WVAMPO – WVDOH – WV LTAP

Transportation Planning Conference

May 22, 2024

HEPMPO REGIONAL SAFETY ACTION PLAN

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HEPMPO Website
https://hepmpo.com/

Final Plan

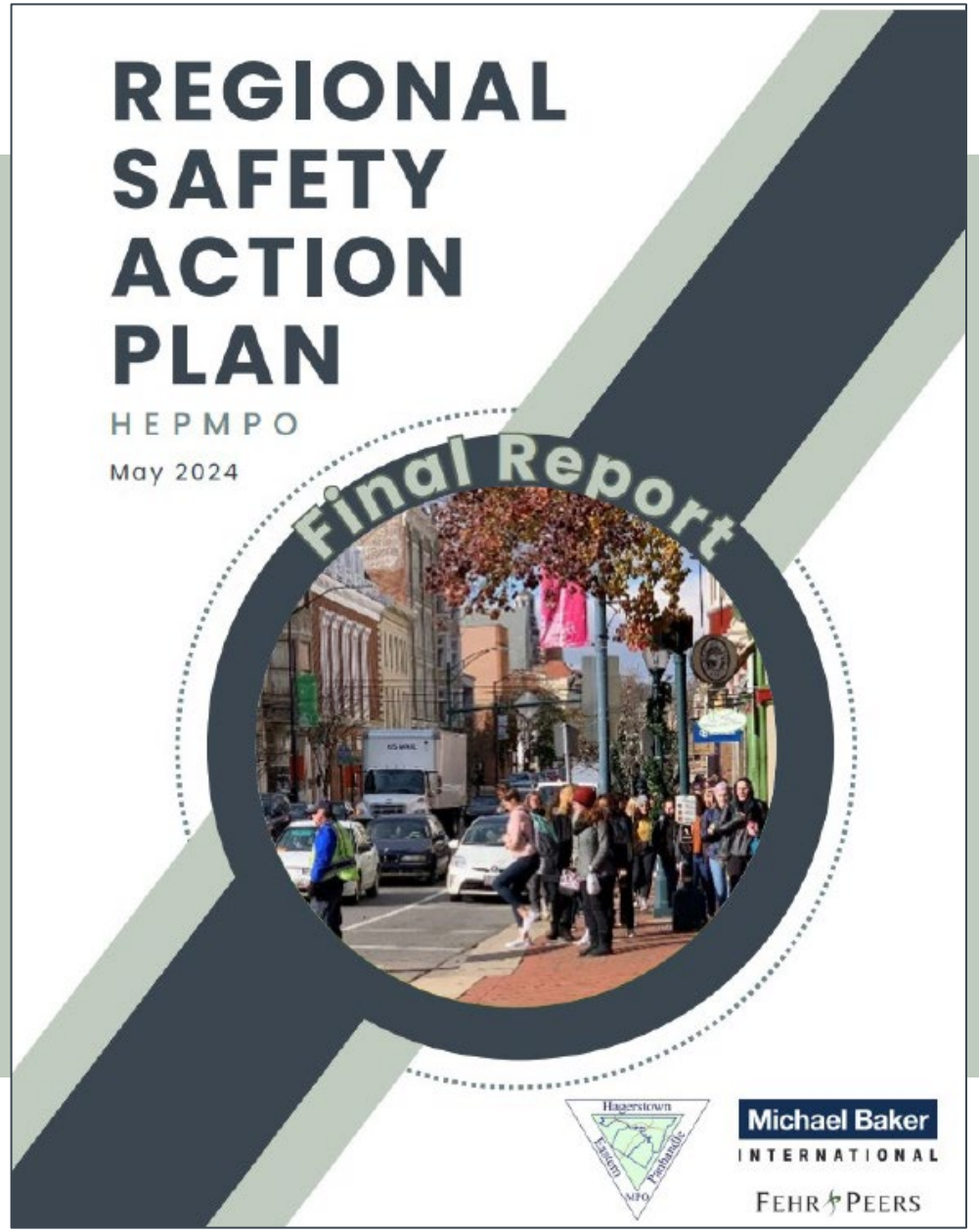
HEPMPO Regional SAP Final

Executive Summary

HEPMPO SAP Story Map

SAP Interactive Map Set

HEPMPO SAP Map Set



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PRESENTATION OUTLINE

1 Safety Action Plan Overview

2 Public Engagement

3 Safety Analysis

4 Results

5 Action Plan

6 Next Steps

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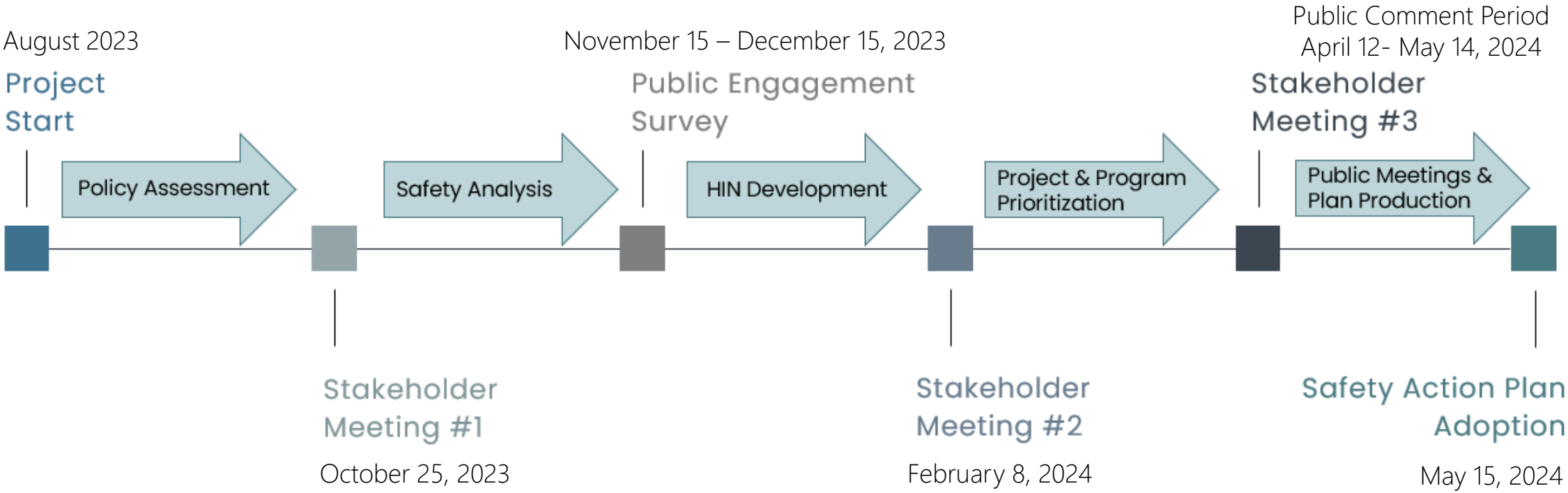
PLAN SCHEDULE



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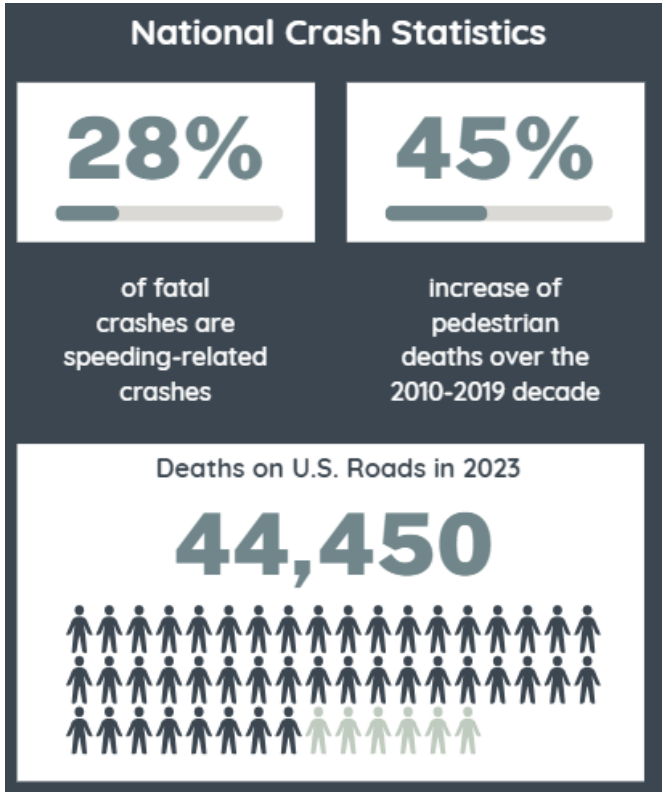
SAFE SYSTEM APPROACH

In 2022, the United States Department of Transportation introduced the National Roadway Safety Strategy (NRSS) to address the safety crisis on our Nation's roadways.



The NRSS declares a goal of zero deaths and adopts the Safe System Approach (SSA) as the guiding framework for addressing roadway safety and achieving this goal.

