

# Work Zone Safety

WAPA Conference  
December 4, 2025

Wisconsin Department of Transportation

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# Overview

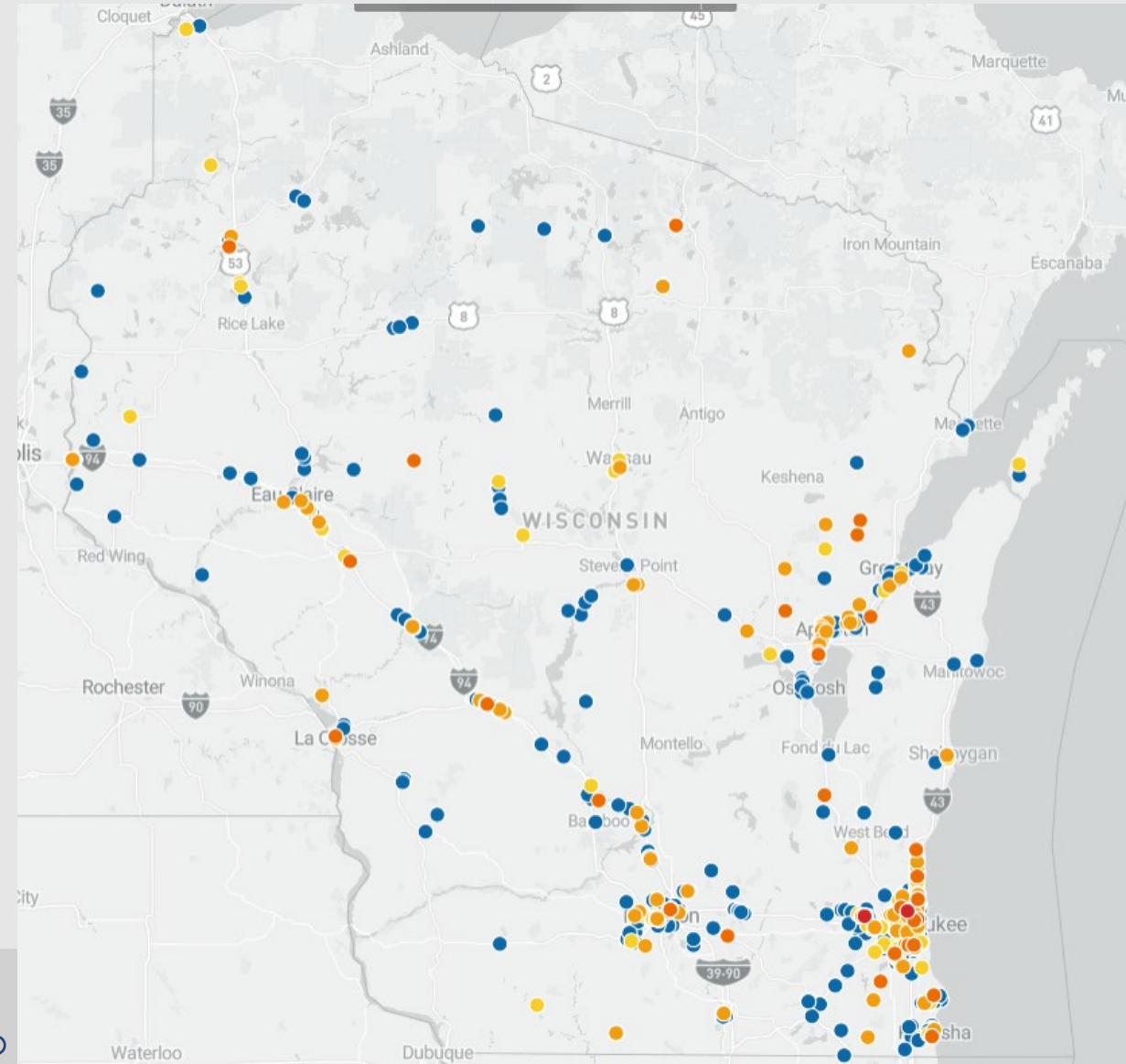
- Work Zone Crashes
- Drivers Ed Program
- State Patrol Aerial Speed Enforcement
- Digital Speed Reduction System
- Rural Work Zone Safety Pilot
- Moving Operations
- Blitz perspective
- Work Zone Mobility Rule



