

# **KENT COUNTY SS4A (SAFE STREETS AND ROADS FOR ALL) COMPREHENSIVE SAFETY ACTION PLAN**



# Agenda

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- Plan Overview & Goal
- Engagement
- Crash Analysis
- Recommendations
- Implementation

# Plan Overview & Goal



# Why a comprehensive safety action plan?

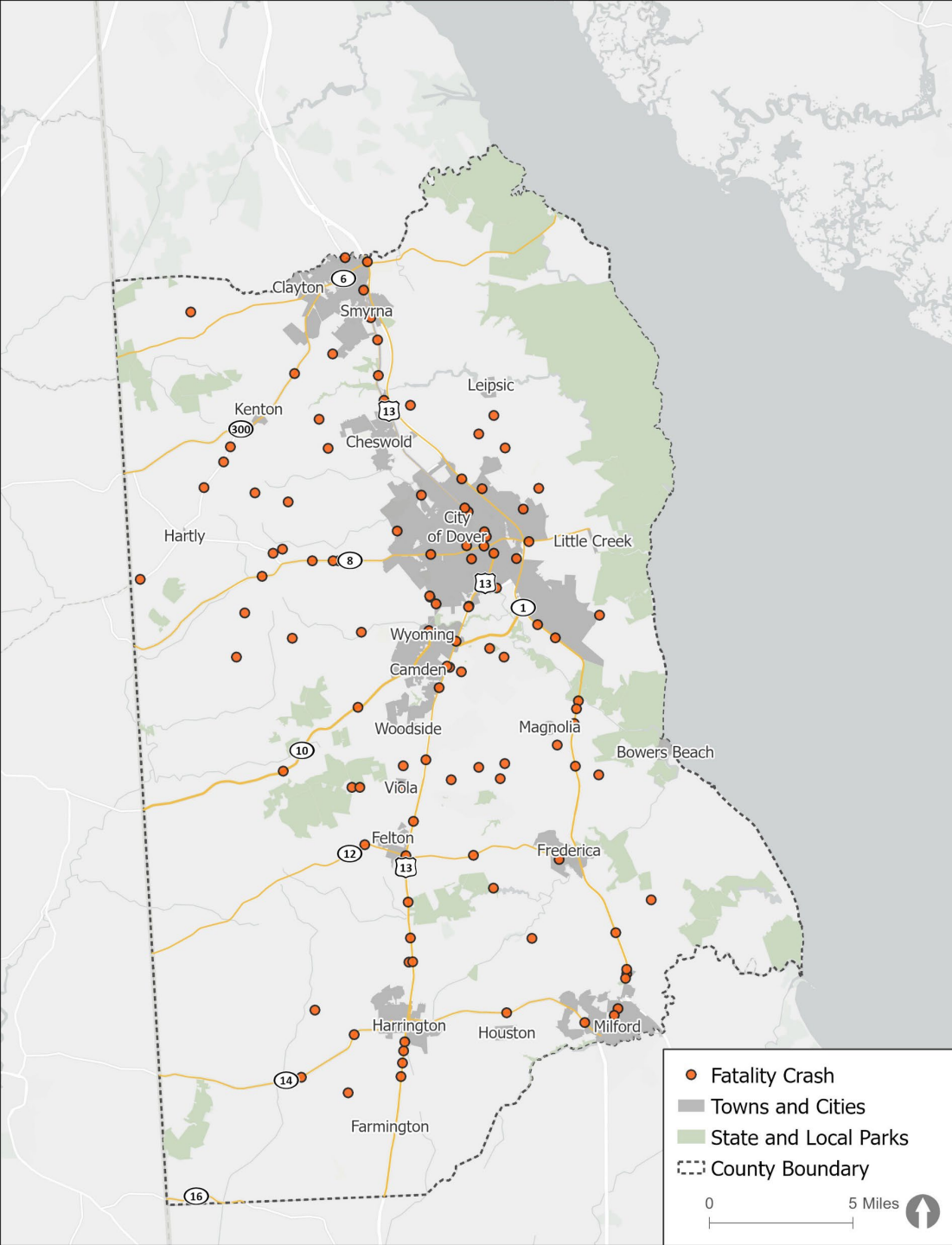
From 2019-2023, Kent County experienced:

**115 fatal crashes**

**4,846 personal injury crashes**

**21,804 total reportable crashes (not shown on the map)**

Despite a slight drop in 2023, fatalities on Delaware's roadways, including Kent County, continue to show an upward trend over the past five years.



