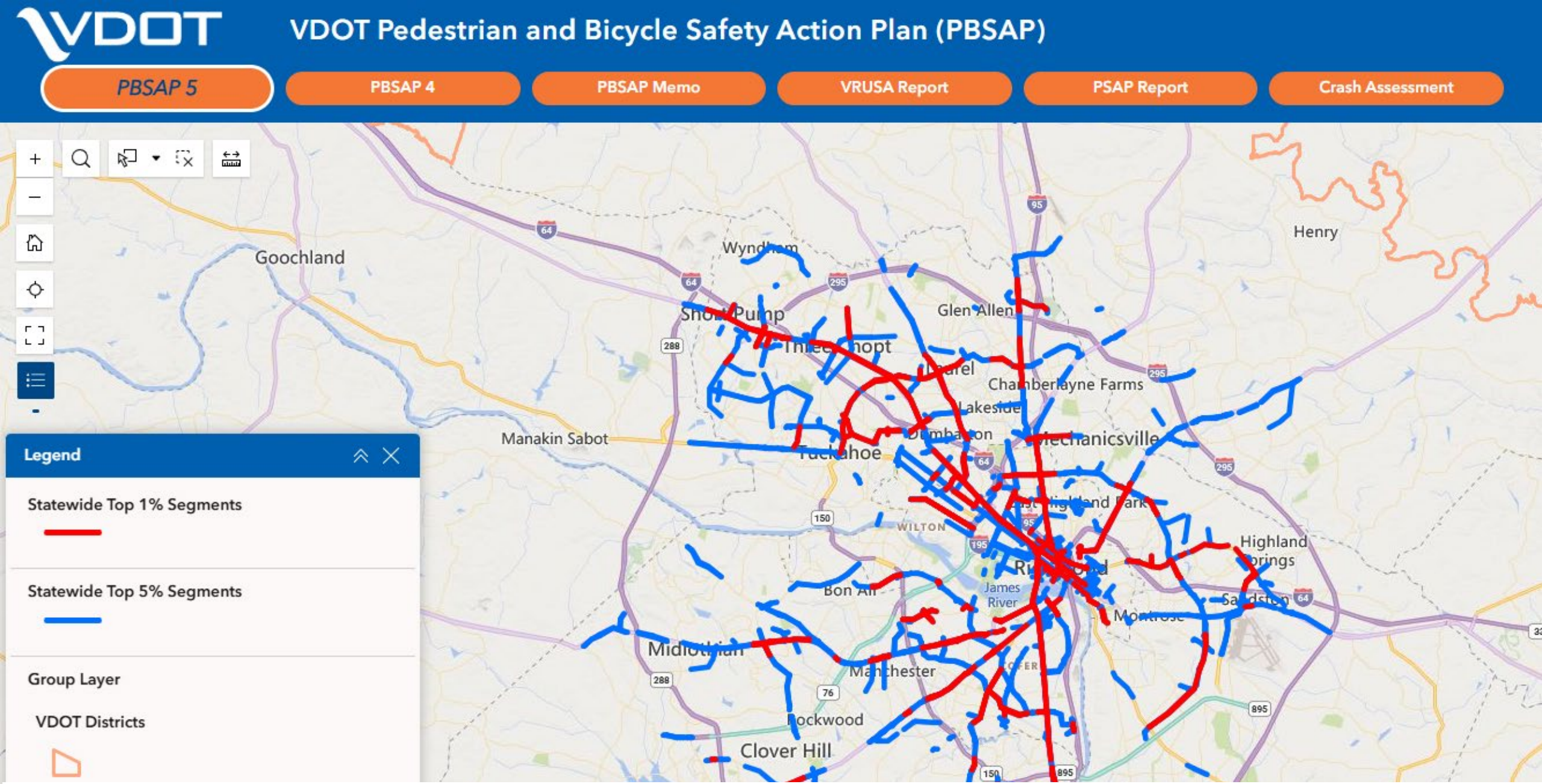
Arterials account for 30% of rural and 33% of urban VMT on non-limited access roadways, but**

81% of all fatalities took place on arterials

** Excludes limited access and work zone data* ***2022 data*

Pedestrian Bicycle Safety Action Plan (PBSAP) Analysis Risk Factors





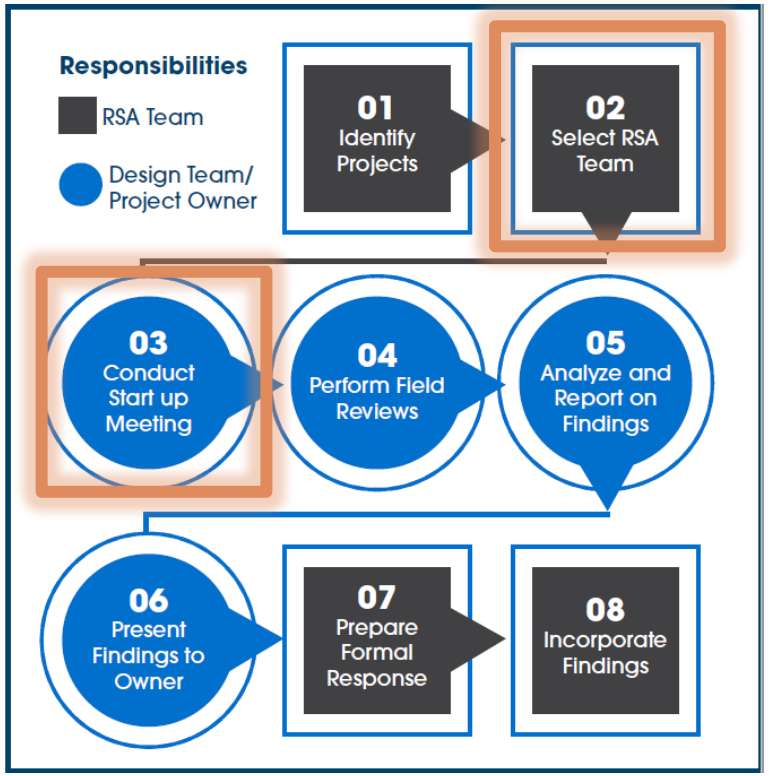
PBSAP Online Mapping Tool - http://bit.ly/VDOTPBSAP

PATHS – Road Safety Assessments

Conventional RSAs typically invite community experts and public health professionals as secondary participants.

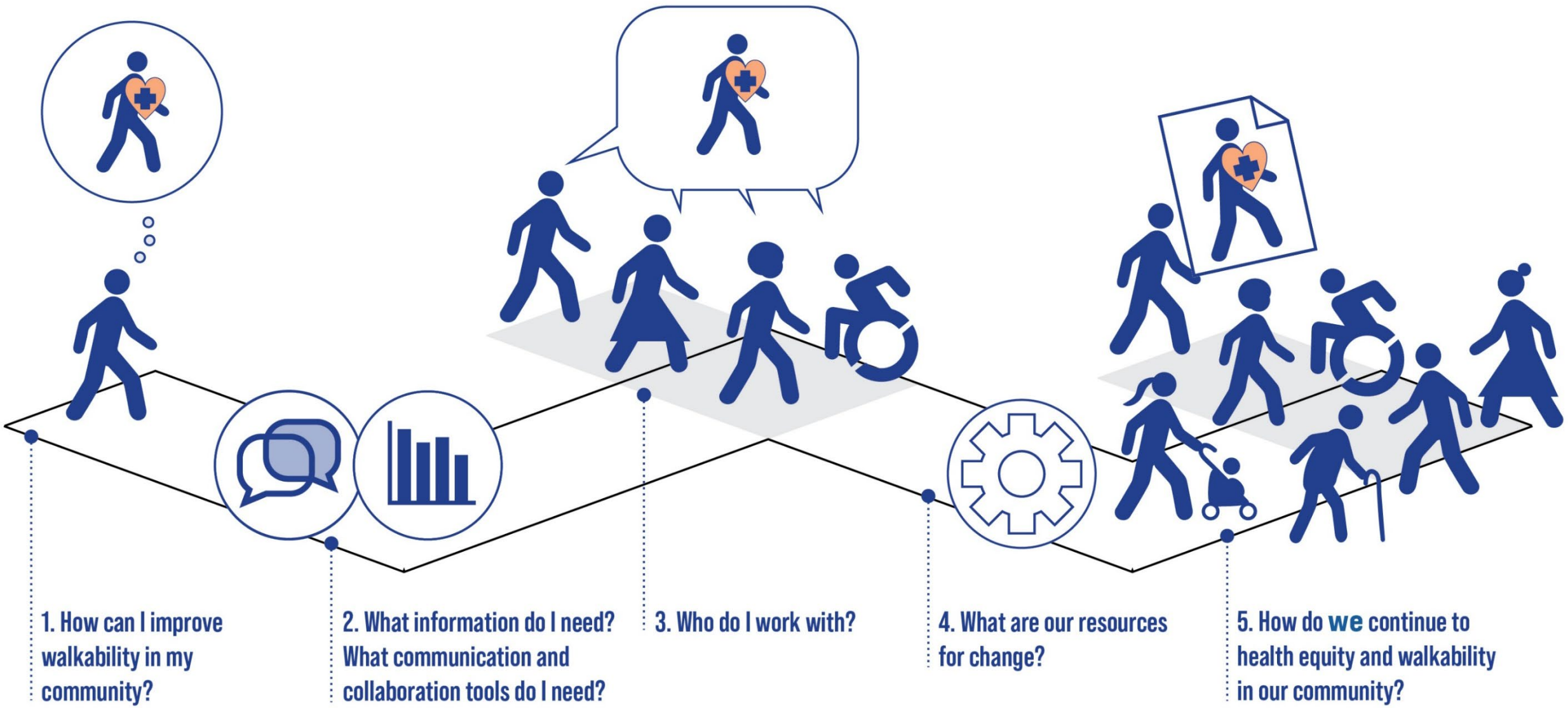
The PATHS RSAs **place public health and community experts as priority participants**—even as liaisons —on the same level as transportation engineers.

Prep/pre-field review meeting conversations expand to better describe pedestrian accessible destinations, health concerns, and complicating factors.



Source: FHWA

Who should be involved in the process?



VDOT Virginia Department of Transportation

Virginia Highway Safety Improvement Program (VHSIP) Proactive Systemic Initiatives for VDOT Owned/Maintained Roads:

Pedestrian Crossings

High visibility crosswalk with RRFB and median refuge island.