# 2024 Work Zone Crashes

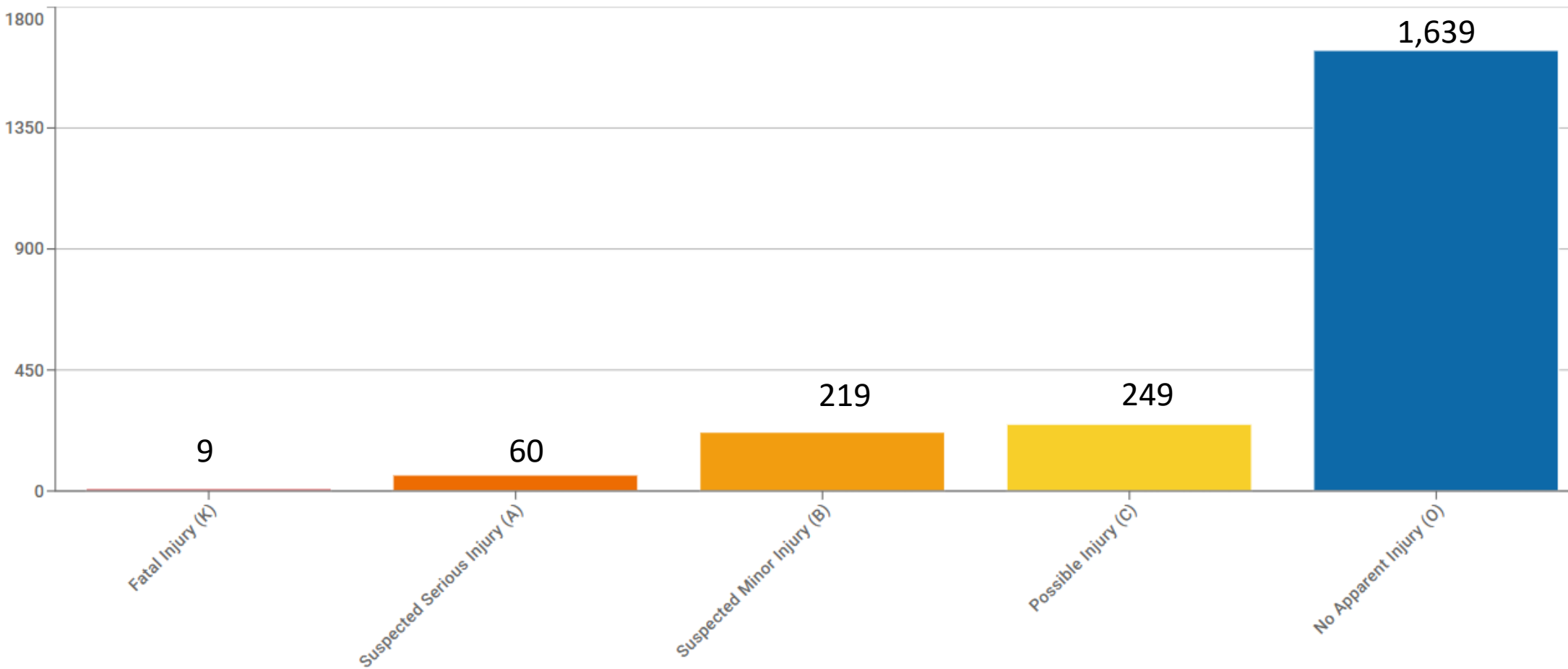
Total # of Crashes: 2,176

Total # of Fatal Crashes: 9

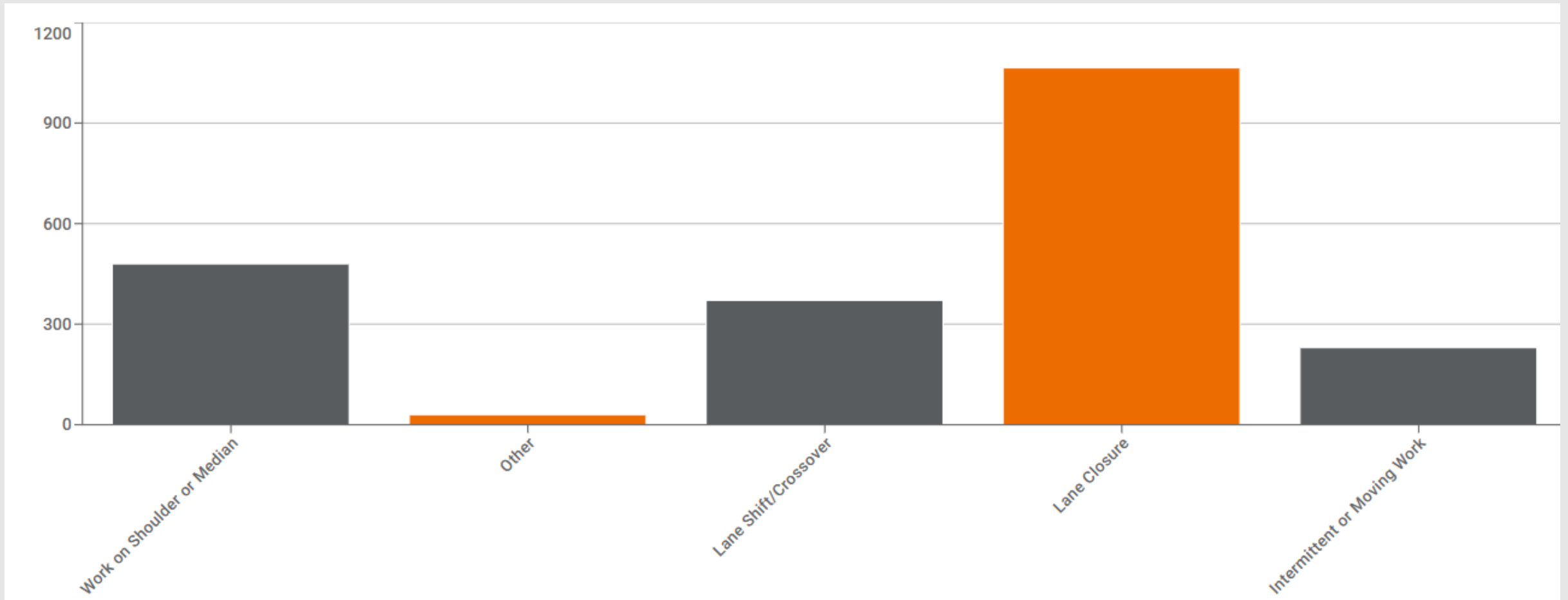


# 2024 WZ Crashes by Severity

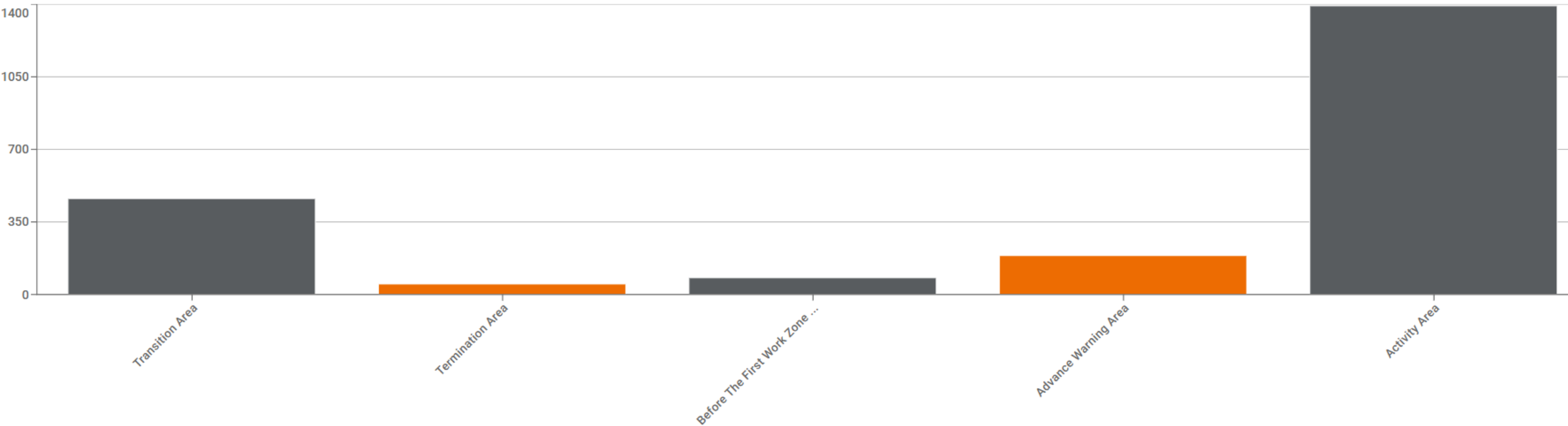
# of Crashes by Severity



# WZ Crashes by WZ Type

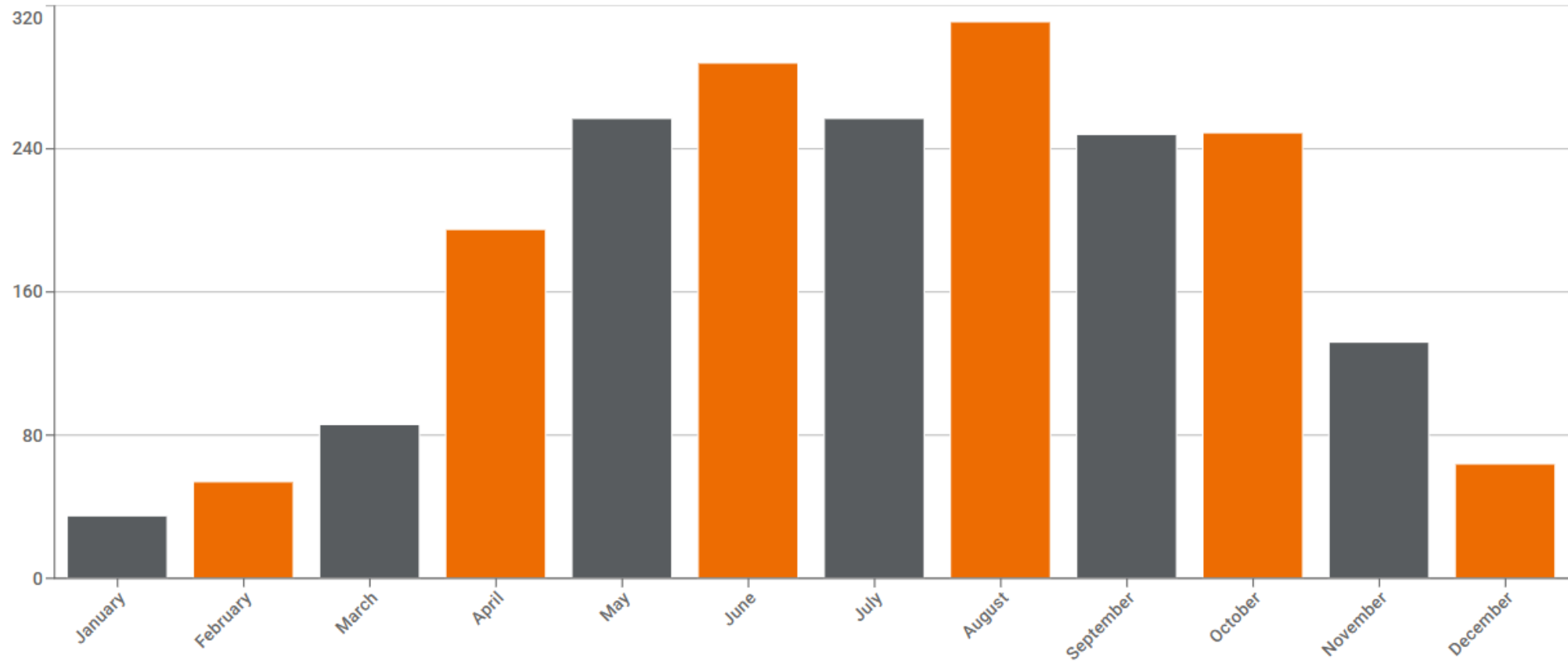


# WZ Crashes by Location



# WZ Crashes by Month

# Crashes by Month



# WZ Crashes by Manner of Collision

## Work Zone Crashes by Manner of Collision

Manner of Collision ^	Crashes v	% of Crashes v
Front To Front	38	1.75 %
Front To Rear	822	37.78 %
Front to Side	403	18.52 %
No Collision W/Vehicle In Transport	534	24.54 %
Other	18	0.83 %
Rear To Rear	5	0.23 %
Rear To Side	18	0.83 %
Sideswipe/Opposite Direction	14	0.64 %
Sideswipe/Same Direction	320	14.71 %
Unknown	4	0.18 %



# Year to Date Comparison

- January 1 to October 31, 2024 = 1,980 work zone crashes
- January 1 to October 31, 2025 = 1,787 work zone crashes



# Work Zone Safety Educational Program

2023 Wisconsin Act 160 expands the list of topics all approved driver education courses must include. Under the act, a driver education course approved by DPI or TCSB must acquaint each student with the hazards posed by highway