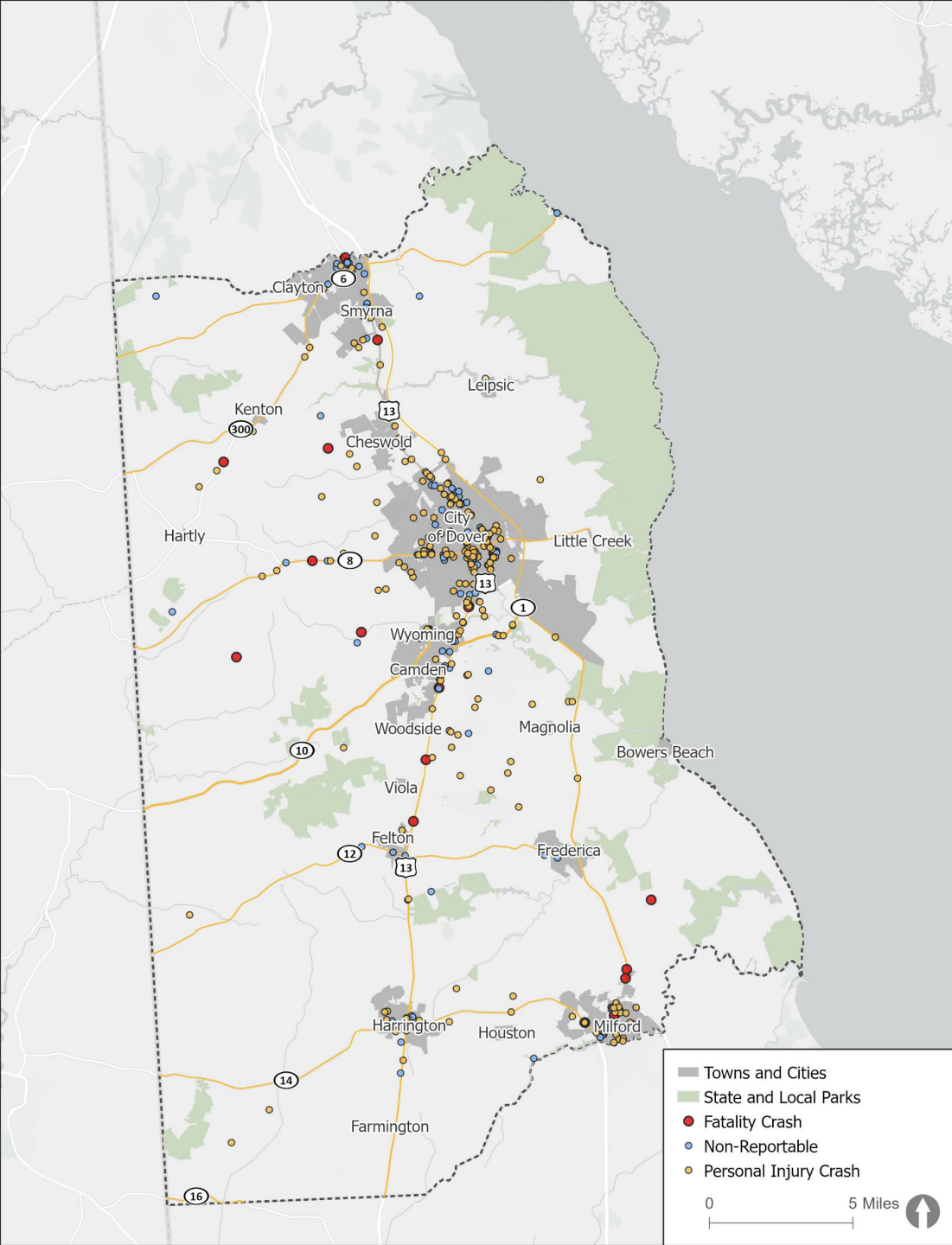
# Why a comprehensive safety action plan?

**From 2019-2023, Kent County experienced:**

**21 fatal pedestrian & bicyclist crashes**

**243 personal injury pedestrian & bicyclist crashes**

**409 total pedestrian & bicyclist crashes**



# Why a comprehensive safety action plan?

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- The Safe Streets and Roads for All (SS4A) grant program was created by the Infrastructure Investment and Jobs Act/Bipartisan Infrastructure Law (IIJA/BIL).
- This program is one of the first to make Federal transportation funds available directly to local governments.
- \$5 billion is available over five years.
- The Dover/Kent County MPO was awarded a \$160,000 SS4A grant from the U.S. Department of Transportation to develop a safety action plan.
- DelDOT provided a \$40,000 match.