Improvements for signalized pedestrian crossing.

VDOT works hard to provide a roadway network that operates safely, efficiently, and effectively. In 2019, the Commonwealth Transportation Board approved the deployment of highly effective, low-cost safety improvements to help reduce serious injury and fatal crashes across the Commonwealth. This data-driven strategy focuses on proactively targeting locations with higher crash risk. The goal is not to wait for crashes to occur before we proactively treat high-risk locations on the roadway network!

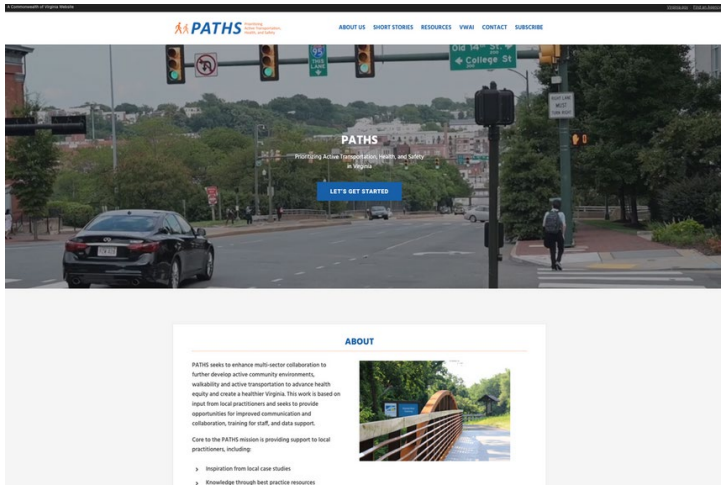
Everyone is a pedestrian at some point in their day, but unfortunately pedestrian crashes comprise a large proportion of Virginia's fatal crashes. Research has shown that enhanced crosswalk visibility can reduce pedestrian injury crashes up to 40 percent.[1] Through the **Pedestrian Crossing** initiative, VDOT is funding pedestrian crossing enhancements at all VDOT traffic signals identified within the *first version* of the Statewide Pedestrian Safety Action Plan (PSAP).

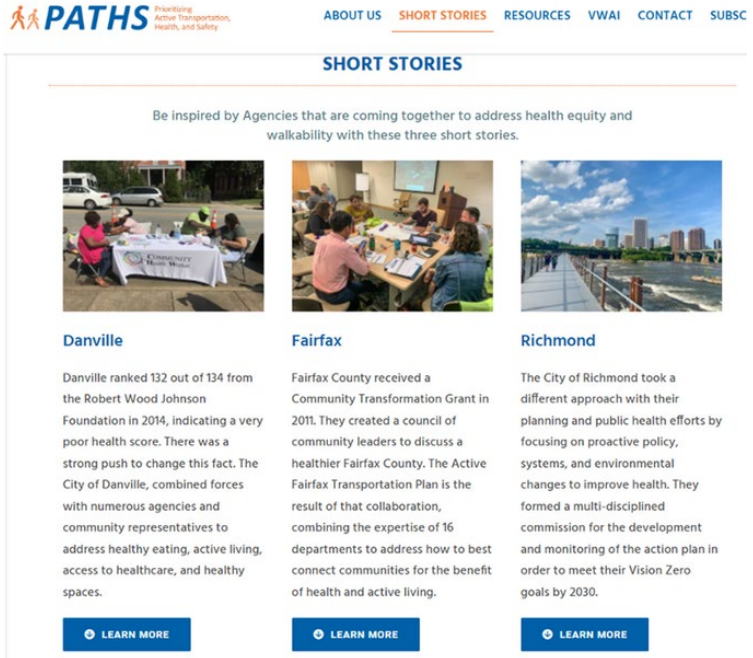
The focus of this initiative is to enhance pedestrian safety by installing and/or upgrading signalized pedestrian crossings. The typical improvements that can be considered for installation include: new or retrofit marked crosswalks, pedestrian signal heads with pedestrian countdown signals, Accessible Pedestrian Signals (APS) and Accessible Pedestrian Signal Detector (APD), and ADA-compliant curb ramps (if ramps are not currently present). All VDOT traffic signals located on the pedestrian priority corridors and crash clusters that are identified in VDOT's Pedestrian Safety Action Plan are eligible for treatment.

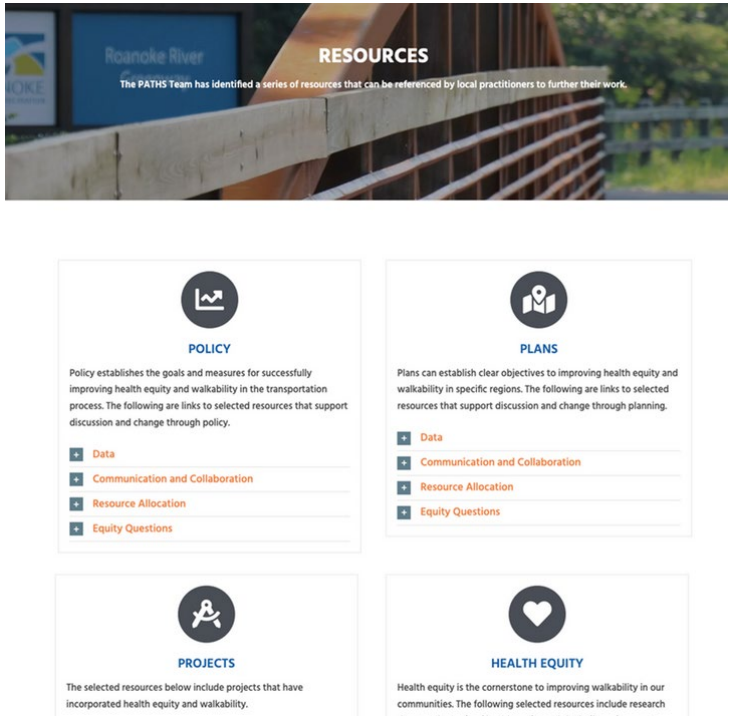
For any questions on inquiries on VHSIP, please email: hsiprogram@vdot.virginia.gov

Sign up for VHSIP email notifications to be notified of revised guidance, program updates, training opportunities, and more! Listserv Sign-up link: http://eepurl.com/hY1DSj

PATHS Website







https://virginiapaths.org

Questions?

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Lauren Blackburn
VHB
lblackburn@vhb.com

bit.ly/VASHSP

PBSAP 5.0: Pedestrian Bicycle Safety Action Plan

VRUSA Strategies & Actions

Vision Zero Louisville

by Mike Vaughn, Traffic Safety Branch Manager
Highway Safety Improvement Program
Kentucky Transportation Cabinet

TPM Webinar 30 | April 15, 2026

Today's Topics

- **Vision Zero Louisville**
  - Vulnerable Road User (VRU)-focused Road Safety Assessments (RSAs)
  - $15 million Progressive Design-Build project

TEAM KENTUCKY®
TRANSPORTATION CABINET

Kentucky's K & A Crash Statistics

	Statewide	Louisville / Jefferson County
Roadway Departure	55%	29%
Intersection	34%	54%
VRU	10%	21%
Other	14%	14%

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Kentucky's K & A Crash Statistics

	Statewide	Louisville / Jefferson County
Roadway Departure	55%	29%
Intersection	34%	54%
VRU	10%	21%
Other	14%	14%

TEAM KENTUCKY®
TRANSPORTATION CABINET

Kentucky's K Crash Statistics

	Statewide	Louisville / Jefferson County
Roadway Departure	61%	32%
Intersection	29%	47%
VRU	15%	31%
Other	10%	10%

TEAM KENTUCKY®
TRANSPORTATION CABINET

Kentucky's K Crash Statistics

	Statewide	Louisville / Jefferson County
Roadway Departure	61%	32%
Intersection	29%	47%
VRU	15%	31%
Other	10%	10%

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Vision Zero Louisville

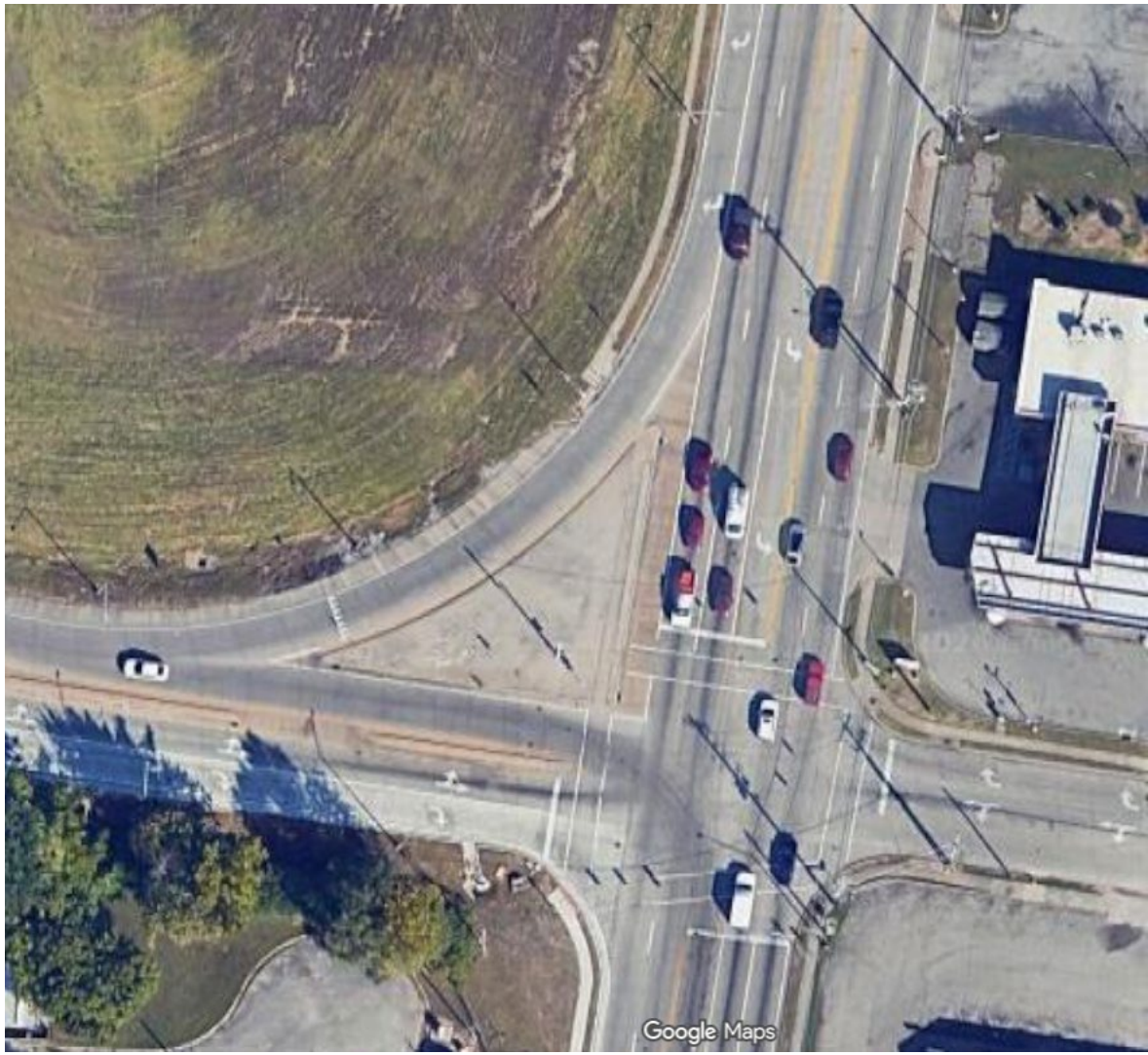
- VRU-focused RSAs
  - Began in early 2023
  - The RSA team consisted of:
    - Louisville DOT staff (planning, design, traffic operations)
    - Officers from the Louisville Metro Police Department
    - Emergency Medical Services staff
    - KY Office of Highway Safety staff (educational and enforcement liaisons)
    - KY Transportation Cabinet – District 5 and Central Office staff (planning, design, construction, maintenance, traffic operations, highway safety)
  - Goal
    - Identify a range of safety improvement opportunities for all road users, with a focus on VRUs