Source: FHWA

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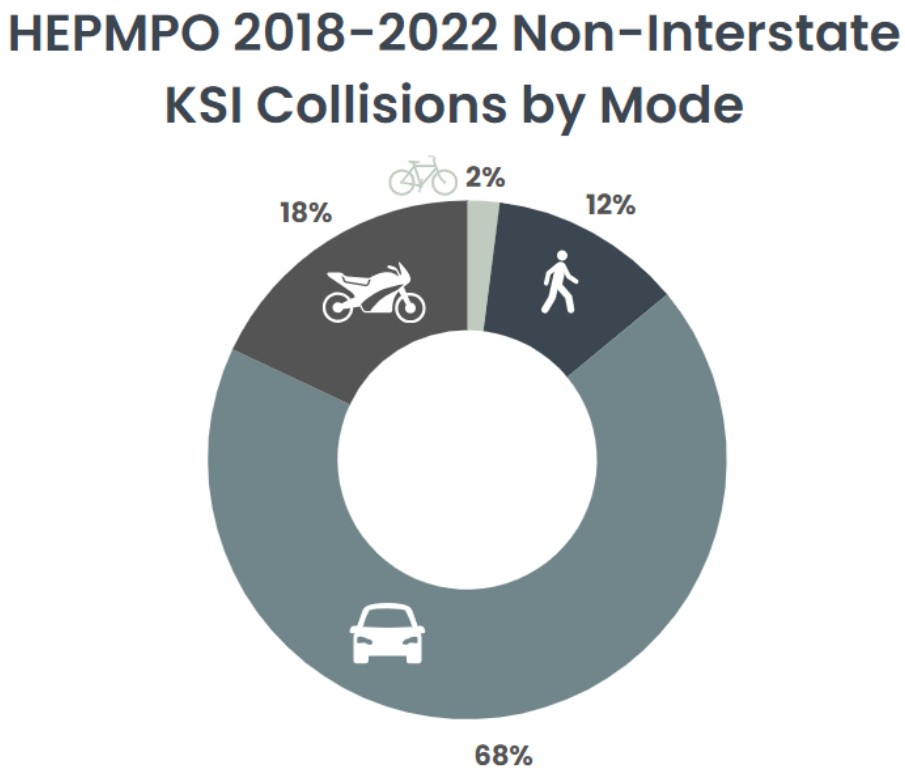
NEED FOR A SAFETY ACTION PLAN

In 2022 alone, the HEPMPO region had a total of 4,680 non-interstate crashes, **137 resulted in a person being killed or severely injured (KSI).**



SAFE STREETS FOR ALL (SS4A)

With the completion of the Action Plan, the MPO and local agencies in the region will be eligible to apply for projects (including on state-maintained facilities)*.

- ✓ **Action Plan** – Comprehensive set of actions (strategies, policies, programs, and projects) to reduce roadway fatalities.
- ✓ **Demonstration Projects** – Testing for proposed project and strategy approaches in Action Plan ($100K -$10M per award). USDOT expects to award hundreds of these grants. *Can apply with in-progress Action Plan*.
- ✓ **Implementation Projects** – Engineering and/or behavioral solutions (focus on systemic, equity, and vulnerable road users) from Action Plan ($2.5M - $25M per award). USDOT expects to award 50 of these grants. *Can apply with adopted Action Plan*.

Requirements

- 80% Federal | 20% local match
  - In-kind contributions can be used as match
- Set aside for planning and demonstration activities ($461 million this year).**
  - Developing new Action Plans, as well as supplemental planning and demonstration activities
  - Supplemental planning and demonstration activities included in an Implementation Grant count toward set aside
- No more than 15% of funds can be awarded to projects in a single State in a given fiscal year.
  - Tribal applications are not counted toward the State cap.

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*A local government can apply for a project or strategy along a State-maintained facility if the State agreed and signed support for the project.

SS4A GRANT CRITERIA

Planning Criteria		
	Comprehensive Safety Action Plan Element Criteria	**How HEPMPO Achieved It**
1	Governing body in the jurisdiction publicly committed to an eventual goal of zero roadway fatalities and serious injuries.	The HEPMPO ISC is the governing body that reviews and approves the plan.
	Set targets to achieve significant declines in roadway fatalities and serious injuries.	Outlined in **Chapter 1: Introduction**. The region's goal is to reach zero traffic fatalities and severe injuries by 2050.
2	To develop the Action Plan, a committee, task force, implementation group, or similar body established and charged with the plan's development, implementation, and monitoring.	A Stakeholder Advisory Committee was formed to help outline the plan and develop strategies. Outlined in **Chapter 2: Plan Development and Input.**
3	Analysis of existing conditions and historical trends to baseline the level of crashes involving fatalities and serious injuries across a jurisdiction, locality, Tribe, or region.	An online map was created to graphically show 2018 – 2022 MDOT and WVDOT Crashes in the Region. Outlined in **Chapter 3: Our Safety Story.**
	Analysis of systemic and specific safety needs is performed as needed (e.g., high risk)	Outlined in **Chapter 3: Our Safety Story.**
	Analysis of the location where there are crashes, the severity, as well as contributing factors and crash types.	Outlined in **Chapter 3: Our Safety Story.**
	A geospatial identification (geographic or locational data using maps) of higher risk locations.	A High Injury Network was created and shown in a map. Outlined in **Chapter 4: Focusing Efforts to Make a Change.**

This example does not show all elements. The complete table can be found in the plan.

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PUBLIC ENGAGEMENT

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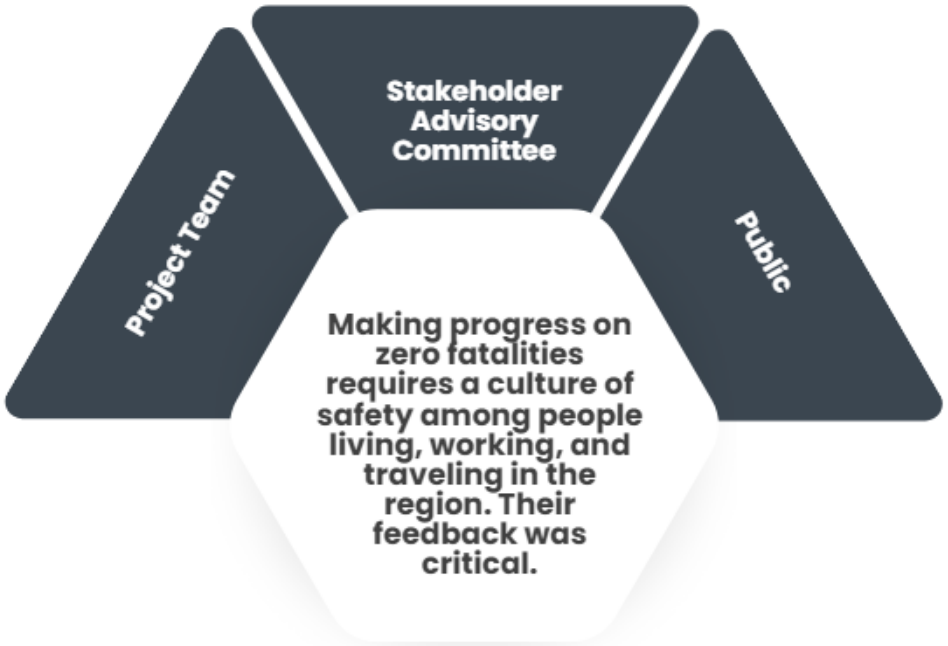
PLAN DEVELOPMENT

Plan Development Input Structure



STAKEHOLDER ADVISORY COMMITTEE

- HEPMPO
- EPTA
- Charles Town Police Department
- Washington County Transit
- City of Martinsburg
- City of Charles Town
- FHWA
- WVDOT
- Washington County
- City of Hagerstown
- MDOT
- Martinsburg Police Department
- Berkeley County
- Hagerstown Police Department
- Jefferson County Sheriff's Office

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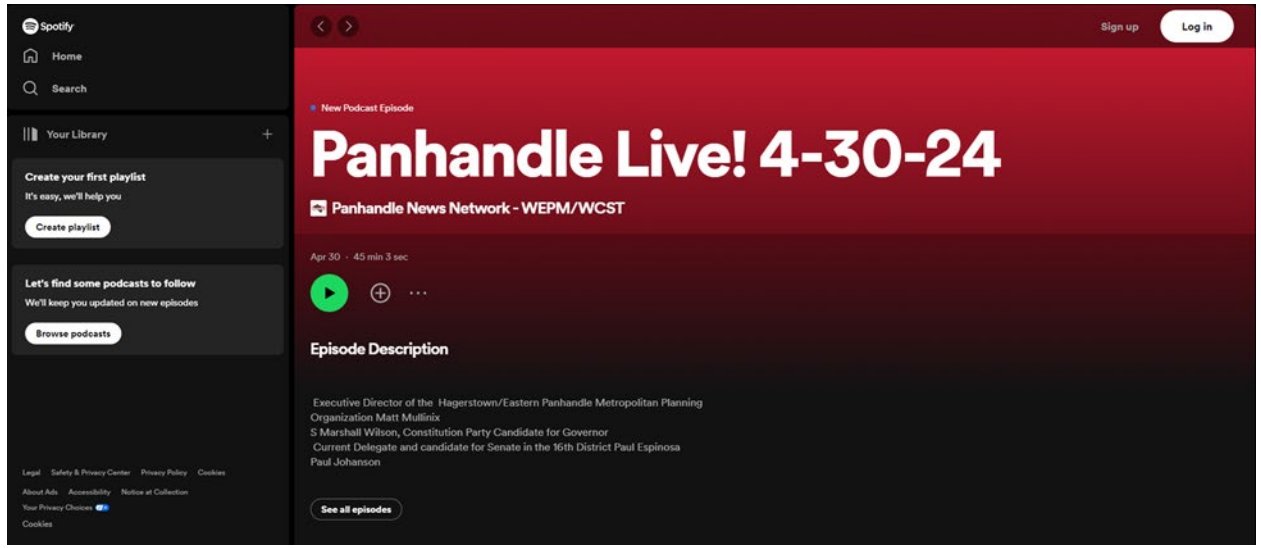
PUBLIC MEETINGS & OUTREACH