work zones and provide at least 30 minutes of instruction in safely dealing with these hazards. Similarly, the act provides that DOT may not license a private driver school unless its approved course of curriculum also includes this component.

- Based on the law that requires at least 30 minutes of instruction on highway work zones, the recent budget included funding to support the work zone safety education program

## 14. WORK ZONE SAFETY EDUCATIONAL PROGRAM

SEG

\$120,000

**Joint Finance:** Provide one-time funding of \$60,000 SEG annually, and create a continuing SEG appropriation for a work zone safety educational program. Require DOT to award a grant to a private organization for the development of a work zone safety course that a student can complete over the internet.



# State Patrol Aerial Speed Enforcement

- Work Zone Safety Task Force
- 3 Projects, 3 Regions
  - NWR: Eau Claire County, I-94
  - SWR: Columbia County, I-39/90/94
  - NER: Outagamie/Brown County, I-41
- 21 ASU details scheduled in 2025



# Aerial Speed Enforcement Data

## I39/90/94 (Columbia County):

- 1 8/11: 12 stops – high 83 (23 over)
- 2 8/20: 8 stops – high 79 (19 over)
- 3 9/16: 15 stops – high 95 (35 over)
- 4 9/18: 38 stops – high 83 (23 over)
- 5 9/25: 15 stops – high 85 (25 over)
- 6 10/28: 15 stops, high 82 (22 over)
- 7 11/4: 34 stops - high 94 mph (34 over)
- 8 11/11 scheduled

## I94 (Eau Claire County):

- 1 6/23: 38 stops – high of 100 (40 over)
- 2 6/26 - flight cancelled, ground detail
- 3 7/17: 38 stops – high 92 (32 over)
- 4 8/4: 32 stops – high 89 (29 over)
- 5 8/18: flight cancelled, ground detail
- 6 8/25: 28 stops – high 101 (41 over)
- 7 9/12: 31 stops – high 90 (30 over)

## I41 (Outagamie County):

- 1 6/15: 25 stops – high of 90 (20 over)
- 2 8/7; flight cancelled, ground detail
- 3 8/24: 17 stops – high 85 (25 over)
- 4 9/7: 18 stops – high 99 (34 over)
- 5 9/28: 29 stops – high 93 (33 over)
- 6 10/30: flight cancelled



# Digital Speed Reduction System (DSRS)

- Allows the speed limit to be lowered remotely to reduce the exposure of workers on the side of the road covering and uncovering the speed limit signs
- Provides more consistent work zone speed limit signing
- Allows for data to be downloaded and checked to ensure speed limits are changing correctly
- More visible to the motorists with flashing beacons during reduced speeds
- Potential for better compliance to the work zone speed limit