# Safety action planning process



Establish a **vision** for transportation safety



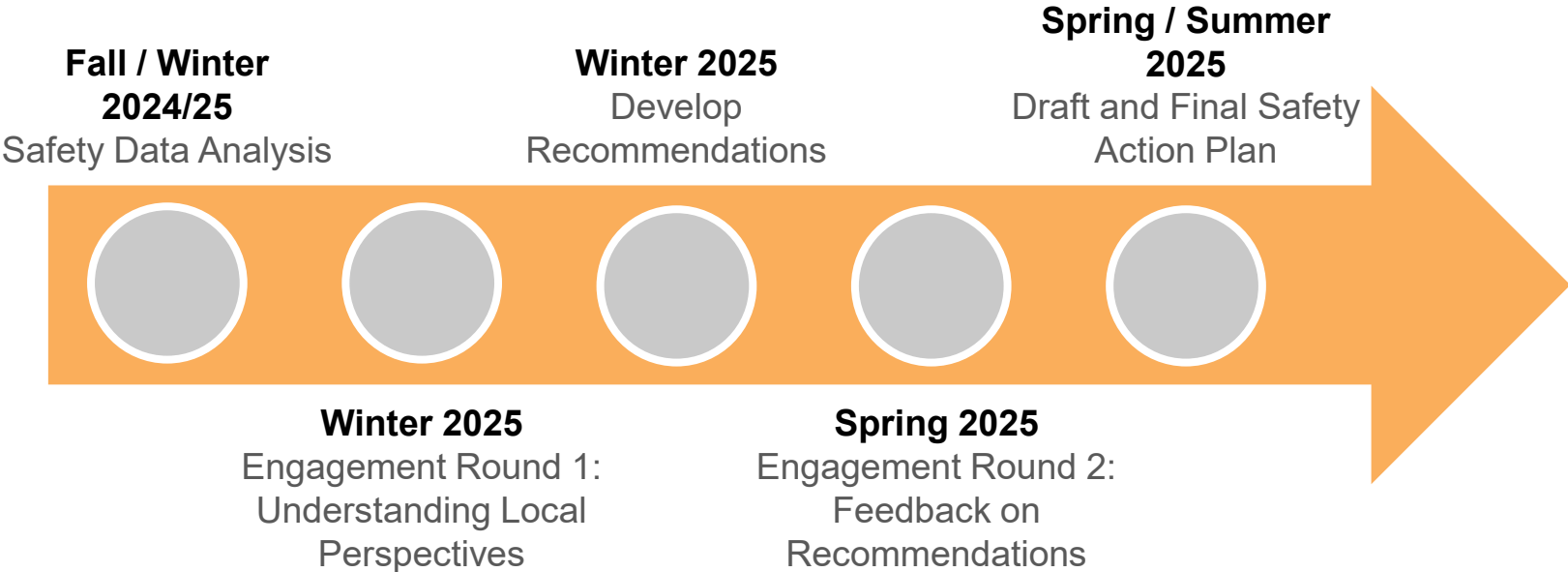
Analyze **safety, mobility, and equity** data



Incorporate **community feedback**



Develop **projects and strategies** to address roadway safety issues



**Plan Goal:**  
Reduce fatal and serious injury crashes by 50% by 2040 and eliminate fatal and serious injury crashes by 2050.

# Engagement



# Safety Working Group

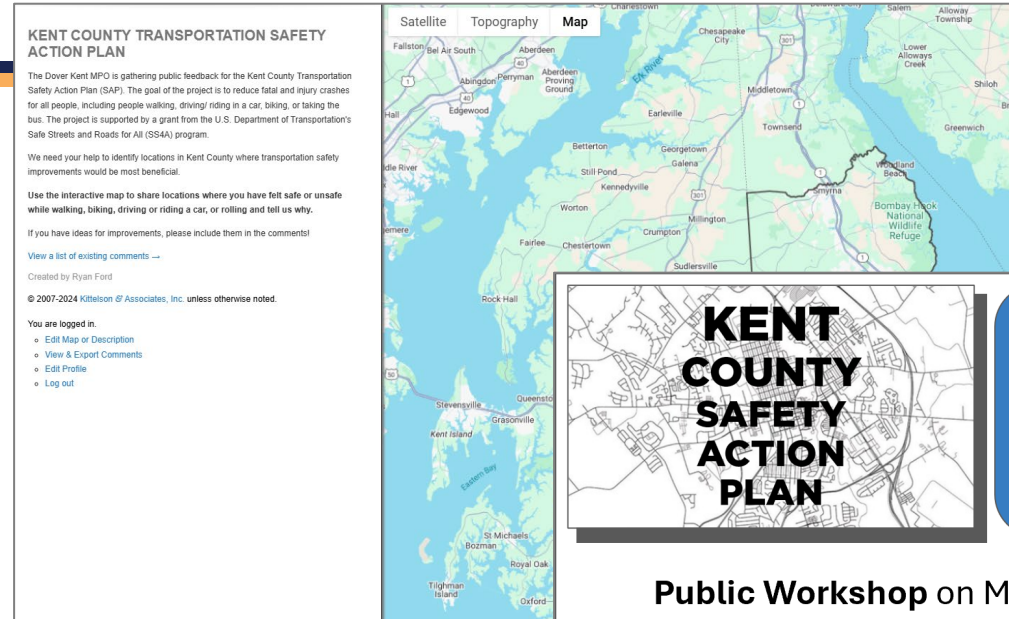
- Interdisciplinary team of agency staff and community leaders in the region
- Met four times during Plan development
- Established collaboration and accountability
- Leverage during future implementation of the Plan