- 3-Public Meetings
- Social Media
- Newspaper Articles
- Interviews



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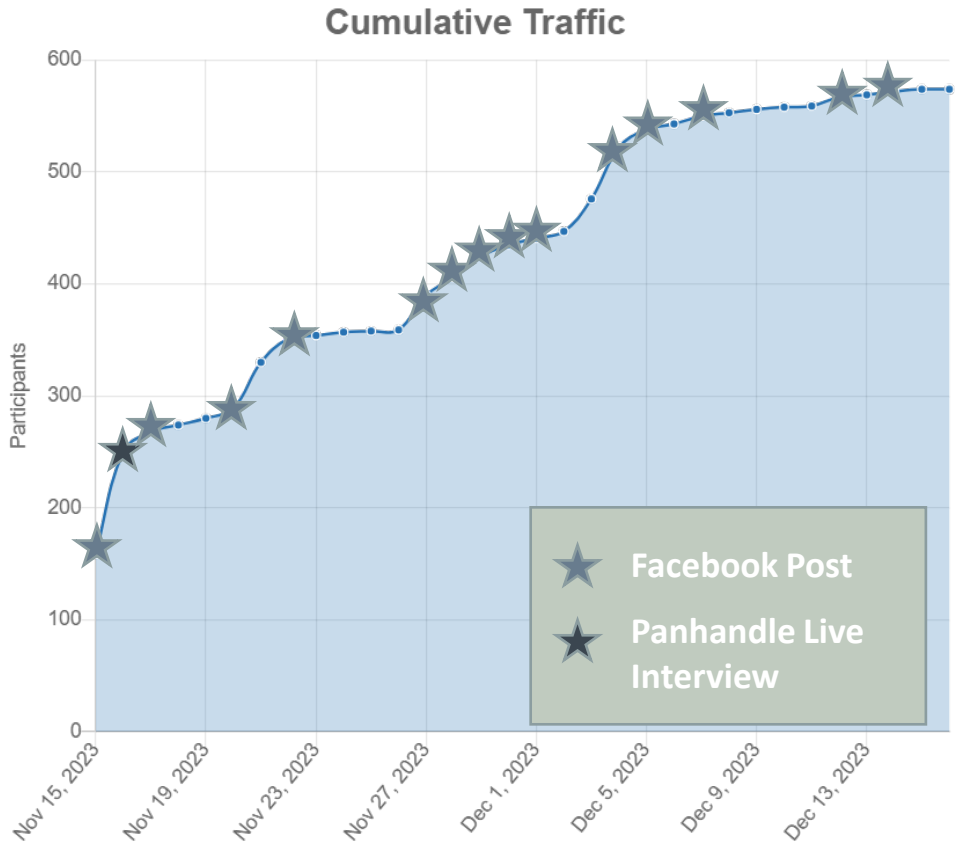
METROQUEST OVERALL RESULTS

APPLICANT INFORMATION

- 574 total participants!
- Around 50/50 female and male.
- Majority were 45 and older, the highest percentage of respondents were 65 and older.
- Most were white, only 7% were of another race/ethnicity.



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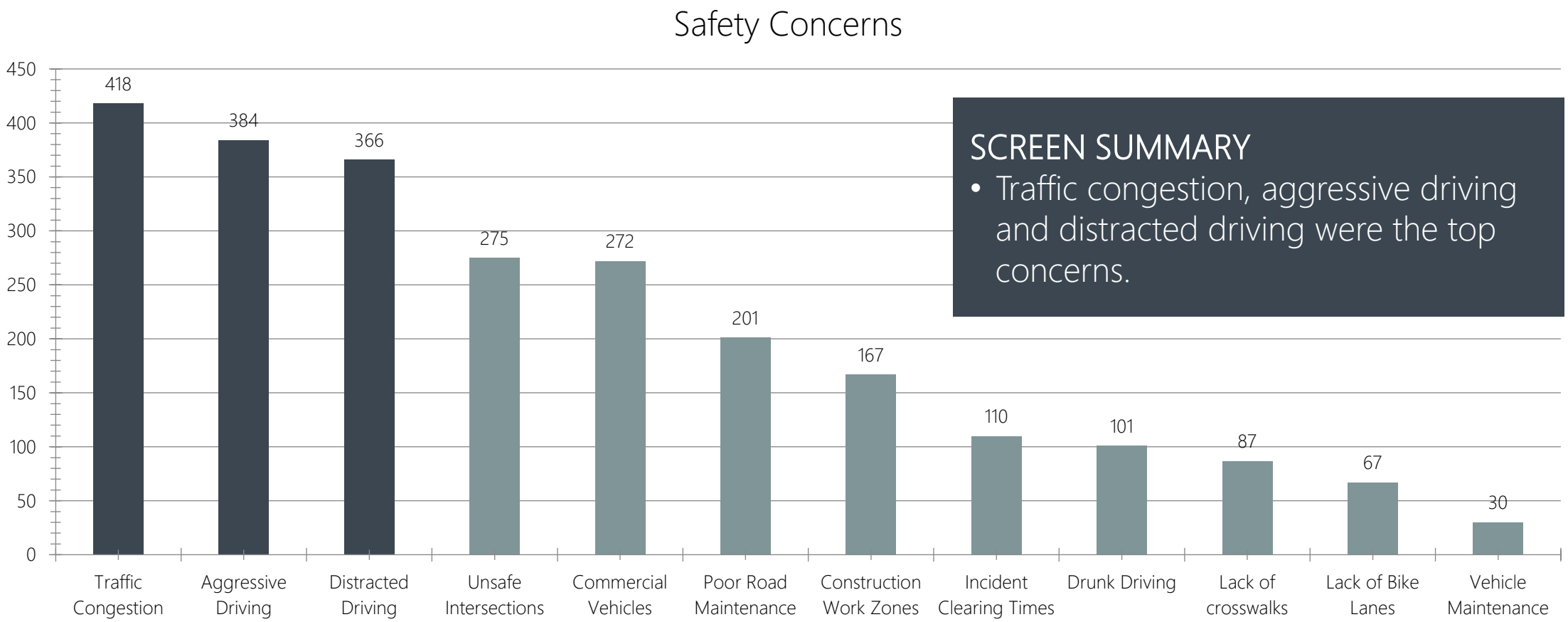
SAFETY CONCERN RANKING



SCREEN SUMMARY

- Traffic congestion, aggressive driving and distracted driving were the top concerns.

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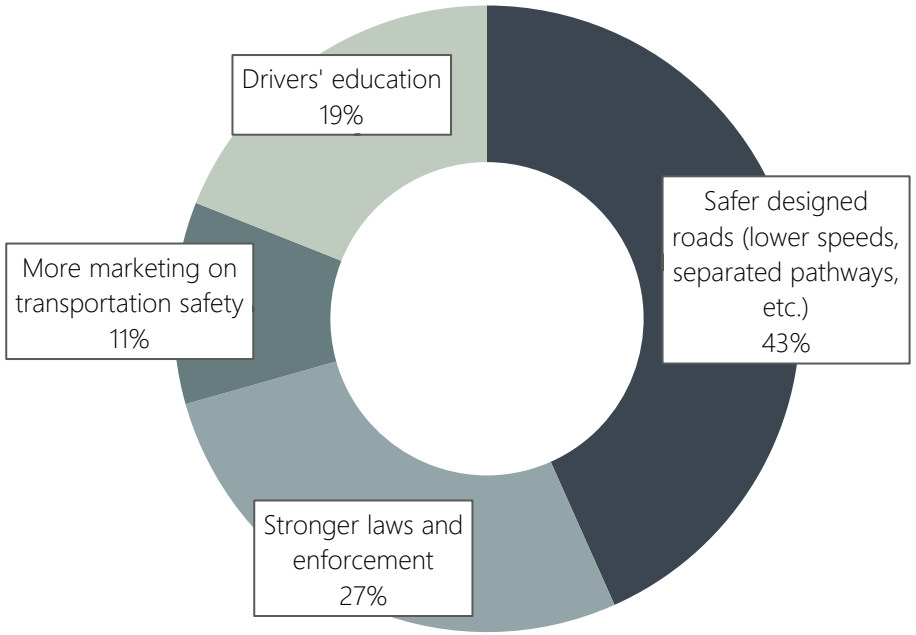
BIKE/PEDESTRIAN SAFETY

What would make you feel safer choosing to walk or bike? Select three.