Vision Zero Louisville

- VRU-focused RSAs
  - Site selection
    - Year 1 (2023):
      - RSAs were performed at all locations that experienced a fatal or serious injury VRU crash
      - One critique – this type of site selection seemed a bit reactive
    - Year 2 (2024) – Hybrid approach:
      - RSAs were performed at locations that experienced a fatal or serious injury VRU crash (and had not previously had an RSA)
      - Other RSAs were performed at locations along Louisville's High Injury Network
    - Year 3 (2025):
      - RSAs were primarily performed along Louisville's High Injury Network

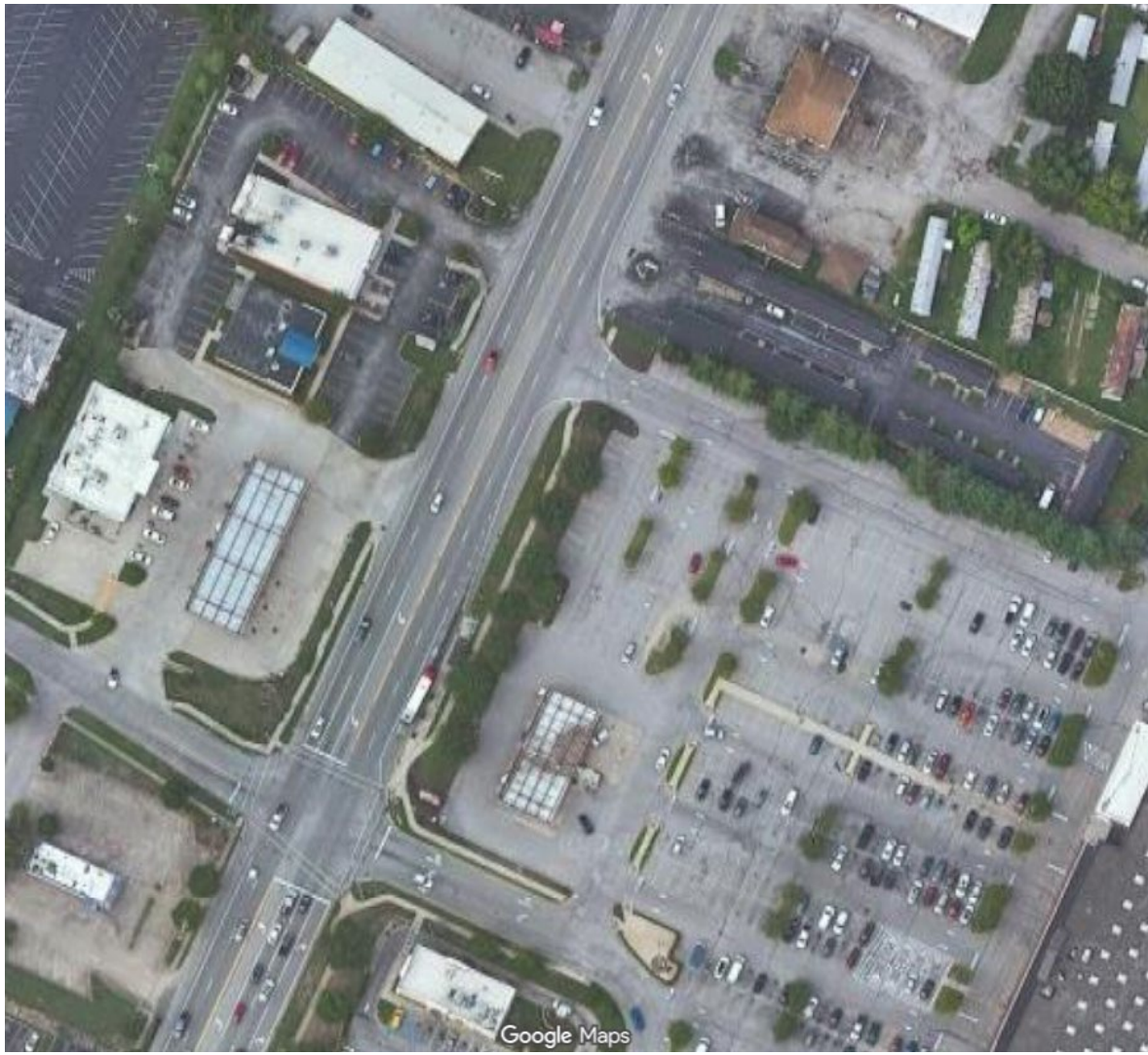
Vision Zero Louisville

- VRU-focused RSAs
  - Some key findings:
    - VRUs have trouble navigating interchanges, especially those
      - In lower-income areas (likely due to more people walking & biking)
      - With ramps that have free-flow traffic



Vision Zero Louisville

- VRU-focused RSAs
  - Some key findings:
    - VRUs have trouble navigating interchanges, especially those
      - In lower-income areas (likely due to more people walking & biking)
      - With ramps that have free-flow traffic
    - VRUs have trouble crossing wider roadways, especially those
      - With higher speed limits (45 mph+)
      - With higher functional classification
      - 4 or more through lanes
      - Without a median refuge (may indicate little to no access management)