Organization	Representative
City of Harrington	Norman Barlow
Delaware Department of Education, School Transportation	Tyler Bryan
Delaware Office of Highway Safety	Sharon Bryson
Kent County Fire Chiefs Association	Scott Bundek
Delaware Transit Corporation	Tremica Cherry-Wall
DelDOT Traffic Safety	Emily Hufnal
City of Dover	Dave Hugg
Delaware State University	Quiana Hutchins
Town of Smyrna	Torrie James
Town of Clayton	Paul Johnson
Kent County Planning Services	Sarah Keifer
DelDOT Planning	Chip Kneavel
AAA Mid-Atlantic Public Affairs	Jim Lardear
Delaware Association of Chiefs of Police	Chief Marvin Mailey Jr., Ret.
City of Harrington	Amanda Marlow
Kent County Farm Bureau	Jim Minner
DelDOT Traffic Safety	Scott Neidert
Kent Economic Partnership	Linda Parkowski
Delaware State Police	Heather Pepper
City of Milford	Rob Pierce
Delaware Greenways	Mary Roth
Town of Smyrna	Jeremy Rothwell
Bayhealth Hospital	Heather Saint
Delaware League of Local Governments	Kevin Spence
Town of Camden	Harold Scott
AAA Mid-Atlantic Public Affairs	Jana Tidwell
Kent County Department of Public Safety	John Tinger
City of Milford	Mark Whitfield
Bike Delaware	James Wilson

# Public engagement approach

## Phase 1

- Purpose
  - Introduce the plan
  - Share safety analysis
  - Learn about traffic safety experiences
- Techniques
  - Online storymap
  - Online survey
  - Interactive comment map
  - Public workshop on January 13



We are working to make transportation safer in Kent County and are **looking for your input!**

**Public Workshop** on Monday, January 13<sup>th</sup>!

4:00 pm to 7:00 pm

Modern Maturity Center (1121 Forrest Ave in Dover)

Stop by the open house anytime! A brief presentation will be offered shortly after 4 pm and again at 5:30 pm.

Snacks and refreshments will be available!

**Plus!** Take the survey to tell us about where you do not feel safe travelling in Kent County.



Learn more about the project here!: <https://arcg.is/0nau800>

# Public engagement approach

## Phase 2

- Purpose and goals:
  - Seek input on recommendations
  - Reach more people
- Techniques
  - Updates to online StoryMap
  - Pop-up events in April and May
    - Boards, activities, survey link
    - 256 survey responses!



# Crash Analysis



# Crash Analysis Takeaways

2019 – 2023 crash data

- Fatal crashes are especially concentrated along US 13 and Route 1
- Most common crash types are angle, rear-end, and hit-fixed-object crashes
- Failing to yield, following too close, and colliding with an animal are key contributing factors

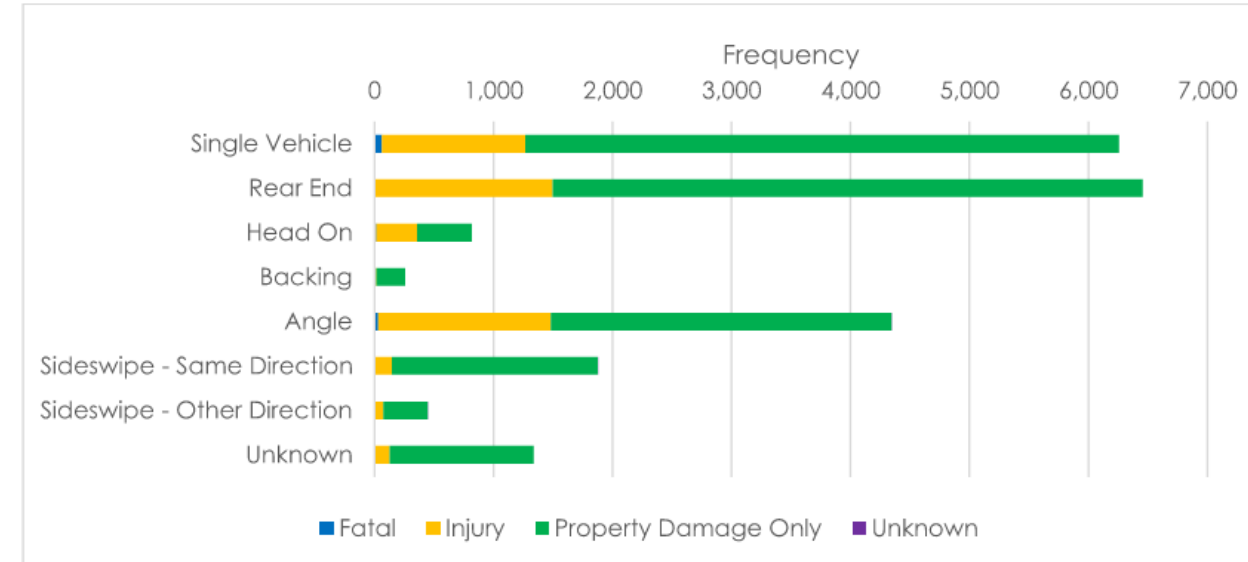


Figure 5 Crashes by type and severity (2019 - 2023)



# Crash Analysis Takeaways

2019 – 2023 crash data

- Crashes involving fatigued and impaired drivers are disproportionately severe
- Crashes involving speeding are disproportionately severe



Source: Tefft, B. C. *Impact speed and a pedestrian's risk of severe injury or death. Accident Analysis & Prevention*. 50. 2013.