SCREEN SUMMARY

- **More than half** of the participants walk or bike in the area.
- **Top five contributors of safety problems:**
  1. Distracted driving
  2. High speeds
  3. Lack of separation between vehicles and non-motorists
  4. Lack of bike lanes / crosswalks
  5. Road design / maintenance
- **Almost half** of the participants want to see safer designed roads including lower speeds, separated pathways, and other safety designs.

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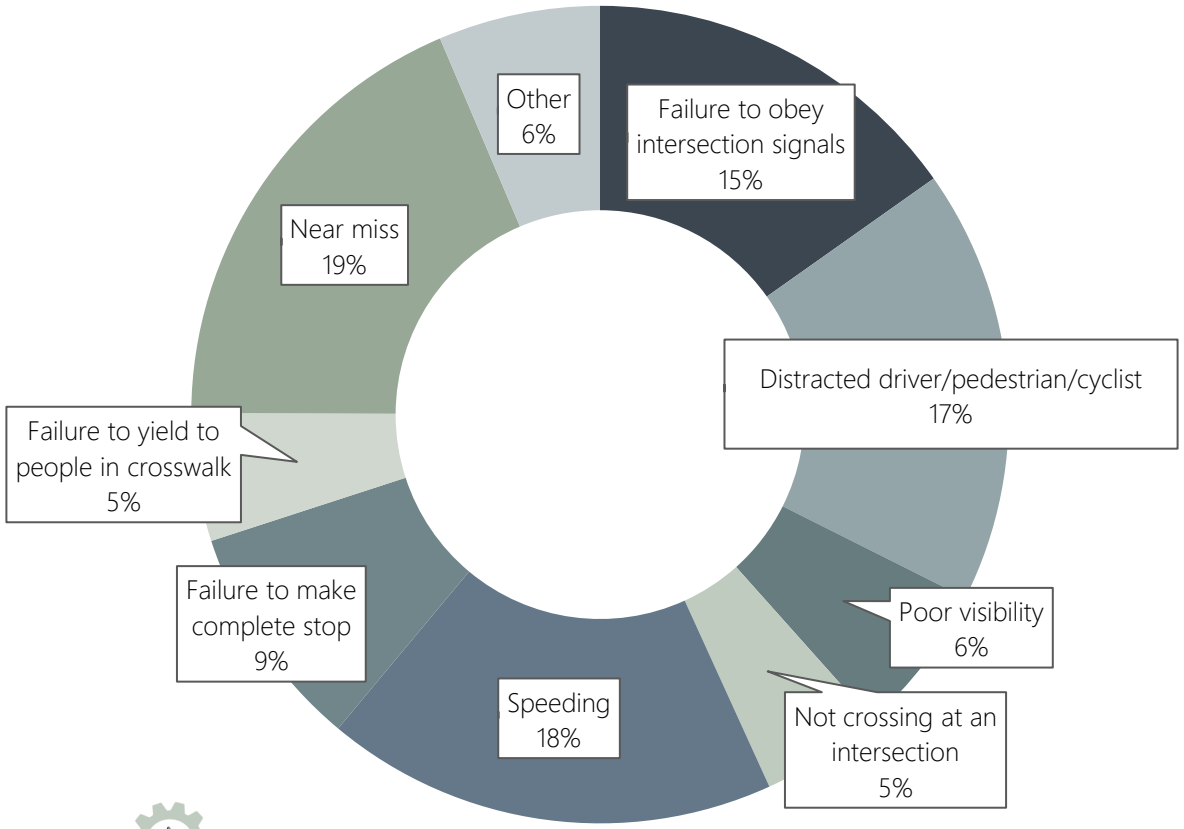
DRIVER SAFETY

What was the nature of the incident? Check all that apply.



SCREEN SUMMARY

- **66% of participants** have experienced a driving safety incident within the last year.
- Majority of the participants were driving when the incident occurred and only twelve percent of participants experienced the incident while walking.
- Half of the incidents were near miss, speeding, or distracted driving/pedestrian.

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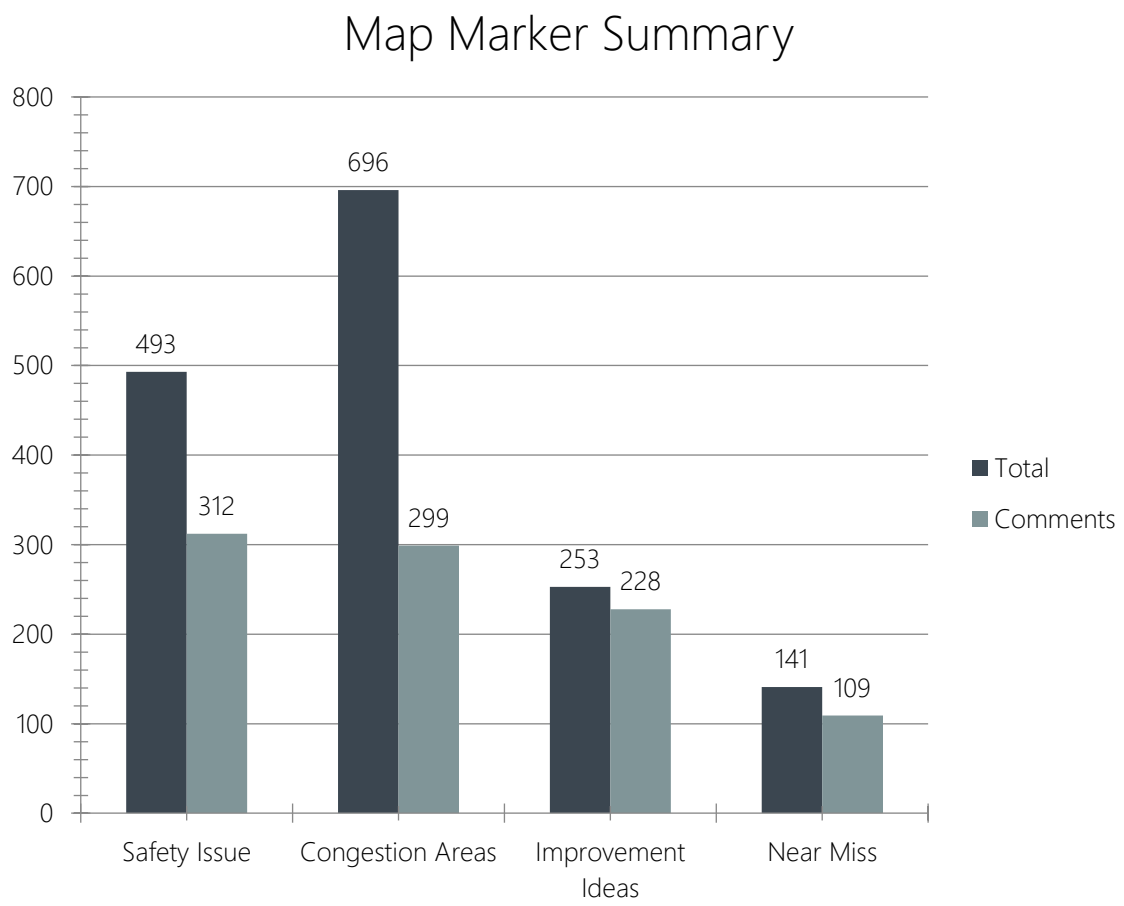
MAPPING



SCREEN SUMMARY

Safety
- The top issues were unsafe intersections and speed.

Congestion
- 60% experience congestion between 4PM and 7PM
- 27% experience congestion between 6AM and 11AM.

Improvement Ideas
- Most suggestions were related to additional lanes, sidewalks and connectivity, incorporating lights, and enforcing laws.

Near Miss
- 85% of participants experienced a near miss within the past six months.
- 89% percent of people said they have experienced multiple near misses at a specific location.

1,583 TOTAL PIN DROPS & 948 COMMENTS

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SAFETY ANALYSIS

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POLICY AND BENCHMARKING ASSESSMENT

Step 1
- Identify and review relevant documents and plans.

Step 2
- Populate benchmarking tool with findings from the document and plan review.

Step 3
- Stakeholders select top five benchmarking opportunities.

Step 4
- Develop action plan.