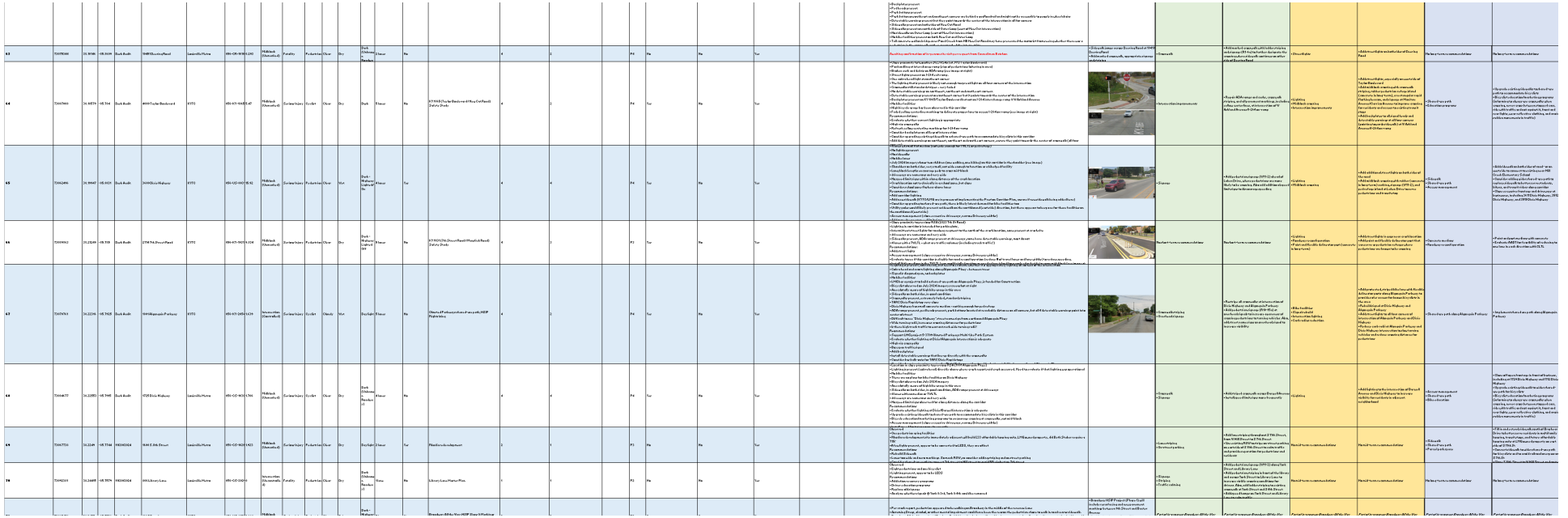


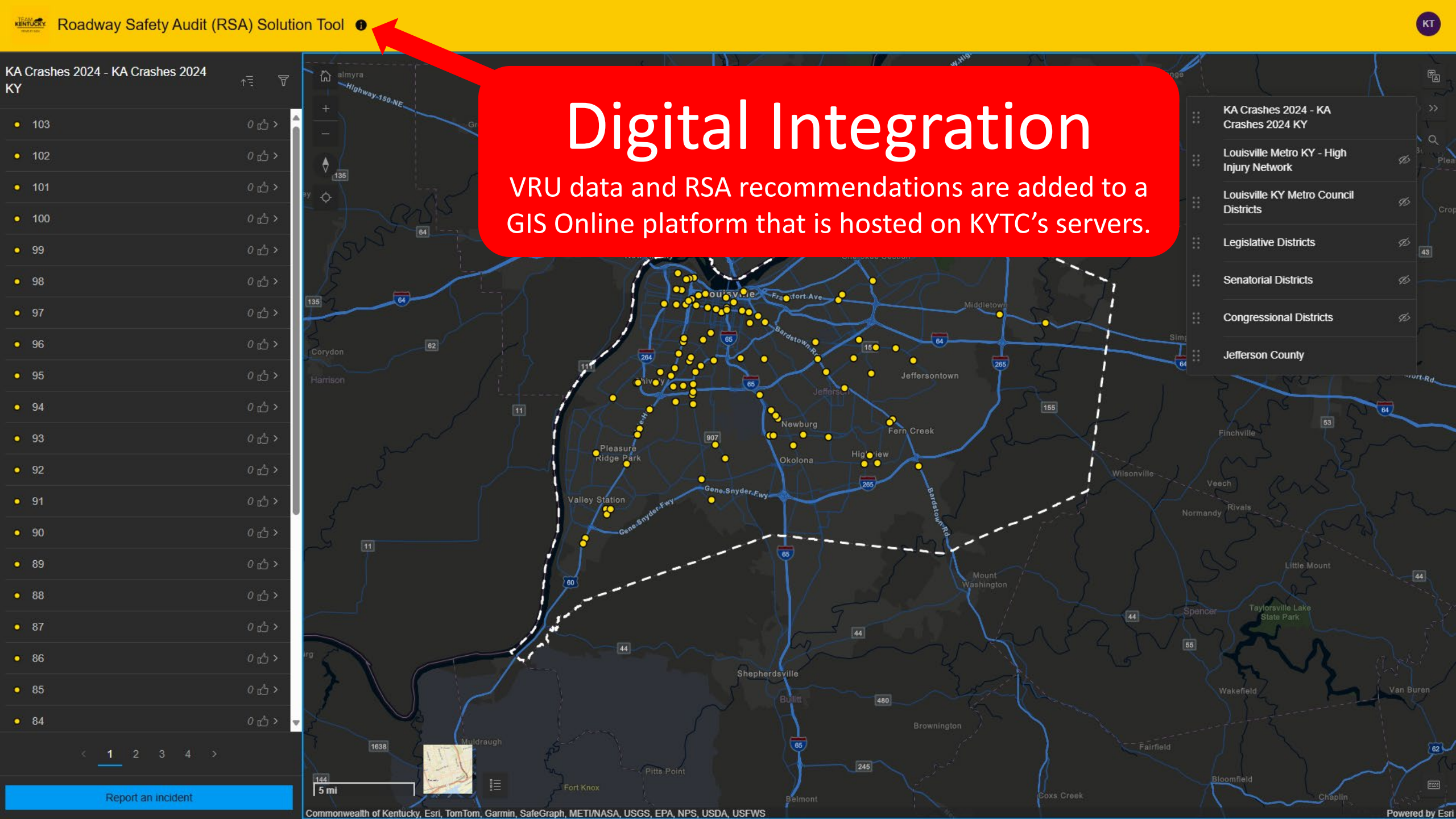
Vision Zero Louisville

- VRU-focused RSAs
  - Top recommendations:
    - Curb extensions (aka curb bump outs)
    - High-visibility crosswalks
    - Improve VRU facilities
      - Sidewalks, bike lanes, shared use paths
    - Install / improve lighting at intersections and mid-block crosswalks
    - Roadway reconfiguration (aka road diet)
    - Speed management

Vision Zero Louisville

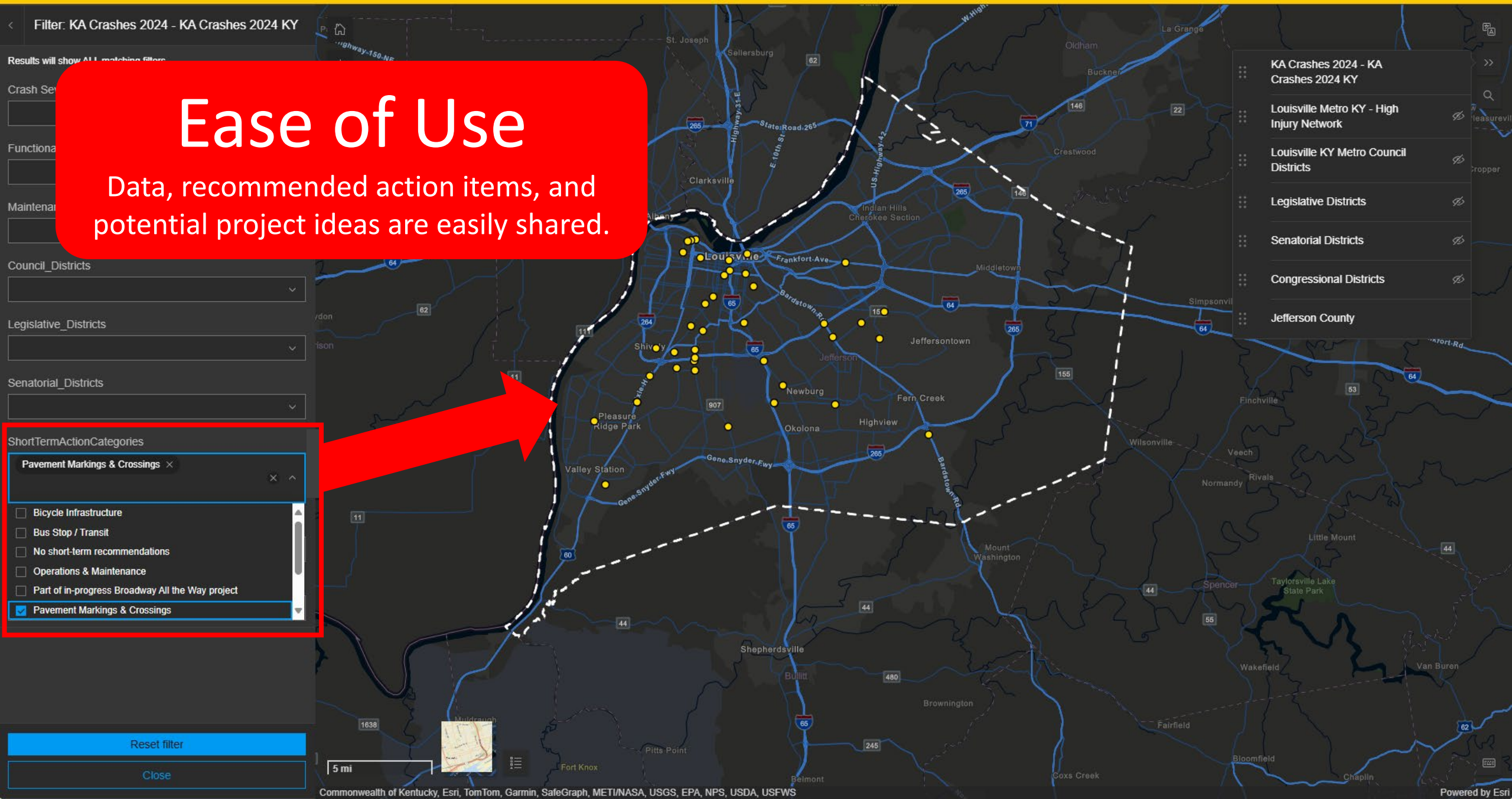
- VRU-focused RSAs
  - All data and RSA recommendations have been:
    - Compiled into a “master” spreadsheet
    - Master spreadsheet has been used to create a VRU RSA Story Map