# When to use a DSRS?

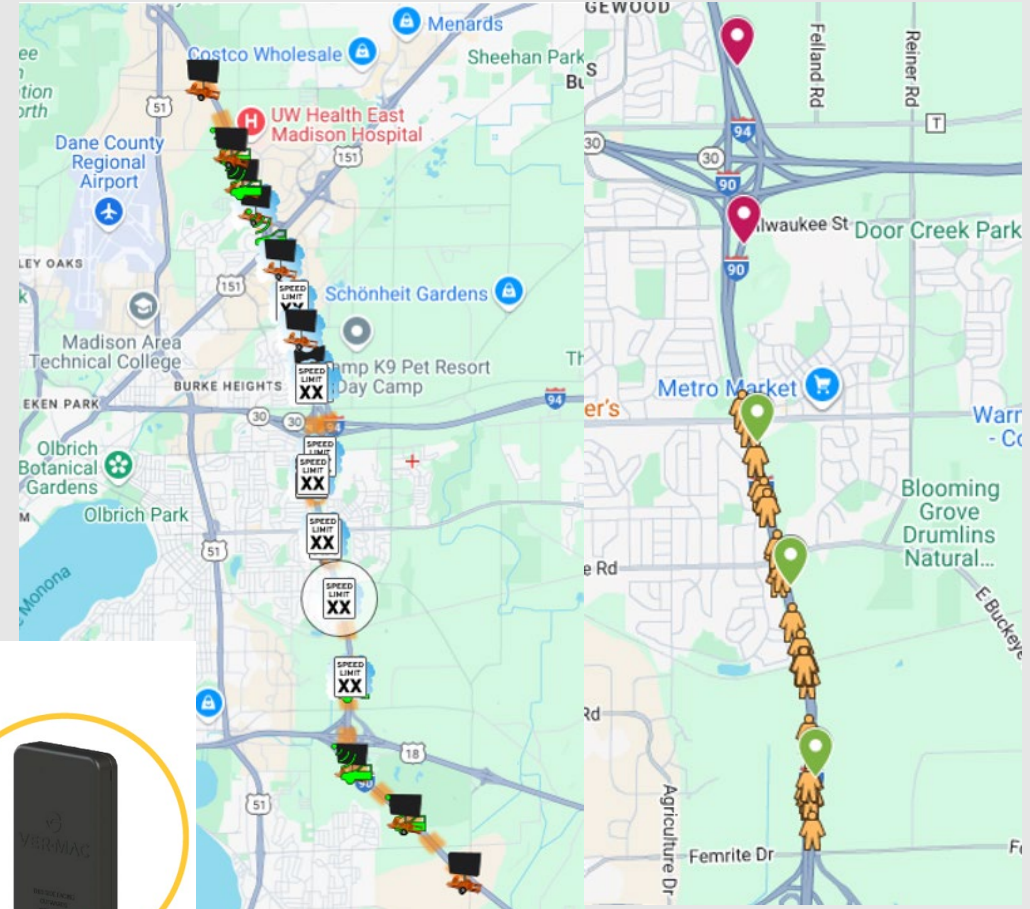
- Primarily used on resurfacing projects
- Used on projects with temporary speed limits
  - Daily/Nightly Lane Closures – temp speed limit only applies when workers are present
  - Weekly Lane Closures – temp speed limit only applies when workers are present
  - Long-Term Lane Closures – temp speed limit only applies when workers are present





# Digital Speed Reduction System

- Connected Worker Pilot Project
  - Worked with Vermac, Rock Roads and Forward Traffic Marking
  - I-39/90 in Dane County
  - Resurfacing Project
  - Speed Limit changed when workers were present with vermac connected device



# Drivers Education Program

## 2025-2027 Biennial Budget

### 14. WORK ZONE SAFETY EDUCATIONAL PROGRAM

SEG

\$120,000

**Joint Finance:** Provide one-time funding of \$60,000 SEG annually, and create a continuing SEG appropriation for a work zone safety educational program. Require DOT to award a grant to a private organization for the development of a work zone safety course that a student can complete over the internet.

- New law requiring 30 minutes of work zone in drivers ed
- Funding is to continue to maintain website for drivers to fulfill the 30-minute requirement





# Rural Work Zone Safety Pilot

## 2025-2027 Biennial Budget

### 13. WORK ZONE SAFETY PILOT PROGRAM

SEG

\$600,000

**Joint Finance:** Provide \$600,000 SEG in 2025-26, and create a continuing SEG appropriation for a work zone safety pilot program. Require DOT to establish a pilot program to test the effectiveness of enhanced highway work zone safety measures. Specify that under the program the Department shall designate not more than 10 projects on two-lane highways to participate in enhanced highway work zone safety measures and any number of additional projects to serve as control projects, and that the Department shall collect data on the effectiveness of the enhanced projects in comparison with control projects. Require DOT to prepare a report evaluating the impact of the enhanced measures on worker safety in comparison to control projects by April 30, 2027.