# Crash Analysis Takeaways

2019 – 2023 crash data

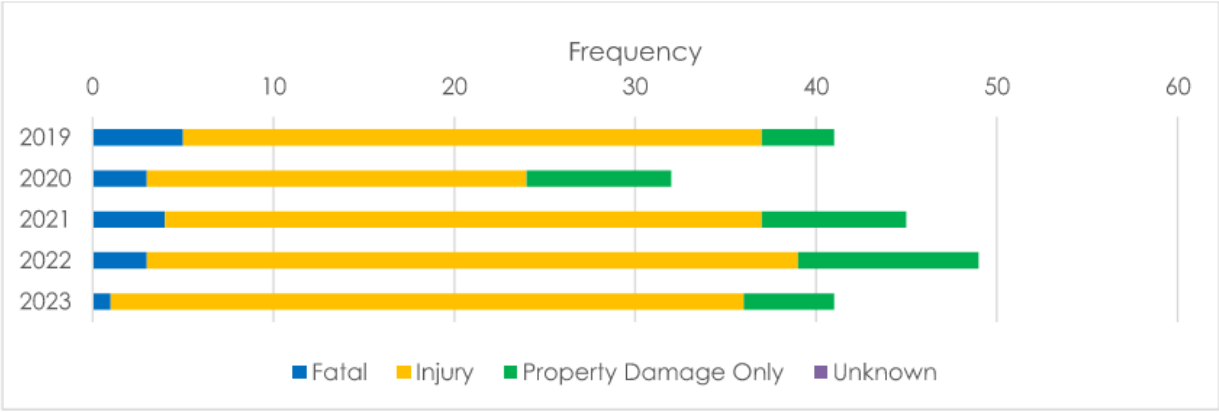


Figure 12 Pedestrian crashes by year

Severe pedestrian crash totals have not dropped.

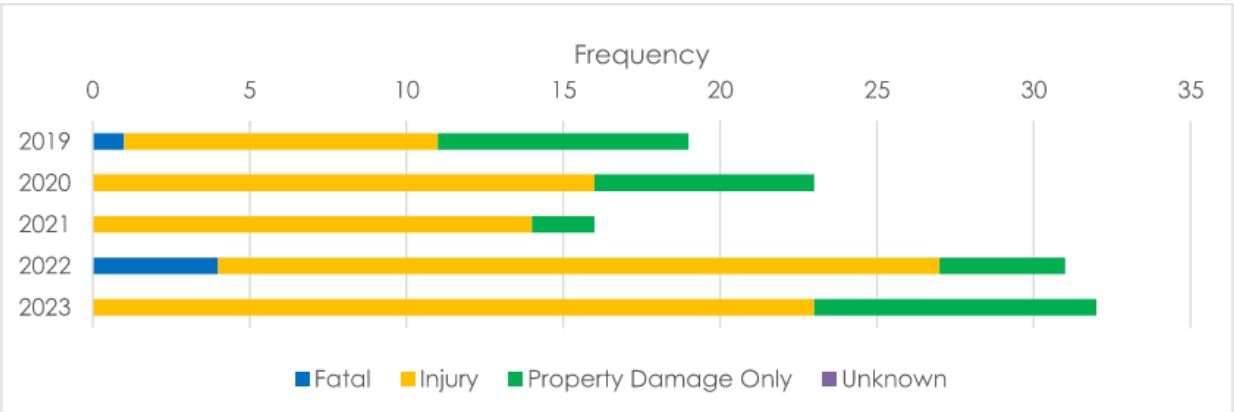
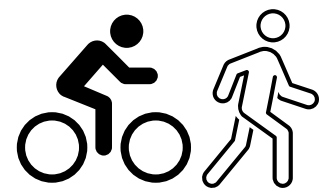


Figure 13 Bicyclist crashes per year

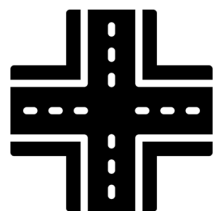
Severe bicyclist crash totals have increased.

# Recommendations

# Toolkit




## Bicycle and pedestrian crashes



## Intersection crashes



## Lane departure crashes

**Kent County Safety Action Plan:**  
Making Kent County's Streets Safer for All


### LANE DEPARTURE COUNTERMEASURES

This section details treatments to reduce lane departure crashes. Implemented systemically, these countermeasures are intended to reduce lane departure crashes that could be reasonably prevented through specific roadway design treatments. Treatments included in this section were selected based on their applicability to Kent County's geography and existing crash patterns.