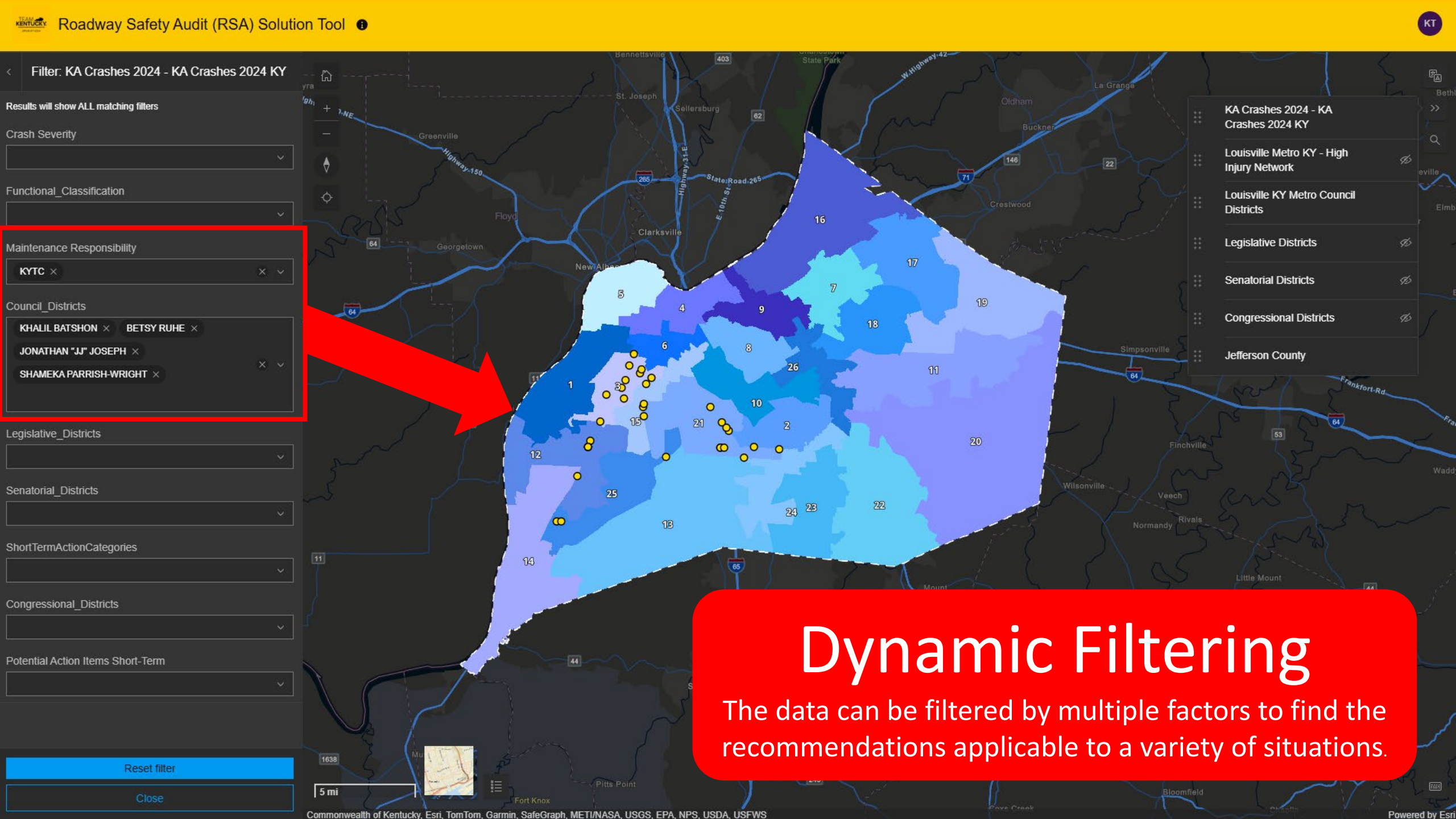


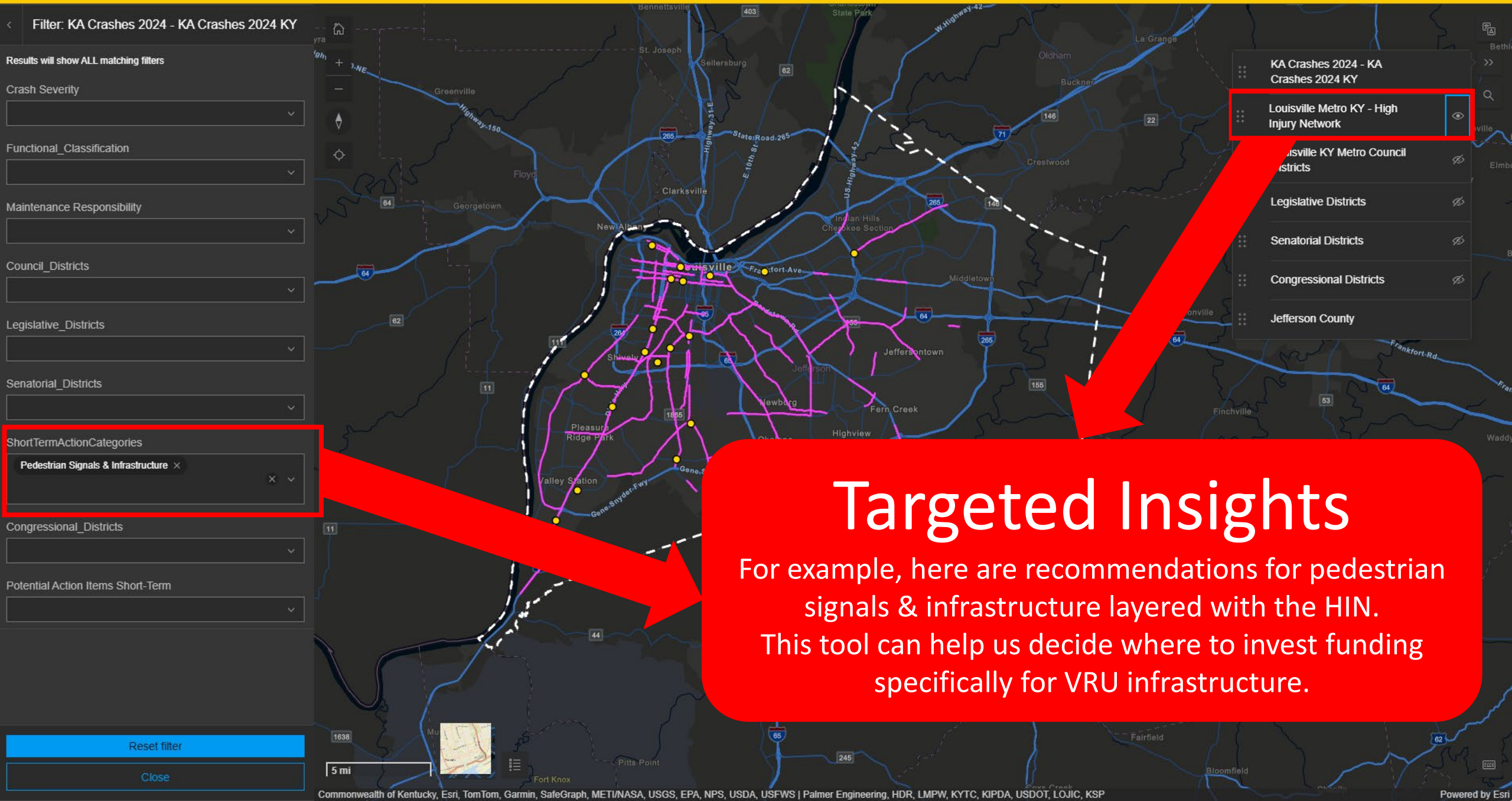

Roadway Safety Audit (RSA) Solution Tool
KT
KA Crashes 2024 - KA Crashes 2024 KY
103
102
101
100
99
98
97
96
95
94
93
92
91
90
89
88
87
86
85
84
1
2
3
4
Report an incident
Digital Integration
VRU data and RSA recommendations are added to a GIS Online platform that is hosted on KYTC's servers.
KA Crashes 2024 - KA Crashes 2024 KY
Louisville Metro KY - High Injury Network
Louisville KY Metro Council Districts
Legislative Districts
Senatorial Districts
Congressional Districts
Jefferson County
Louisville
Jeffersontown
Middletown
Newburg
Fern Creek
Okolona
Pleasure Ridge Park
Valley Station
Shepherdsville
Mount Washington
Spencer
Taylorsville Lake State Park
Wilsonville
Finchville
Veech
Normandy
Rivals
Little Mount
Wakefield
Van Buren
Fairfield
Bloomfield
Chaplin
Brownington
Coxs Creek
Belmont
Fort Knox
Pitts Point
Muldraugh
Harrison
Corydon
5 mi
Commonwealth of Kentucky, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS
Powered by Esri

Ease of Use

Data, recommended action items, and potential project ideas are easily shared.




Roadway Safety Audit (RSA) Solution Tool
KT
Filter: KA Crashes 2024 - KA Crashes 2024 KY
Results will show ALL matching filters
Crash Severity
Functional_Classification
Maintenance Responsibility
KYTC
Council_Districts
KHALIL BATSHON
BETSY RUHE
JONATHAN "JJ" JOSEPH
SHAMEKA PARRISH-WRIGHT
Legislative_Districts
Senatorial_Districts
ShortTermActionCategories
Congressional_Districts
Potential Action Items Short-Term
Reset filter
Close
KA Crashes 2024 - KA Crashes 2024 KY
Louisville Metro KY - High Injury Network
Louisville KY Metro Council Districts
Legislative Districts
Senatorial Districts
Congressional Districts
Jefferson County
Dynamic Filtering
The data can be filtered by multiple factors to find the recommendations applicable to a variety of situations.
5 mi
Commonwealth of Kentucky, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS
Powered by Esri


Filter: KA Crashes 2024 - KA Crashes 2024 KY
Results will show ALL matching filters
Crash Severity
Functional_Classification
Maintenance Responsibility
Council_Districts
Legislative_Districts
Senatorial_Districts
ShortTermActionCategories
Pedestrian Signals & Infrastructure
Congressional_Districts
Potential Action Items Short-Term
Reset filter
Close
KA Crashes 2024 - KA Crashes 2024 KY
Louisville Metro KY - High Injury Network
Louisville KY Metro Council Districts
Legislative Districts
Senatorial Districts
Congressional Districts
Jefferson County
Targeted Insights
For example, here are recommendations for pedestrian signals & infrastructure layered with the HIN.
This tool can help us decide where to invest funding specifically for VRU infrastructure.
5 mi
Commonwealth of Kentucky, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS | Palmer Engineering, HDR, LMPW, KYTC, KIPDA, USDOT, LOJIC, KSP
Powered by Esri

Vision Zero Louisville

- Progressive Design-Build
  - $15 million – funding by HSIP
  - Allows for best value / flexible countermeasure selection
  - Sites and countermeasure selection based on data from:
    - VRU RSA Story Map
    - Louisville's High Injury Network
    - Louisville's Speed Management Plan
    - Louisville's Vision Zero Safety Report, including:
      - Technical appendices
      - Street rightsizing implementation plan

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Vision Zero Louisville

- Progressive Design-Build
  - Overall goal: Determine how to achieve the best value in implementing $15 million in safety investment
  - The progressive design-build team determines:
    - Which countermeasures
    - Which locations
    - How to bundle construction activities to achieve:
      - Economies of scale
      - Efficient construction scheduling
      - Minimize traffic delays due to work zones

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Vision Zero Louisville

- What makes these efforts noteworthy?