Source: FHWA

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POLICY AND BENCHMARKING ASSESSMENT

Benchmarking Strengths

Core Element	Category	HEPMPO Safety Strength
Safety Planning and Culture	Identifying corridors of concern	• Dual Highway (US 40) in Hagerstown • Washington St (between Burhans Blvd & Cannon Ave) in Washington County • WV 9 (Traver's Country Store to Dollar General) in Berkeley County • Summit Point Rd (Shirley Rd to Lloyd Rd) in Jefferson County • Foxcroft Avenue Pedestrian Road Safety Audit in Berkeley County
	Funding	TIP funds programmed HSIP for Roadway Departures • Daniel Road • Flowing Springs Exit • Districtwide Roadway Departures • Walnut Street and Virginia Avenue railroad crossings
	Previous planning efforts	The 2019 Regional Traffic Safety Study was the region's first effort to identify areas of safety concern and recommend safety improvement strategies.
Safe Users	Transit safety	No major transit safety concerns within the region.
Safe Roadways	Collision avoidance	Installing proven countermeasures to separate users in space and time, such as infilling sidewalks along segments of Dual Highway.
Safe Speeds	Enforcement	Speed cameras authorized in Washington County (school zones and work zones) and Hagerstown has a handful of red light cameras to reduce red light running. Berkeley County has radar speeds signs on I-81 and school zones, and has conducted previous safety campaigns.
Post Crash Care	Crash review	Beyond collecting crash data from both state DOTs, HEPMPO conducts additional outreach with local police to capture any missing crashes or obtain further crash details.

POLICY AND BENCHMARKING ASSESSMENT

Benchmarking Opportunities

Core Element	Category	HEPMPO Safety Opportunity
Safety Planning and Culture	Leadership and commitment	**No regionwide resolution currently supporting safety program nor committing to specific safety goal.**
	Meaningful engagement and equity	**Limited meaningful engagement with populations that are traditionally underserved.**
	Funding	**Staff time, limited resources, and support to apply for safety funding.**
	Development review	**No formal process to ensure new developments assess safety impacts.**
Safe Users	Education	**Limited opportunities to raise awareness with the public and stakeholders to create buy-in for safety improvements (i.e., demonstration projects, education programs, tactical urbanism).**
Safe Roadways	Policies and tradeoffs	Lack of regionwide safety related policies to supplement the AASHTO Greenbook, MUTCD, and/or implementation of existing policies (e.g., Complete Streets, modal prioritization).
Safe Vehicles	Best practices guidance	Little knowledge sharing or available resources within the region regarding safe vehicle best practices.
Safe Speeds	Policy and training	Limited awareness of speed management methodologies and strategies in the region.
Post Crash Care	Crash review	Independent crash review of fatal and severe injury crashes involving pedestrians and bicyclists.
	Data sharing	Engagement with emergency responders and hospitals to more effectively share data across agencies.

Note: Bold text indicates an opportunity that was addressed through the development of the safety action plan or was included as an action item in the plan.

SAFETY ANALYSIS

Data Inputs

- Crash data (2018 – 2022)
- Roadway network and attributes
- Municipal boundaries
- Equity areas
- Population data

Crash Trends Analysis

- Fatality rate
- Crashes by injury severity and mode
  - Year
  - County
  - Collision type
  - Location
  - Posted speed limit
  - Equity area
  - Urban vs Rural[1]

Crash Location Analysis

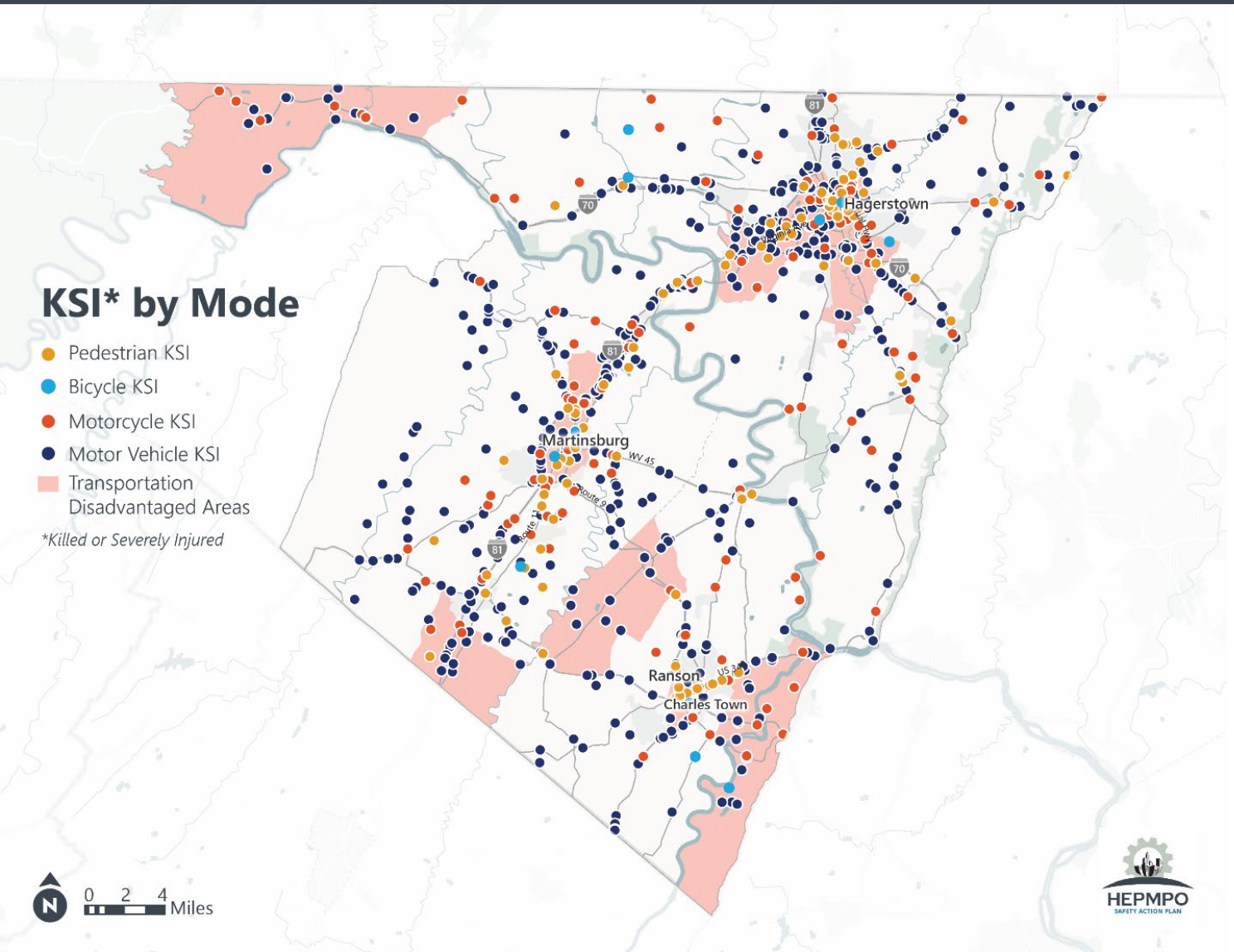
- Developed high-injury network
- Higher weight given to KSI[2] & VRU[3] crashes

Priority Corridors

- State VRU Corridors
- Equity areas
- Public input
- Stakeholder committee input

1: Within a municipal boundary or outside a municipal boundary
2: Killed or severely injured
3. Vulnerable road user (e.g., pedestrian, bicycle, motorcycle)

SAFETY ANALYSIS



- WV Crash Data – Improvement of Lat/Long Coordinates
  - 23,270 Total Crashes
  - 561 KSI Crashes
- Publicly Available – Significant accuracy improvements, previous data sets required analysts to recreate LRS to get crash coordinates
- More accurate spatial intersections to use with other data needed to develop the high-injury network
  - Demographic Analysis
  - Equity Areas
  - Commercial Vehicle Probe Data
  - O/D data
  - Strava Bike/Ped Analysis
  - Employment Locations

SAFETY ANALYSIS

Key Findings

- Between 2018 and 2022, **nearly 3 crashes per week resulted in a fatality or severe injury** on non-interstate roadways within the region.
- Motor vehicle collisions are the most common in the region, **but VRU[1] collisions have a higher rate of KSI**.[2]
- Single vehicle and rear end collisions are the most common, but **single vehicle and head-on collisions are the most common when the collision resulted in a KSI**.

- Roadways **with 50-55 MPH** posted speed limits account for only **3% of non-interstate** roadways in the region, but **account for 10% of KSI non-interstate crashes.**
- **Bicycle and pedestrian KSI crashes** occur at a higher rate compared to other modes **within Transportation Disadvantaged areas.**
- Most crashes, except for motorcycles, primarily occurred within an urban area (municipal boundary).

- KSI crashes are relatively split between urban and rural areas, except **pedestrian KSI crashes primarily occur within urban areas**.
- The **fatal crash rate**, including interstate crashes, per 100,000 people for the region **is 11.5**, but Berkley County has a higher fatal crash rate of 12.5.
- **Safety fact sheets were developed** to address single vehicle crashes, head-on crashes, angle crashes, and bicycle and pedestrian crashes.