#### Increase pavement friction


High friction surface treatments apply aggregate to the pavement to increase or maintain the pavement friction at a site. Increasing or maintaining appropriate pavement friction through a curve can reduce the potential for motorists to lose control of their vehicle or skid when navigating a curve. Increased pavement friction has been shown to reduce crash frequency during wet conditions and in locations with high friction demand caused by vehicle speeds or roadway geometrics.

Intersection or segment	Segment
Applicable crash types	Wet roads
Potential crash reduction	20-68%
Planning-level cost	\$35 per sq yd



Source: FHWA


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**Kent County Safety Action Plan:**  
Making Kent County's Streets Safer for All

### Provide static combination horizontal alignment/advisory curve warning signs

A static combination of alignment or advisory curve warning signs alert drivers to upcoming horizontal curves and their approximate steepness. Signs with suggested speeds can also be added to this treatment. Signs are reflective, which can reduce crashes at night or in weather circumstances with low light.<sup>3</sup>

Intersection or segment	Segment
Applicable crash types	All crashes
Potential crash reduction	13-29%
Planning-level cost	\$700 per new sign




Source: FHWA

### Install advance curve warning flashers

Circular yellow flashers caution drivers of upcoming curves and accompany horizontal alignment or advisory curve warning signs. This countermeasure can be a single beacon or multiple beacons, like if placed on both sides of a roadway.<sup>4</sup>

Intersection or segment	Segment
Applicable crash types	Curve
Potential crash reduction	5%
Planning-level cost	\$6,000 per beacon



Source: FHWA

<sup>3</sup> Source: [https://safety.fhwa.dot.gov/roadway\\_dept/horcurves/fhwasa15084/ch4.cfm](https://safety.fhwa.dot.gov/roadway_dept/horcurves/fhwasa15084/ch4.cfm)  
<sup>4</sup> Source: [https://safety.fhwa.dot.gov/roadway\\_dept/countermeasures/horcurves/fhwasa15084/ch4.cfm](https://safety.fhwa.dot.gov/roadway_dept/countermeasures/horcurves/fhwasa15084/ch4.cfm)

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# Draft improvement recommendations

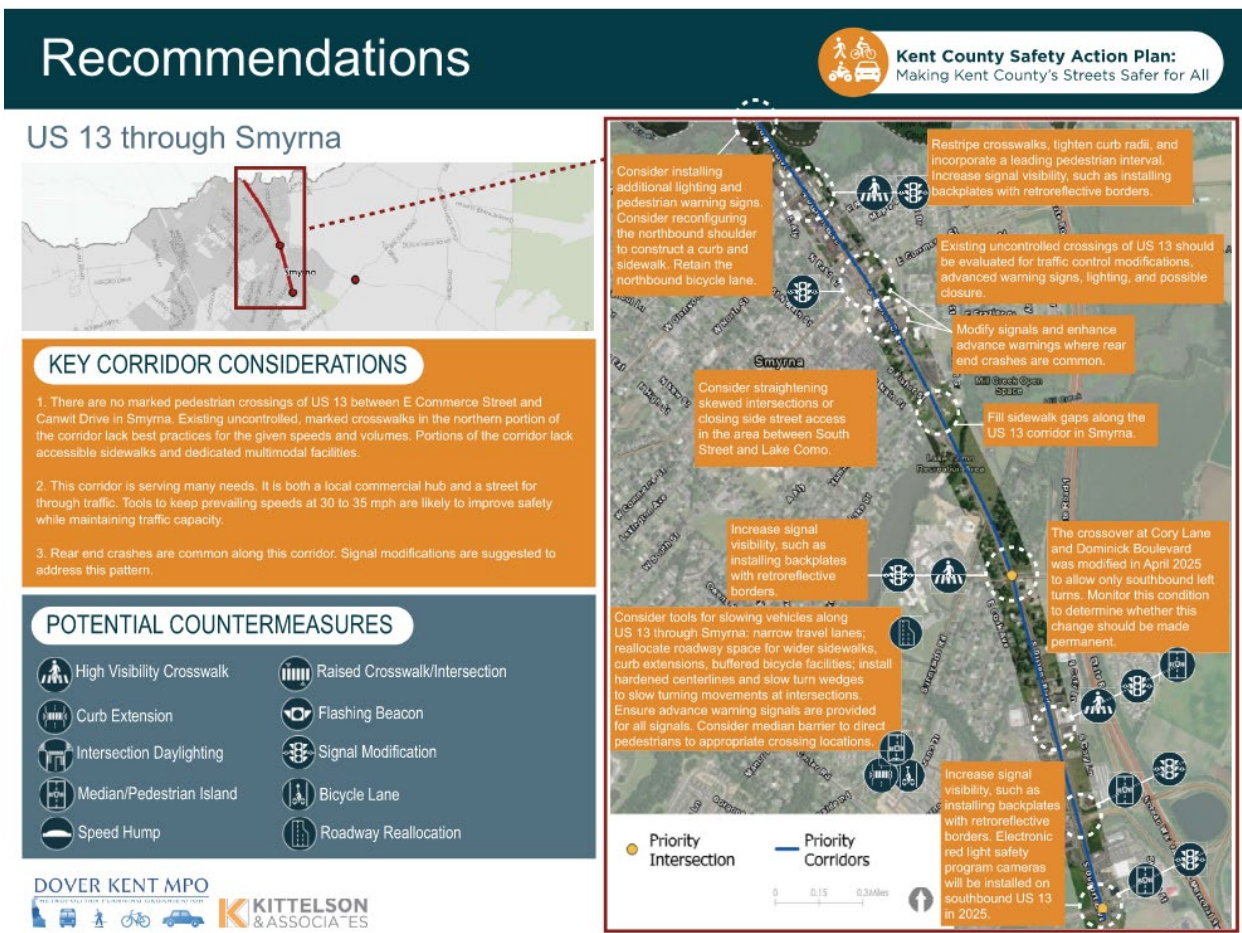
- 2% of roads in Kent County  
account for 30% of all fatal  
and suspected serious injury  
crashes.*