Vision Zero Louisville

- What makes these efforts noteworthy? **Partnership**

Vision Zero Louisville

- What makes these efforts noteworthy? **Partnership**
  - The VRU-focused RSAs:
    - Multidisciplinary team, working together to review data and site conditions to better understand the underlying challenges and potential safety improvement opportunities

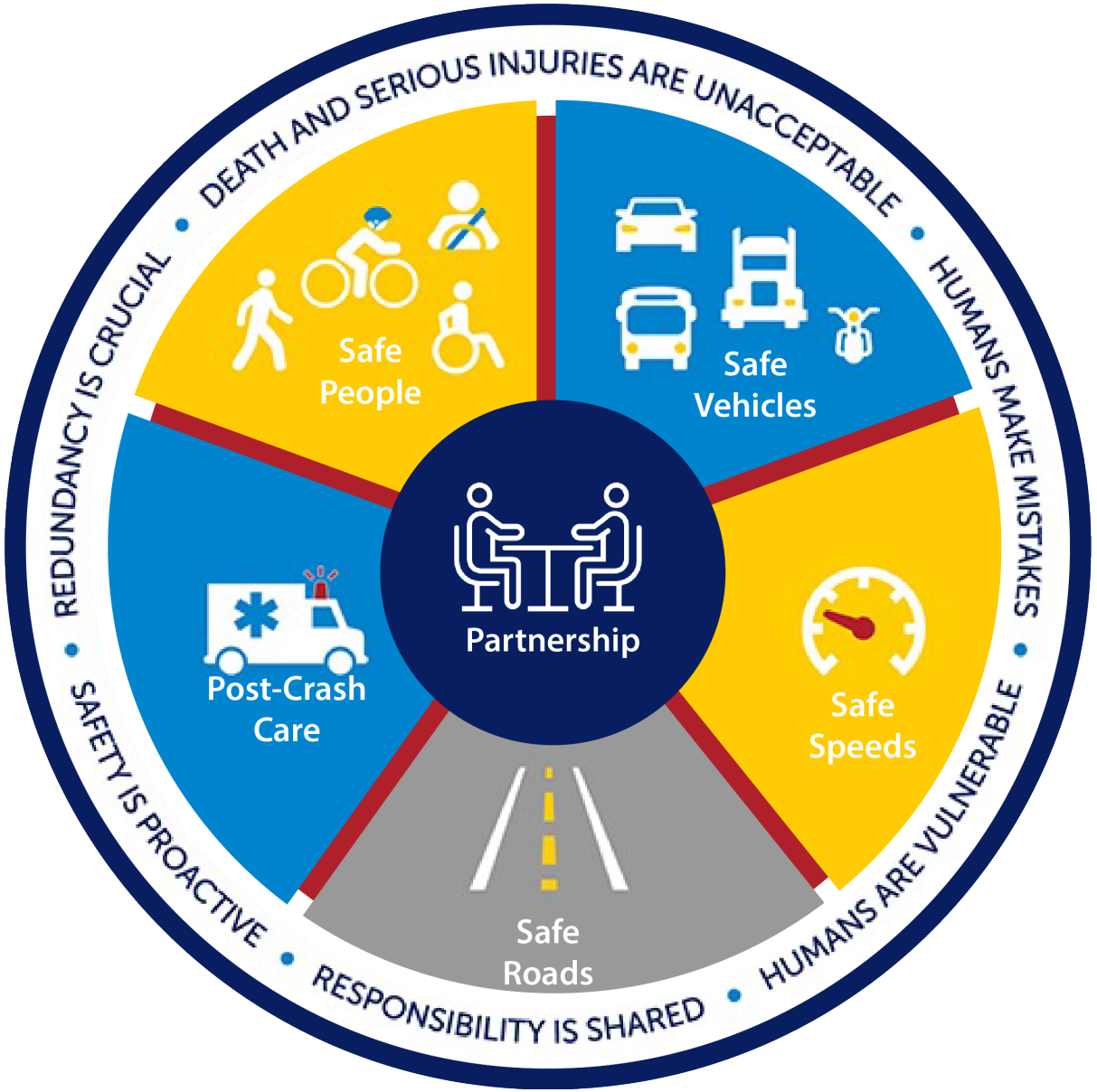
Vision Zero Louisville

- What makes these efforts noteworthy? **Partnership**
  - The VRU-focused RSAs:
    - Multidisciplinary team, working together to review data and site conditions to better understand the underlying challenges and potential safety improvement opportunities
  - The progressive design-build project:
    - Brings together planners, designers, traffic operations, and maintenance staff with in-house construction staff and the contractor team to work as a group to determine the “what, where, and how” to achieve the best value in implementing $15 million in safety investment

Vision Zero Louisville

- What makes these efforts noteworthy? **Partnership**
  - The VRU-focused RSAs:
    - Multidisciplinary team, working together to review data and site conditions to better understand the underlying challenges and potential safety improvement opportunities
  - The progressive design-build project:
    - Brings together planners, designers, traffic operations, and maintenance staff with in-house construction staff and the contractor team to work as a group to determine the “what, where, and how” to achieve the best value in implementing $15 million in safety investment
  - The relationship between the Louisville DOT and the Kentucky Transportation Cabinet has been strengthened by these efforts

The Safe System Approach



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TRANSPORTATION CABINET

@KYTC

@kytc120

@KYtransportation

@KYtransportation

transportation.ky.gov

Questions?

Kentucky Transportation Cabinet

Highway Safety Improvement Program (HSIP)

KYTC-HSIP@ky.gov

Mike Vaughn

Mike.Vaughn@ky.gov

Kansas' Drive To Zero

AASHTO Q1 TZD Subcommittee Meeting
March 12, 2026

Vanessa Spartan, AICP, RSP_1
KDOT, Chief of Transportation Safety

- Kansas' Organizational Structure
- Kansas Drive To Zero
  - Engagement & Mission Alignment
  - Tools for Decision-making
  - Safety Co-Benefits
  - Post-Crash Care Partners

- Kansas' Organizational Structure

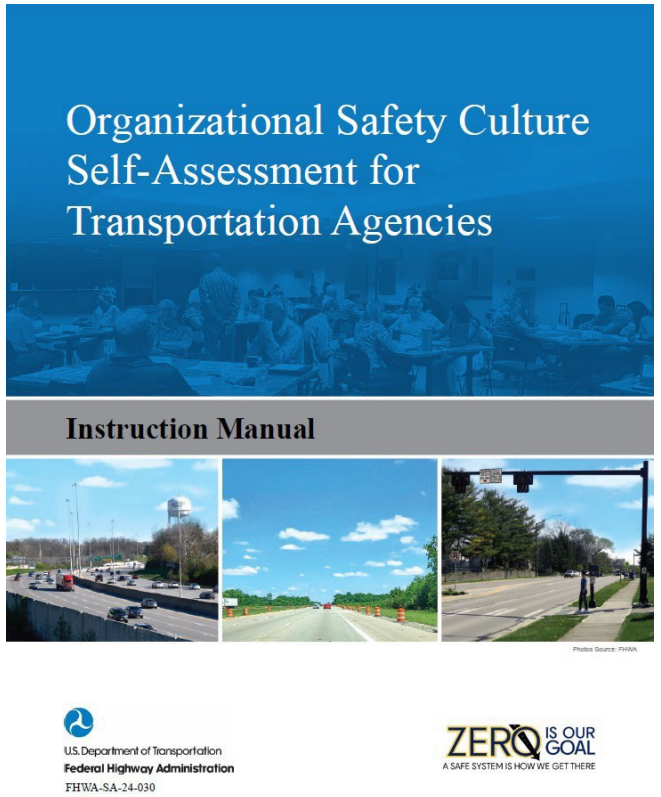
KDOT's Organizational Structure

- Division of Planning and Development
  - Bureau of Transportation Planning
  - Bureau of ITS
  - **Bureau of Transportation Safety**
    - FHWA HSIP and SHSP
    - Highway Safety Office
    - All 402 and 405 Programs
    - Traffic Records Coordination for State
    - State Safety Set-asides
    - State and FARS Crash Data
    - Safety SME for Agency

Safety Culture Assessment

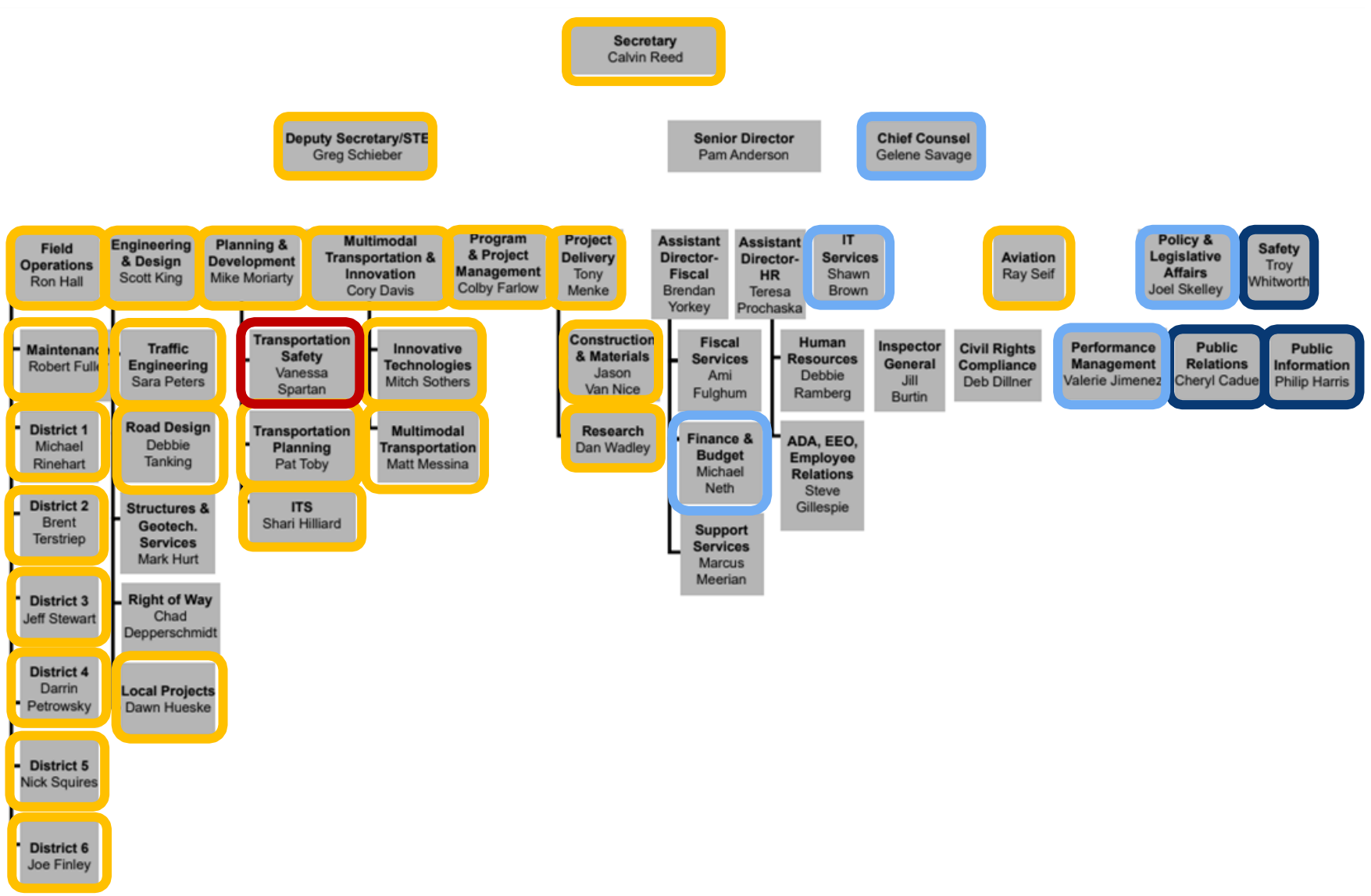
- 2023 Self Assessment Workshop
  - Conducted by FHWA Office of Safety + Consultants
  - Programmatic Integration of Safety
  - Internal Safety Culture