1. Vulnerable road user (e.g., pedestrian, bicycle, motorcycle)
2. Killed or severely injured

SAFETY FACT SHEET

PROFILE 1:

Single Vehicles Crashes*

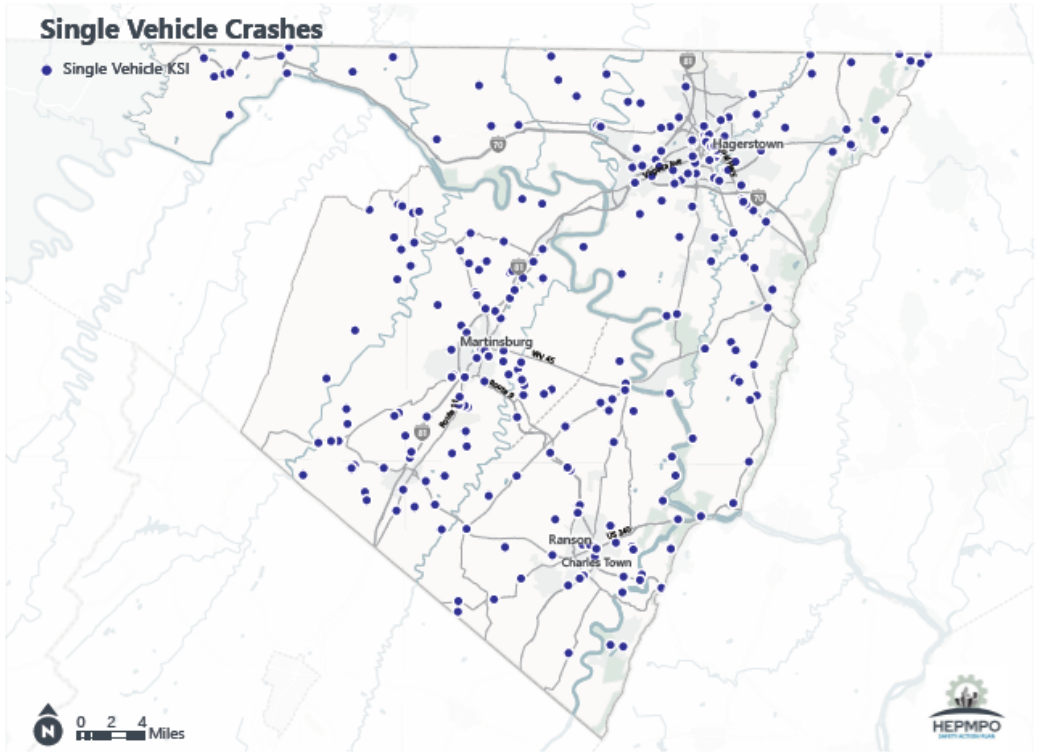
The single vehicle crash profile involves incidents where one vehicle loses control and collides with stationary objects like trees, poles, guardrails, or veers off the road. Contributing factors include driver distraction, impairment, excessive speed, adverse weather, or avoiding obstacles. Despite no other vehicle involvement, the consequences can be severe, including rollovers, ejections, and significant injuries or fatalities. This profile underscores the importance of driver awareness, adherence to speed limits, and roadway designs that minimize off-road hazards for improved safety.

* Excluding bicyclists and pedestrians.

30%
of all crashes

267
killed or seriously injured (KSI) crashes

37%
of all KSI crashes were within this category



Most commonly seen along:

Along High-Injury Network:

- Apple Harvest Dr
- Hedgesville Rd
- Dual Highway
- Winchester Ave
- Williamsport Pike
- Route 9
- Back Creek Valley Rd

Along Non-High-Injury Network:

- Bloomery Rd
- Interstate 68
- Needy Rd
- Rohrersville Rd

Countermeasures

Fixed Objects

- Advanced Warning Sign
- Barrier
- Improve Sight Distance
- Pavement Markings
- Rumble Strips

At Night

- Advanced Warning Sign
- Lighting
- Pavement Markings

Speed

- Traffic Calming
- Speed Strategies
- Variable Speed Limit

RESULTS

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RESULTS

HIGH INJURY NETWORK

A High Injury Network (HIN) is a collection of segments and corridors within the region that carry a disproportionate number of fatal and severe crashes and crashes involving people walking, biking, or riding a motorcycle, also known as vulnerable road users.

PRIORITY CORRIDOR PROFILES

Priority corridor profiles were developed to generate project ideas and countermeasures to address safety issues along the top identified corridors in the region.

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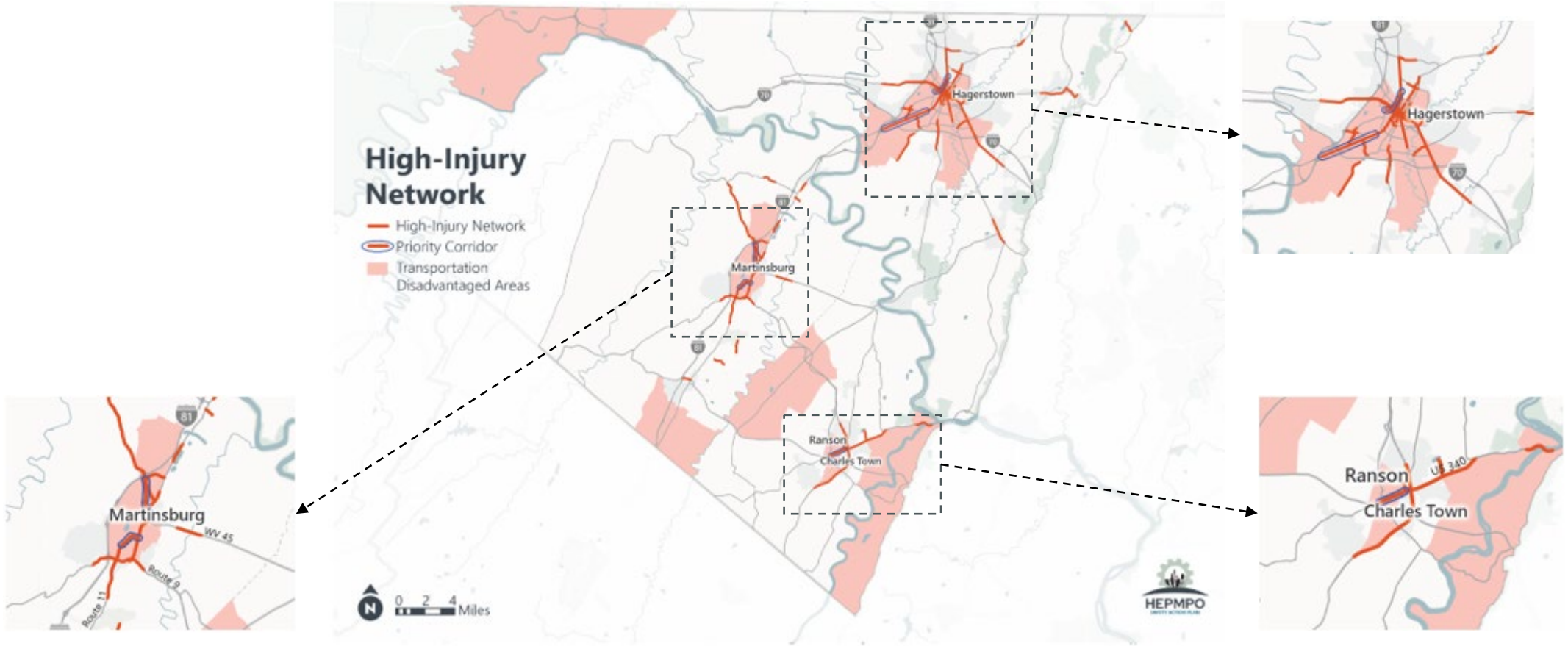
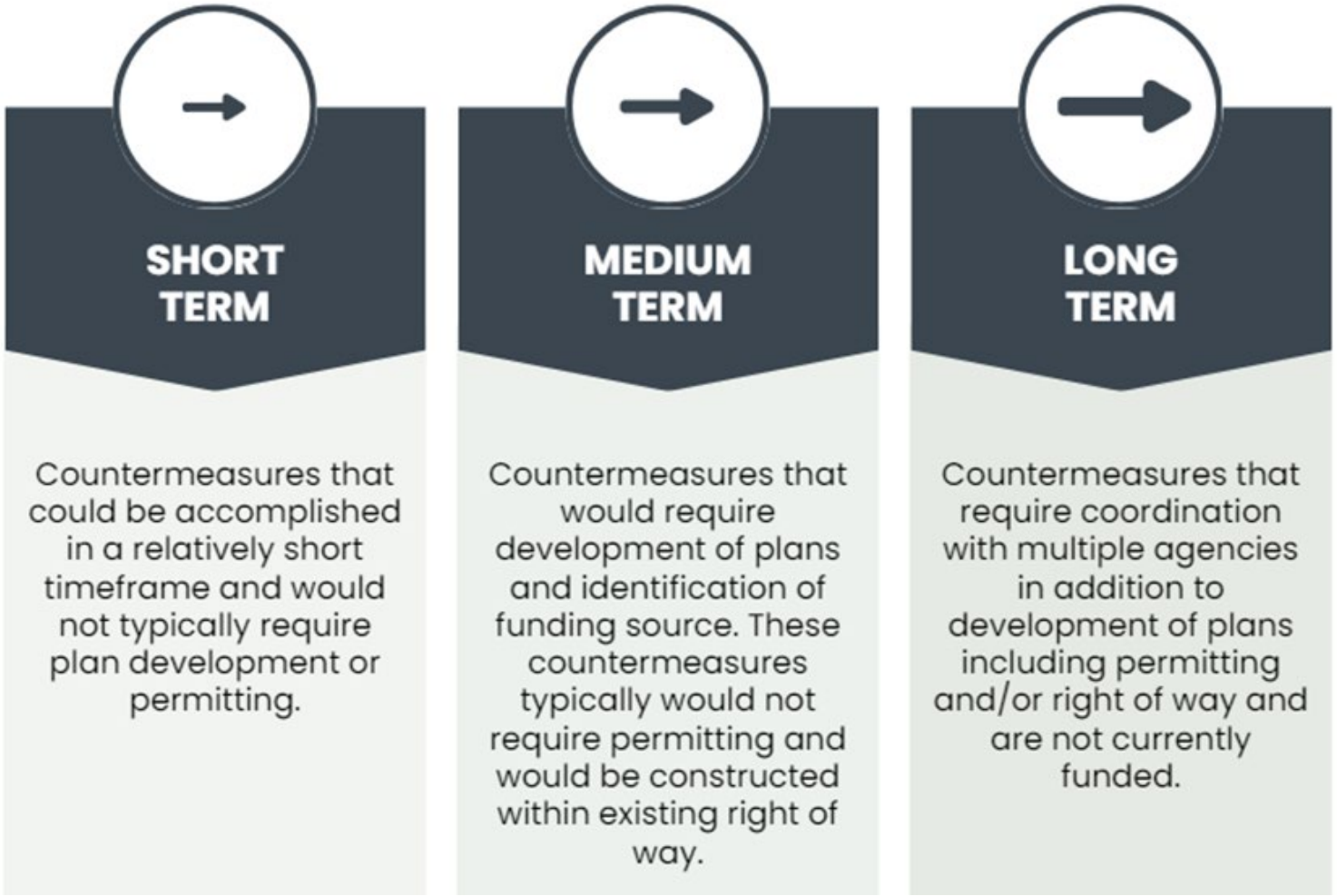
HIGH INJURY NETWORK