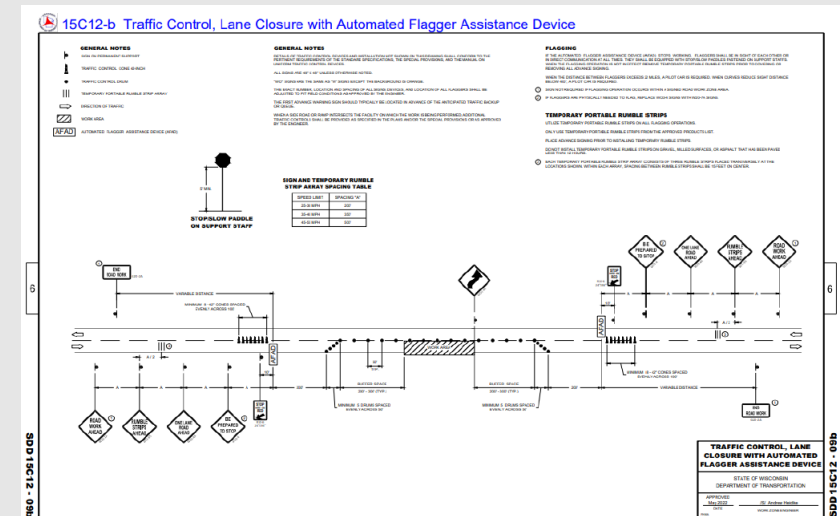
# Project Selection

- Worked with Regional Work Zone Engineers to identify projects in 2026 that have flagging
- Compiled list of projects
- Review list of projects with WTBA
- Finalized list of projects after input from WTBA
- Added new strategies to project plans with new appropriation



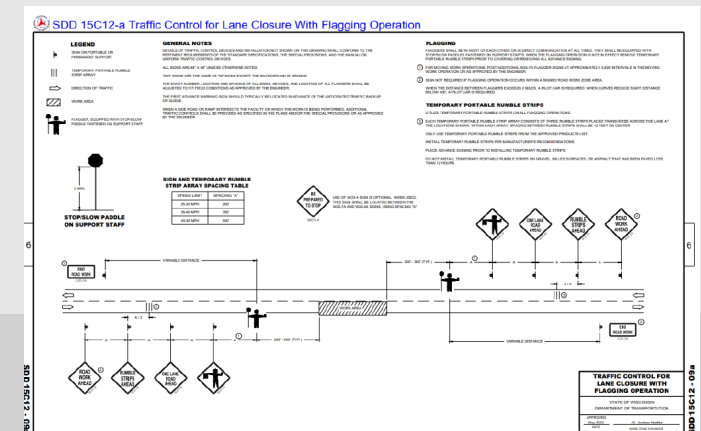
# Strategies to Evaluate

- Law Enforcement – New
- Automated Flagger Assistance Devices – will be a paid item
- Speed Feedback Trailer – New
- Alert Warning System - New



# Strategies to Evaluate

- Digital Speed Reduction System – New
- Connected Arrow Board and Connected Work Zone Location Markers – New
- SDD15C12 – Current Standard



# Project Selection

- 3 different types of projects for data collection
  - Install only the “new” strategy
  - Install the “new” strategy in one direction and use SDD 15C12 for opposite direction
  - Do not install any “new” strategy, just use SDD 15C12
- Collect data 2 weeks after project has started