- Outcomes
  - SAFE-T Team
  - Informed DTZ Plan efforts



DRIVE TO ZERO KANSAS TRAFFIC DEATHS

KDOT's Organizational Structure



Transportation Safety

Programmatic

Culture

Other

DRIVE TO ZERO KANSAS TRAFFIC DEATHS

Kansas' Safety Organizational Structure

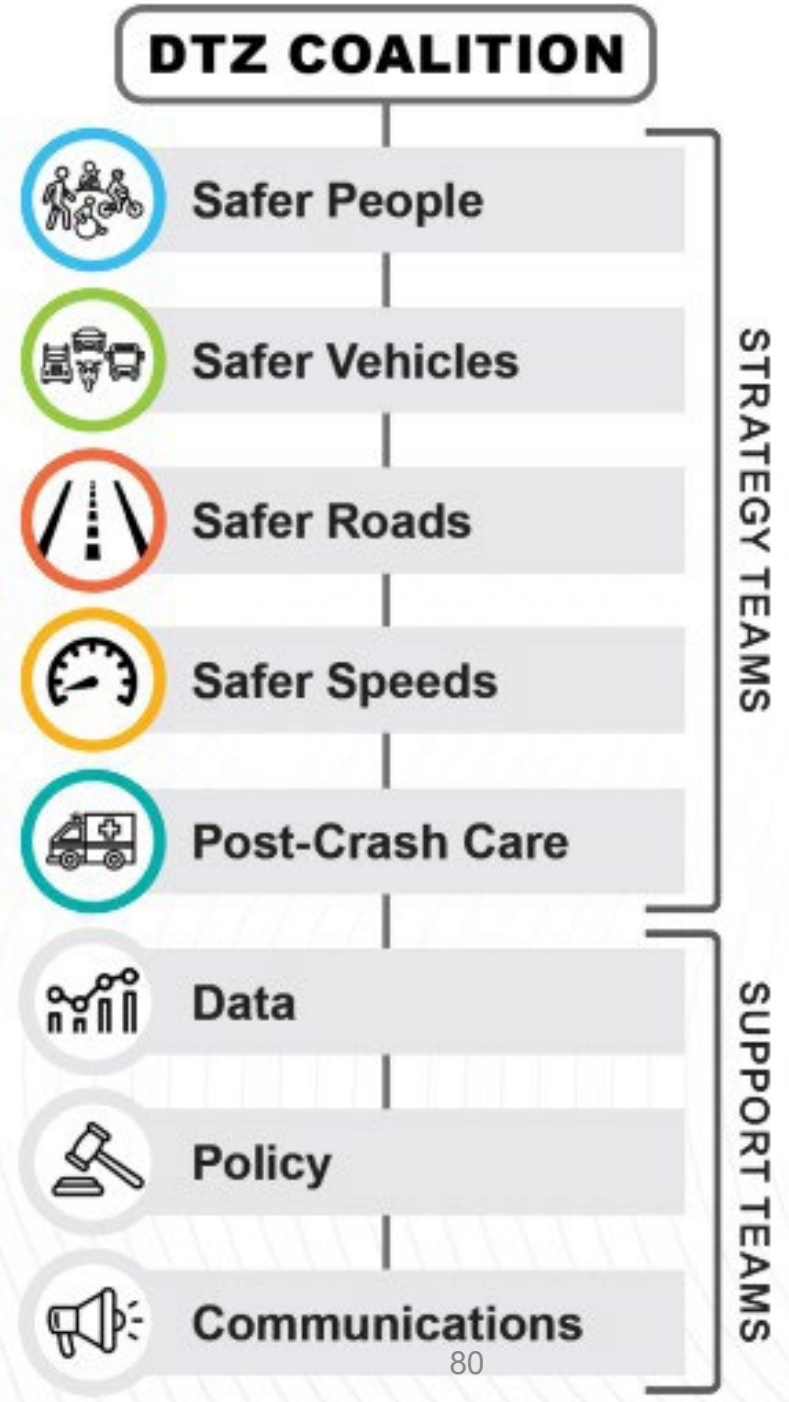
- **Other State Agencies We <u>Regularly</u> Work With**
  - KS Highway Patrol → Commercial Motor Vehicle Safety (FMCSA)
  - KS Board of EMS
  - KS Board of 911
  - KS Department of Revenue → Driver and Vehicle Licensing
  - KS Bureau of Investigation
  - KS Attorney General's Office
  - KS Department of Health and Environment
  - KS Turnpike Authority
  - KS Infrastructure Hub*

DRIVE TO ZERO KANSAS TRAFFIC DEATHS

DTZ Coalition Member Organizations

Stakeholder Teams

- ***Strategy Teams*** work on developing and implementing strategic initiatives.
- ***Support Teams*** provide technical expertise and resources to advance strategic initiatives.



Tools for Decision-making

Learn more at
https://www.ksdot.gov/safety-data

- Drive To Zero Dashboard
- Safety Corridor Dashboard
- Vulnerable Road User Safety Assessment Tool
- Timeliness of Post-Crash Care Tool
- Crash Facts Book
- State Route Crash Dashboard (internal use)
- Safety Performance Analysis (internal use)

DTZ Plan Strategic Initiatives

DTZ Plan Strategic Initiatives

Learn more at https://www.ksdot.gov/drivetozero

SAFER ROADS

SR 1	"Safety Co-Benefits" across Transportation Programs
SR 2	**HRUR Program**
SR 3	**Prioritizing Implementation of Local Safety Plans**
SR 4	Context-Appropriate Design Guidance/Policies
SR 5	KDOT District Safety Plans

SAFER VEHICLES

SV 1	**Advanced Vehicle Safety Feature Promotion**
SV 2	AV Readiness
SV 3	**CV Enhancements and Pilots**
SV 4	Assessment of Vehicle Inspection Requirements

SAFER SPEEDS

SS 1	**Excessive Speeding Initiative**
SS 2	**Safety Camera Pilot**
SS 3	Speed Feedback Sign Program
SS 4	KDOT Speed Policies and Practices
SS 5	Transition Zone Effectiveness

SAFER PEOPLE

SP 1	**Safety Corridor Pilot Program**
SP 2	**Educational Initiatives on Proven Countermeasures**
SP 3	Traffic Safety Culture Initiative
SP 4	Impaired Driving Testing Improvements

POST-CRASH CARE

PCC 1	**Assessment of Timeliness and Quality of Care**
PCC 2	**Linking Crash, EMS, and Trauma Data**
PCC 3	Outreach to Prosecutors and Judicial Partners
PCC 4	TIM Improvements/ Program Expansion
PCC 5	CAD-to-CAD Interoperability

Bold indicates strategies identified as Priority by DTZ Coalition and Strategy Team members.

Figure 15. Summary of DTZ Plan Strategies.

DRIVE TO ZERO KANSAS TRAFFIC DEATHS

Safer Roads

Chair: Kristi Eichkorn, Kansas Turnpike Authority | **Owner:** Haley Dougherty, KDOT

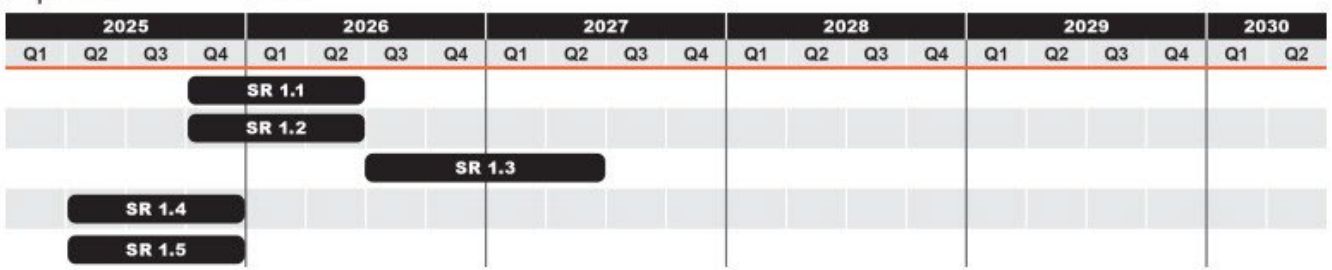
SR 1: "SAFETY CO-BENEFITS" ACROSS TRANSPORTATION PROGRAMS

Enhance and improve incorporation of safety co-benefits into existing transportation programs and/or processes beyond traditional safety set-aside.

FHWA Special Rules: VRU, ODP, HRRR

#	Action Step Leader	Partner(s)	Description	Outputs / Outcomes	Support Teams	Funding Source	Target Date
1.1	KDOT		Institutionalize the use of safety performance analysis in all phases of the DOT lifecycle. This should begin with using safety analysis to identify needs and projects, as well as using Highway Safety Manual (HSM) within the study phase of a project.	Standardization of safety performance analysis in project identification and in study phase		NA	June 2026
1.2	KDOT		Identify transportation programs beyond safety set-aside programs (e.g., HSIP) for opportunities to improve safety co-benefits.	Tracking of funding spent on safety improvements and number or number of safety projects		NA	June 2026
1.3	KDOT		Identify the stage of the project lifecycle where these programs function and develop checklists, tools, or changes to processes to support these programs.	Development of checklists or tools		Existing HSIP Funding	June 2027
1.4	KDOT	• KTA • Local Agencies • LKM / KAC • LTAP • FHWA	Beyond KDOT, share best practices with local agencies (cities and counties) and KTA to consider practices to improve safety co-benefits across their program areas. An example could be adjusting project selection processes to yield the greatest safety benefit. Coordinate with FHWA Resource Center.	Training materials and resources	Communication	Existing HSIP Funding	December 2025
1.5	KDOT	• MPOs • FHWA	For MPOs specifically, set up a workshop or webinar on incorporating safety across program areas. Consider separate trainings for Transportation Management Area (TMA) MPOs versus non-TMA MPOs.	Training materials and resources	Communication	Existing HSIP Funding	December 2025

Implementation Timeline:



Overlap with SSA Objectives:	
Safer People	✓
Safer Roads	✓
Safer Speeds	✓
Safer Vehicles	
Post-Crash Care	

Overlap with Emphasis Areas:	
Roadway Departure	✓
Occupant Protection	
Impaired Driving	
Older Drivers	✓
Intersections	✓
Local Roads	✓
Teen Drivers	
VRUs (Pedestrians & Cyclists)	✓
Speeding	✓
Distracted Driving	
Motorcyclists	
Commercial Motor Vehicles (CMVs)	✓

Supporting Data: STIP - Programs with Safety Benefit

The following programs have been identified within the STIP as referencing safety as a benefit.