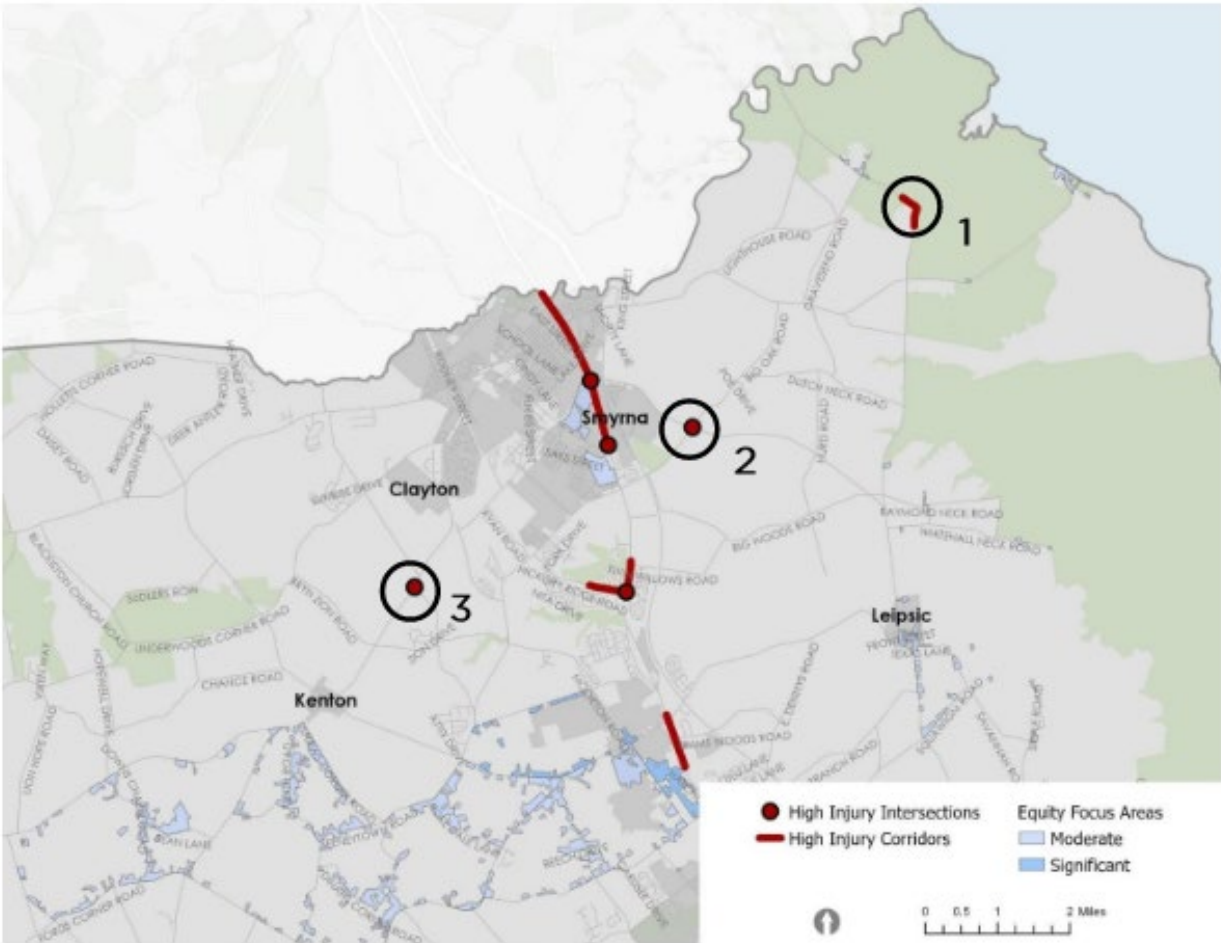
# Safety Improvements

example graphics



# Safety Improvements

example table



Location	Map ID	Top Crash Type	VRU Crashes	Key Takeaways	Potential Countermeasures
Hay Point Landing Road, Smyrna	1	SV (64%)	No bicyclist or pedestrian crashes	Many lane-departure crashes Sharp curve on road	Rumble Strips Chevrons Guiderails Improved lighting
Big Oak Road/Smyrna Leipsic Road	2	Angle (75%)	No bicyclist or pedestrian crashes	Considerable amount of dark hour crashes Young drivers are involved in majority of the crashes	Advance warning signs Roadway safety campaigns since 75% of crashes involved young or mature drivers Improved lighting
SR 15/Mount Friendship Road	3	SV (50%)	No bicyclist or pedestrian crashes	Fatalities from rear end crashes Many lane-departure crashes	Advance warning signs Rumble Strips Install or widen paved shoulder Widen edge lines