HIN expanded with Stakeholder and Public Outreach input

RECOMMENDED COUNTERMEASURES – SITE SPECIFIC AND TIME RANGES



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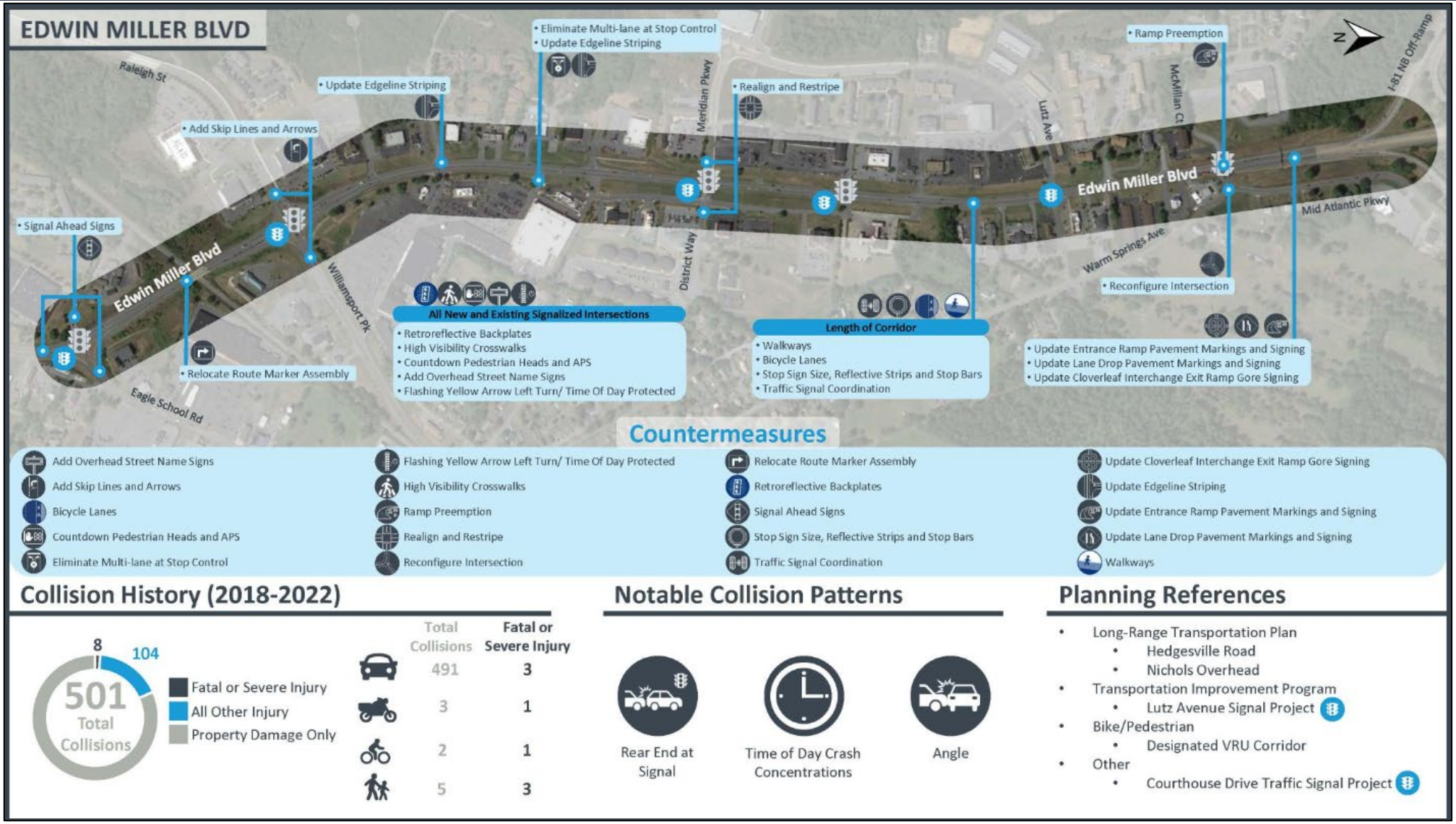
PRIORITY CORRIDOR PROFILE – EDWIN MILLER BLVD. MARTINSBURG



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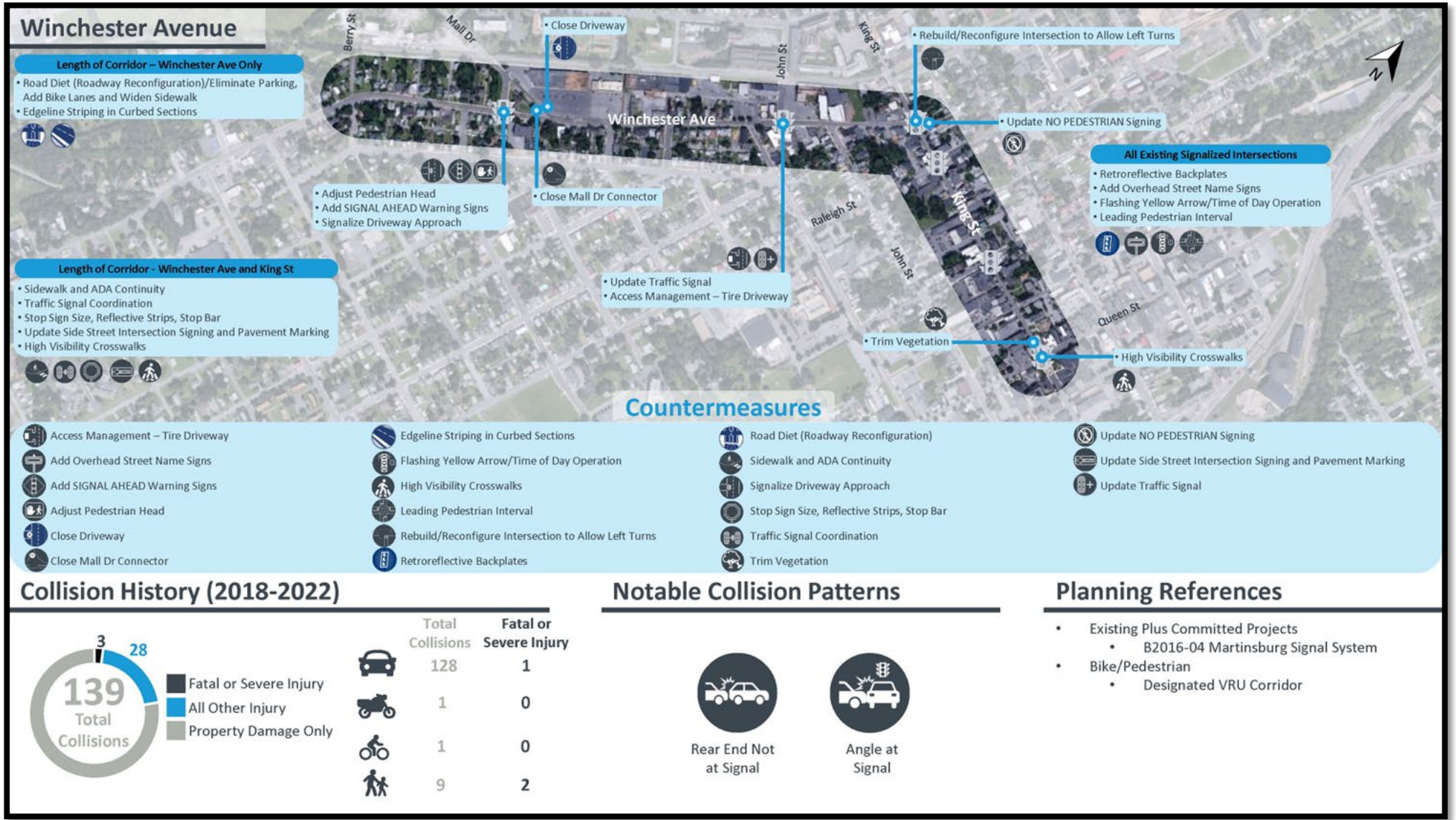
PRIORITY CORRIDOR PROFILE – WINCHESTER AVE. MARTINSBURG