Category	Programs with Safety Benefit	
Preservation	Pavement Marking	Railroad Crossing Surfacing
	Preservation Plus	Signing
Modernization	Clear Zone Safety	KCC Railroad Crossing
	Corridor Management	Miscellaneous for Modernization
	General Safety Improvements	Resurfacing with Improvements
	Guardrail Improvements	Safety (On-System Intersections)
	Highway Lighting	Strategic Safety Improvement Program
	Interstate / Non-Interstate Roadway Geometric Improvements	
Expansion	Cost Share	Non-Interstate Capacity Improvements
	Interstate Capacity Improvements	Intelligent Transportation Systems
Local Construction	City Connecting Link Improvement Program	Safe Routes to School
	Federal Safety Projects	Transportation Alternatives / Enhancement
	Railroad/Highway Crossing Program	

#	Action Step Leader	Partner(s)	Description
1.1	KDOT		Institutionalize the use of safety performance analysis in all phases of the DOT lifecycle. This should begin with using safety analysis to identify needs and projects, as well as using Highway Safety Manual (HSM) within the study phase of a project.
1.2	KDOT		Identify transportation programs beyond safety set-aside programs (e.g., HSIP) for opportunities to improve safety co-benefits.
1.3	KDOT		Identify the stage of the project lifecycle where these programs function and develop checklists, tools, or changes to processes to support these programs.
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1.5	KDOT	• MPOs • FHWA	For MPOs specifically, set up a workshop or webinar on incorporating safety across program areas. Consider separate trainings for Transportation Management Area (TMA) MPOs versus non-TMA MPOs.

SR 1.4: "Safety Co-Benefits"

Available on YouTube

Local Agency Webinar | February 13, 2026

"From Policy to Pavement: Embedding Safety in All We Do"

Theme A: Commitment to Safety	Theme B: Policies and Budgeting	Theme C: Design and Project Procedures	Theme D: Land Use / Transportation Integration
• Training elected officials and agencies • Aligning emergency services goals	• Expanding funding sources and allocations for safety • Speed management	• Reviewing design guidelines and standards • Establishing a hierarchy of treatment selection	• Promoting multimodal network design • Right-sizing infrastructure • Safety in development review and approval processes

SR 1.5: "Safety Co-Benefits"

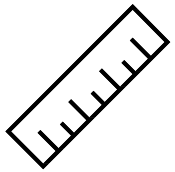
Kansas MPO Safe System Integration Workshop | April 20, 2026

- Identify **challenges** and **opportunities** to integrate safety in the transportation planning process
- Pre-Workshop “Homework” – MPO staff will be asked to complete a **needs assessment** in advance

Assessment Components

UNDERSTANDING

Create awareness of the activities to implement a Safe System aligned MPO program.



BASELINE

Adress how and where your MPO is addressing Safe System Approach activities.

IDENTIFY

Inventory successes and gaps across MPO safety programs.

ACTION

Discus successes and challenges at MPO workshops to inform a SSA aligned program.

SR 1.2: "Safety Co-Benefits"

- **Identified 6 Divisions/Bureaus to create additional safety benefit in their programs and processes**
  - Held meetings with program managers to identify opportunity areas
  - Developing tasks and work plans

- **Cross-Cutting Action Items**
  - Integrate crash, risk, and asset condition data across programs
  - Expand network screening use (including VRU and nighttime crashes)
  - Update standards to consistently include proven safety countermeasures
  - Improve coordination between preservation, traffic engineering, and local programs
  - Develop a clear safety definition for local programs
  - Create guidance and eligible countermeasure lists for reviewers
  - Document existing safety practices and communicate progress

SR 1.2: "Safety Co-Benefits"

- **Division of Program and Project Management**
  - Worked with to identify candidate programs for increased benefit

  - **Bureau of Economic Development**
    - *Cost Share Program*
      - Enhance project scoring criteria
      - Clearer definition and guidance on safety benefits
      - Identify HSIP eligible projects in application list

SR 1.2: "Safety Co-Benefits"

- **Division of Project Delivery**
  - **Bureau of Construction and Materials**
    - *1R & Preservation Plus Programs*
      - Safety enhancements in pavement preservation activities
      - Interest in proactive safety identification
      - Potential systematic treatments: friction, rumble strips, shoulders, markings
      - Desire for plug-and-play safety worksheet
      - Network screening (LOSS 4) may support candidate selection

SR 1.2: "Safety Co-Benefits"

- **Division of Engineering & Design**
  - **Bureau of Traffic Engineering**
    - *Pavement Marking Program*
      - New tiered scoring and selection process
      - Potential new standards updates (stop bars, extension lines, in-lane markings)
    - *Lighting Program*
      - Use of nighttime crashes and network screening data for proactive identification
    - *Signing Program*
      - Opportunity for systemic sign replacement tied to risk (e.g., regulatory and warning signs)
  - **Bureau of Local Projects**
    - *CCLIP and K1/2/3R Programs*
      - Network screening for local system and desktop crash reviews
      - Revisit site visit questions to capture safety improvements
      - Provide list of HSIP-eligible safety countermeasures

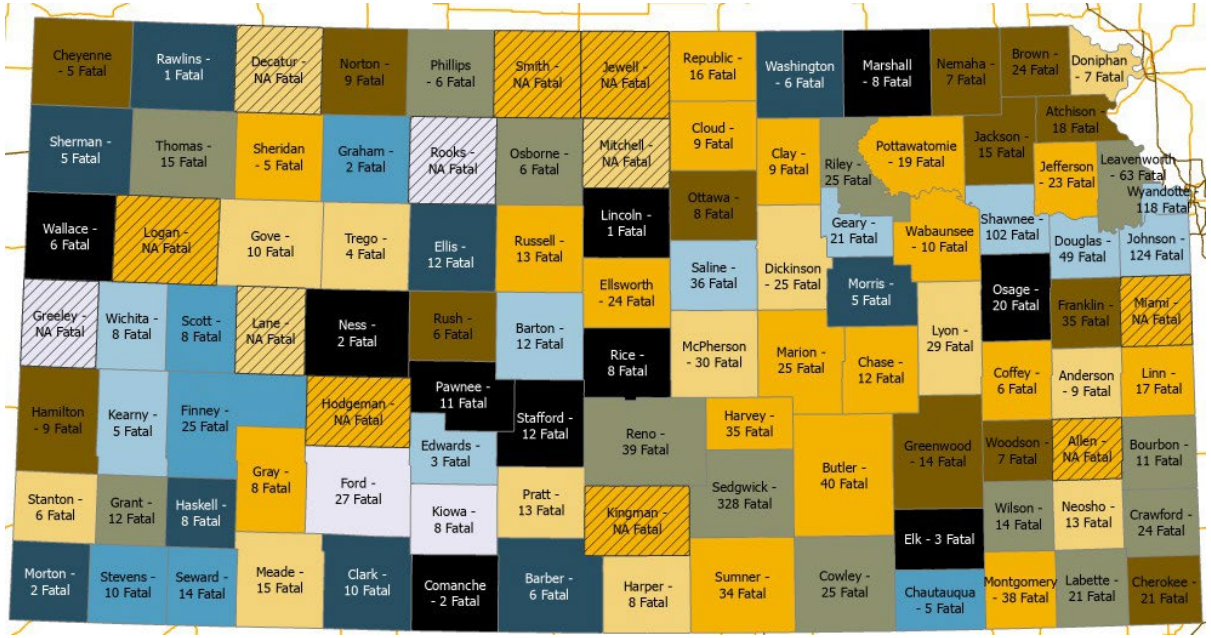
SR 1.2: "Safety Co-Benefits"

- **Division of Multimodal Transportation and Innovation**
  - **Bureau of Multimodal Programs**
    - VRU Safety Assessment Tool
    - TA Programming > HSIP funds
    - SRTS Education and Enforcement Programming > NHTSA funds
    - High Risk Urban Roads – Phase 2: VRU Materials Only Program
  - **Bureau of Innovative Technologies**
    - *Innovative Technologies Grant Program*
      - Scoring criteria and project identification
    - AV and CV initiatives in Drive To Zero Plan

PCC 1: Assessment of Timeliness and Quality of Care

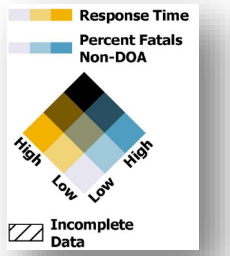
Internal Partners

- Bureau of ITS
- Division of Field Operations
- Division of Aviation



Black = *average* response time > 60 min and % non-DOA fatalities > 43% (US average)

Brown = *average* response time > 60 min and % non-DOA fatalities > 28% (KS average)



DRIVE TO ZERO KANSAS TRAFFIC DEATHS

DRIVE TO ZERO
KANSAS TRAFFIC DEATHS

Alone we cannot solve this problem.
Together we can.

DTZ Chair: Secretary Calvin Reed, KSDOT

DTZ Owner: Vanessa Spartan, KSDOT

Email: DriveToZero@ks.gov

Web: www.ksdot.gov/drivetozero

Save the Date!

- To learn more about the Committee on Performance Based Management, access the series archive, and explore performance management resources, visit the TPM Portal: https://www.tpm-portal.com/
- Join us for an upcoming webinar and subcommittee meeting!
  - **TPM Webinar 31**
    - June 17th, 2026: Access as Performance
  - **TPM Webinar 32**
    - August 19th, 2026: Developing a Model Performance-Based Plan
- **Thank you!!**