# Non-Infrastructure Recommendations



## Education

- Enhance driver education
- Education with families, children, teenagers



## Enforcement

- Enhance enforcement operations



## Policy

- Complete streets policies for municipalities
- Safe routes to school for municipalities



## Programs

- Municipal traffic calming programs
- Road safety audits

# Implementation



# Kent County Safety Action Plan

Kent County, Delaware

## Implementation Plan



**Kent County Safety Action Plan:**  
Making Kent County's Streets Safer for All

Project Information		Project Implementation					
ID	Projects	Planning Level Cost Opinion	Potential Funding Sources	Implementors & Collaborators	Priority Level	Phasing Timeline	Notes
Infrastructure Recommendations							
1	US 13 through Smyrna	\$7M	TAP, SS4A, ATIIP, BUILD, BPP, CTP, TIIF, Mun, M&R	MPO, DelDOT, DTC, Smyrna	Higher	Medium-Term	The Town of Smyrna would like to see additional pedestrian facilities, especially as new developments advance in the southern part of the Town.
2	US 13 and Hickory Ridge Road Intersection	\$1M	SS4A, CTP, CTP	MPO, DelDOT, DTC	Lower	Short-Term	Many people in the community expressed concern about this intersection.
3	US 13 through Cheswold	\$5.5M	TAP, SS4A, ATIIP, BPP, CTP, TIIF, CTF, Mun, M&R	MPO, DelDOT, DTC, Cheswold	Medium	Long-Term	
4	SR 1 / US 113 / Milford Harrington Highway	\$5.5M	TAP, SS4A, ATIIP, BUILD, BPP, CTP, CTP, Mun	MPO, DelDOT, DTC, Milford	Higher	Short-Term	These improvements connect with a number of DelDOT and City projects along US 113.
5	Scarborough Road / McKee Road / College Road Intersection	\$2M	SS4A, CTP, Mun	MPO, DelDOT, Dover	Lower	Medium-Term	
6	US 13 through Dover	TBD	TAP, SS4A, ATIIP, BUILD, BPP, CTP, TIIF, CTF, Mun, M&R, Dev	MPO, DelDOT, DTC, Dover	Higher	Short-Term (study) Long-Term (implementation)	An additional study, potentially funded through SS4A supplemental planning, is recommended to determine specific improvements. Some improvements could be implemented more quickly.
7	US 13 and Webbs Lane	\$2.5M	TAP, SS4A, CTP, Mun	MPO, DelDOT, DTC, Dover	Medium	Medium-Term	



# Kent County Safety Action Plan

Kent County, Delaware

## Implementation Plan



**Kent County Safety Action Plan:**  
Making Kent County's Streets Safer for All

Project Information		Project Implementation				
ID	Projects	Planning Level Cost Opinion	Potential Funding Sources	Implementors & Collaborators	Priority Level	Phasing Timeline
Non-Infrastructure Recommendations						
1	Enhance Driver Education	Low	NHTSA, SS4A, Mun	Municipalities, DelDOT, Schools	Higher	Medium Term
2	Conduct Education and Outreach with Children and Teenagers	Low	NHTSA, SS4A, Mun	Municipalities, Schools, Community Organizations	Higher	Medium Term
3	Enhance Enforcement Operations	Medium	NHTSA, SS4A, Mun	Municipalities, Kent County	Medium	Short Term
4	Complete Streets Policies for Municipalities	Low	Mun, SS4A, CTP	Municipalities	Higher	Short Term
5	Safe Routes to School for Municipalities	Medium	TASA, NHTSA, SS4A, Mun	Municipalities, Schools, Community Organizations	Higher	Short Term
6	Implement Neighborhood Traffic Calming Program	Medium	NHTSA, SS4A, Mun	Municipalities, DelDOT	Higher	Medium Term
7	Conduct Road Safety Audits	Low	NHTSA, SS4A, Mun	Municipalities, DelDOT	Higher	Medium Term

# SS4A grant applications

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- The MPO and City of Milford are preparing applications for Safe Streets and Roads for All (SS4A) funding, which is **due June 26, 2025**
  - A 20% match is required
  - The Safety Action Plan **must be adopted and published** before the grant due date (June 26)
- The MPO, DeIDOT, municipalities, and other parties will continue to look for other opportunities for implementation funding
- The Safety Working Group, or a subset of it, will continue to meet regularly to monitor progress in the coming years

# Thank you!

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