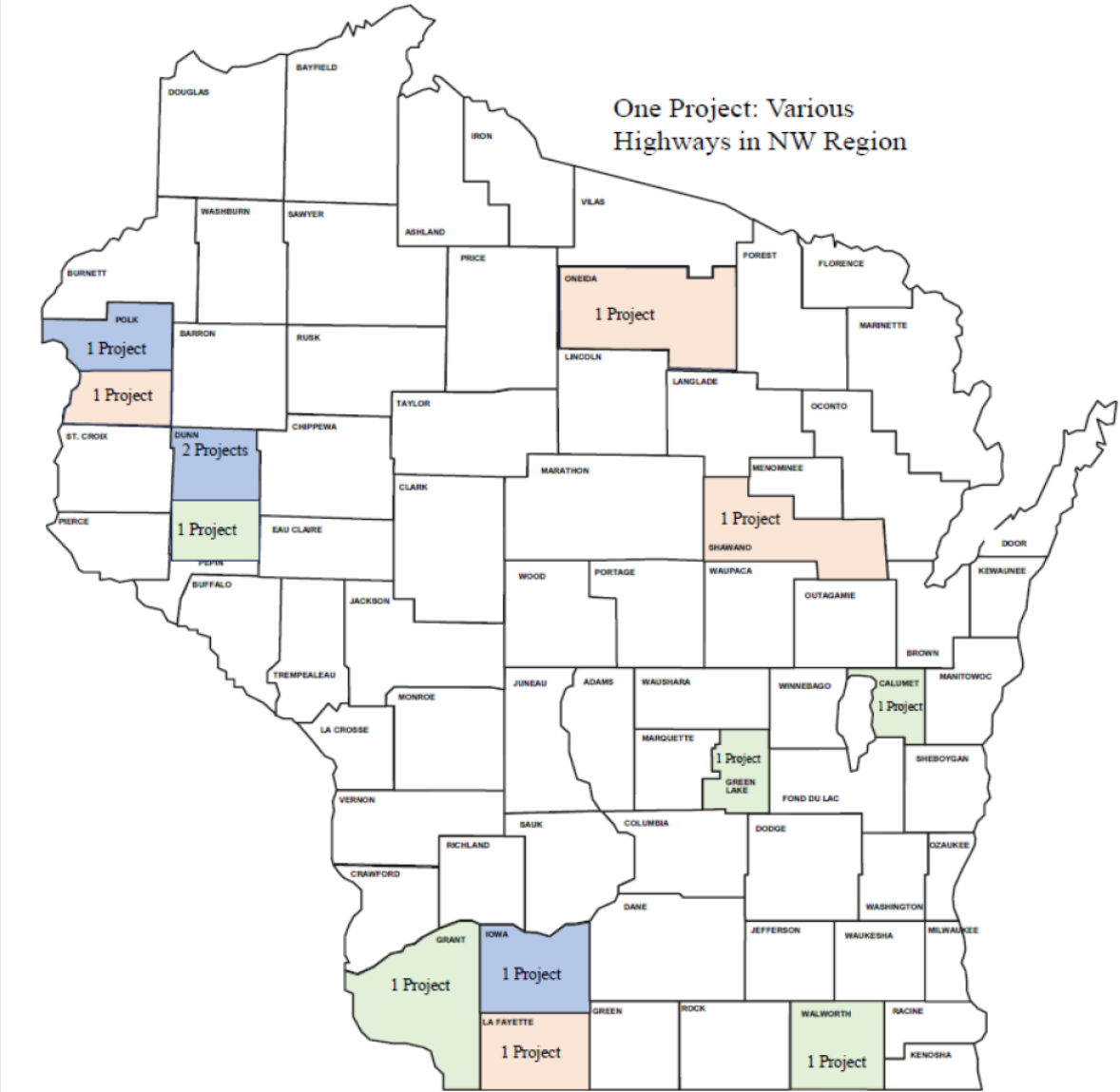




Final															
Strategy	#	Project ID	Construction ID	Title	Subtitle	Route	County/ Region	Type	PM	PS&E Date	Let Date	AADT	Project Length (miles)	Duration (days)	3 year Crash History (2022-2024)
INSTALL STRATEGY WHEN PROJECT STARTS (COLLECT DATA IN ONE DIRECTION. ONCE WHEN FIRST DELPOYED AND AGAIN AFTER DEPLOYED FOR 2 WEEKS, IF FEASIBLE)															
Law Enforcement (LE)	1	5939-00-02	5939-00-72	COBB - AVOCA	KENNEDY STREET TO 0.27 MILE N CTH I	STH 80	Iowa / SW	Resurfacing	Joshua Nelson	8/1/2025	11/11/2025	2500	1.98	75	5
Automated Flagger Assistance Device (AFAD) with LE	2	7600-00-02	7600-00-72	MENOMONIE - EAU CLAIRE	STH 29 TO PRINCETON DRIVE	USH 12	Dunn / NW	Resurfacing	Cameron Shiffer	8/1/2025	11/1/2025	4110	1.24	163	--
AFAD with LE	3	8620-00-05	8620-00-75	ELK MOUND - BLOOMER	USH 12 TO CTH M	STH 40	Dunn / NW	Resurfacing	Cameron Shiffer	8/1/2025	12/9/2025	4370	9.08	163	48
Speed Feedback Trailer with LE	4	8030-00-00	8030-00-70	AMERY - MILLTOWN	USH 8 TO STH 35	STH 46	Polk / NW	Resurfacing	Cameron Shiffer	8/1/2025	12/9/2025	3710	11.42	187	29, 1 fatal
Alert Warning System	5	0653-31-10	1000-18-64	VARIOUS HIGHWAYS, NW REGION WIDE		VARIOUS	VARIOUS / NW	Epoxy Marking	Jeannie Silver	8/1/2025	12/9/2025	--	--	--	--
INSTALL STRATEGY IN ONE DIRECTION AND USE STANDARD DETAIL DRAWING (SDD) 15C12 IN OPPOSITE DIRECTION (COLLECT DATA IN BOTH DIRECTIONS, EXCEPT #2. ONCE WHEN FIRST DELPOYED AND AGAIN AFTER DEPLOYED FOR 2 WEEKS, IF FEASIBLE)															
Digital Speed Reduction System (DSRS) with LE	1	7120-00-04	7120-00-74	DURAND - EAU CLAIRE	CTH O TO 1010TH STREET	STH 85	Dunn / NW	Resurfacing	Karen Richardson	11/1/2025	2/10/2026	3200	4.3	110	17, 1 fatal
AFAD with LE	2	52150331	5215-03-61	Cassville - Lancaster	SCHOOL STREET TO CTH Y	STH 81	Grant / SW	Resurfacing	Cody Kammerzelt	11/1/2025	4/14/2026	1530	2.56	36	13, 1 Fatal
Speed Feedback Trailer with LE	3	4085-67-00	4085-67-71	New Holstein - Chilton	Altona Ave to USH 151	STH 32/57	Calumet / NE	Resurfacing	Kristen Berg	5/1/2025	8/12/2025	5950	4.57	60	30
DSRS with LE	4	1430-08-12	1430-08-82	Princeton-Ripon	CTH A to Fond du Lac CL	STH 23	Green Lake / NC	Resurfacing	Tim Hanley	5/1/2025	8/12/2025	8720	4.68	55	70
Connected Arrow Board (CAB)and Work Zone Zone Location Markers (WZLM) with LE	5	31100303	3110-03-73	MILTON TO WHITEWATER	WEST CL TO WILLIS RAY RD	WIS 59	Walworth / SE	Resurfacing	Gary Metzger	5/1/2025	8/12/2025	3600	2.63	60	46
USE SDD 15C12; CONTROL GROUP (COLLECT DATA IN ONE DIRECTION. ONE WEEK ONLY)															
SDD 15C12	1	55900501	5590-05-71	Argyle - Mt Horeb	LIEN COURT TO NORTH JUNCTION CTH H	STH 78	Lafayette / SW	Resurfacing	Joshua Nelson	11/1/2025	4/14/2026	2430	6.32	155	20, 1 fatal
SDD 15C12	2	1600-29-01	1600-29-71	Monico-Eagle River	USH 8 to STH 32	USH 45	Oneida / NC	Resurfacing	Felix Ogles	5/1/2025	8/12/2025	1780	16.45	145	35, 1 Fatal
SDD 15C12	3	6580-13-01	6580-13-71	Clintonville-Howard	STH 47 to STH 55	STH 156	Shawano / NC	Resurfacing	Tim Hanley	5/1/2025	9/9/2025	1170	5.99	34	9
SDD 15C12	4	1570-00-08	1570-00-78	ST CROIX FALLS - TURTLE LAKE	STH 35 N TO STH 46 S	USH 8	Polk / NW	Resurfacing	Beth Cunningham	5/1/2025	10/14/2025	8670	9.62	--	61, 3 fatal