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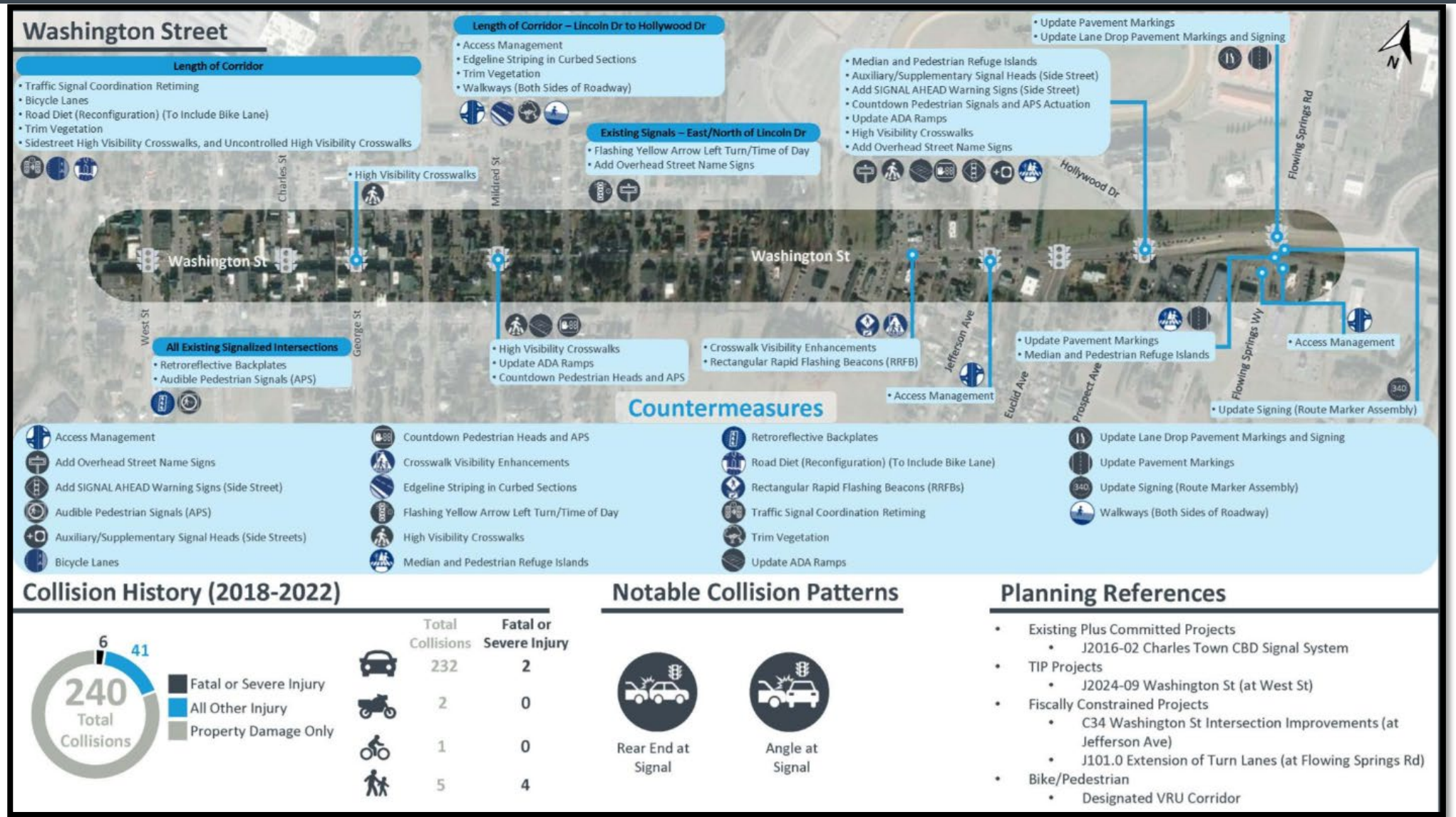
PRIORITY CORRIDOR PROFILE – WASHINGTON STREET CHARLES TOWN



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ACTION PLAN

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IMPLEMENTATION PRIORITIES

- Support local jurisdictions
- Collaborate with State Agencies
- Incorporate HIN as prioritization criteria
- Establish SAP Committee

- Evaluate meaningful engagement strategies to enhance outreach
- Raise awareness of Safety Countermeasures
- Promote the release of the Action Plan

- Implement safety improvements and countermeasures
- Systemically install safety countermeasures at locations matching fact sheets
- Share priority profiles and fact sheets with jurisdictions

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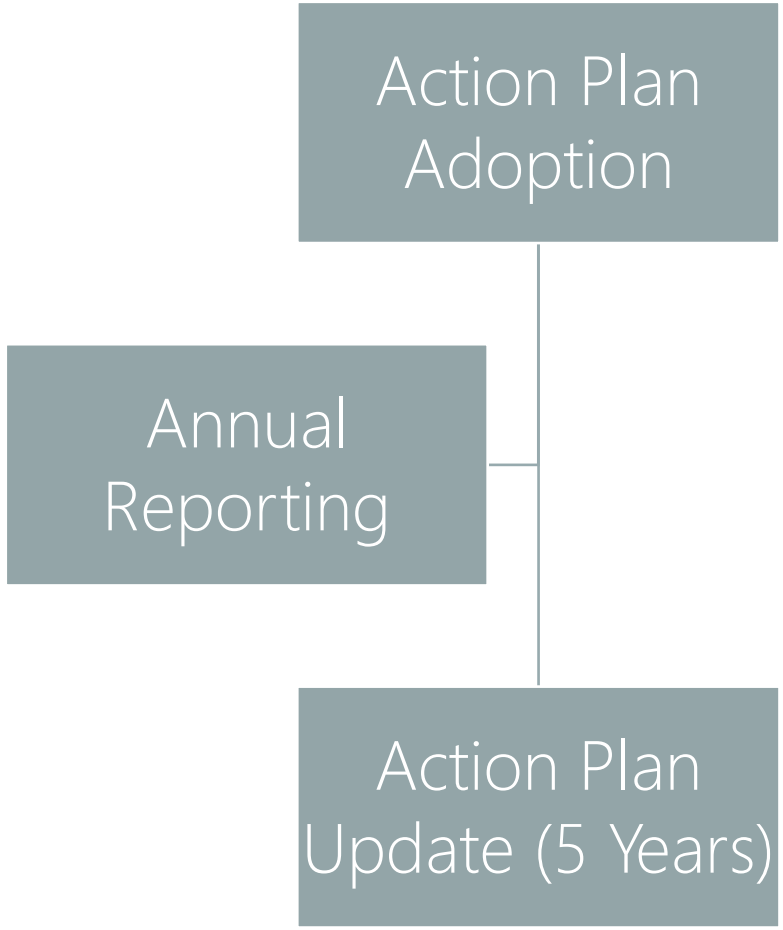
EVALUATION AND MONITORING

Monitoring Committee

- Establish a Safety Action Committee
- Interstate Council voted to form the Safety Action Committee on May 15th
- Performance metrics:
    - Total fatalities
    - Fatality rate
    - Total serious injury
    - Serious injury rate
    - Non-motorized fatalities and serious injuries
    - Number of KSI crashes within transportation disadvantaged areas
    - Percentage change in KSI single vehicle crashes and KSI angled crashes



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NEXT STEPS

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NEXT STEPS

- ISC Formal Adoption of the SAP – May 15, 2024
- Monitor NOFOs and SS4A Applications / Due Dates (August 29th)
- Funding Match Challenges (80/20%)
- Coordination between WVDOH and Local Jurisdictions (agreements, grant administration, concurrence of improvements, etc.)
- Support Letters for State-Owned Facilities, Utilization of WV Hub

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