Date	Deliverable
September 2025	Contracts in-place
October 2025	Kick-Off Meeting
February 2026	Review Proposed Data Collection Plan
April 2026 - July 2026	Data Collection
September 2026	Draft Report
October 2026	Final Report and Presentation of Findings
October 2026	Add Feasible Strategies to Projects with Nov PSE
April 2027	Per State Statute - Project Needs to Be Completed



# Data Collection

- May have challenges
  - Operations may move down the road several times throughout the day or each day
  - Repositioning advance warning area
- Completed by Consultant:
  - Crash data
  - Speed Data
  - Near Misses
  - Observations



# Summary and Evaluation

- Provide summary of each “new” strategy
- Provide recommendations for future implementation to improve work zone safety
- Presentation and Final Report



# Work Zone Safety Task Force

## Moving Operations Sub-Task Force

- WisDOT has seen many Truck/Trailer Mounted Attenuators struck in 2025
- Marking contractors reached out with a question about modifying the work zones
- WisDOT looking into two alerting systems
  - Alpha Safenet
  - Alert Warning System



# I-894 Blitz WisDOT Perspective

- Born out of a failed 2023 Letting
  - Tight timelines, 24% overestimate
- Relet in July 2024
  - Expanded timelines
  - 54-hour weekend closure option
- 2025 Project
  - Inlet issues w/limited inside shoulder
  - Milled all the way down, paved in 2 layers back



## HALE INTERCHANGE

I-41/43/894 Airport Freeway - 84th Street to Lincoln Avenue/Hale Interchange  
September 2025

## PROJECT BRIEF

### 54-Hour Closure of I-41/43/894 Southbound

The Wisconsin Department of Transportation (WisDOT) is continuing resurfacing along I-41/43/894 through the Hale Interchange in Milwaukee County. This project is part of ongoing efforts to enhance safety and extend pavement life. Work is expected to be completed in late 2026. The following work is scheduled to take place as part of this project.

#### Friday, October 3, 11 P.M.-

#### Monday, October 6, 5:30 A.M.:

- I-41/894 southbound, between Greenfield Avenue and the Hale Interchange is scheduled to close to traffic while crews work on asphalt paving.
- Both the W-S and E-S system ramps in the Zoo Interchange will be closed during these operations.
- A southbound left lane closure will remain in place from Lincoln Avenue to the Hale Interchange until paving is completed on Monday, October 13.

#### Friday, October 10, 11 P.M.-

#### Monday, October 13, 5:30 A.M.:

- I-41/894 southbound, between Greenfield Avenue and the Hale Interchange is scheduled to close to traffic while crews work on asphalt paving.
- Both the W-S and E-S system ramps in the Zoo Interchange will be closed during these operations.

#### Detour from I-94:

Motorists are encouraged to use the I-94 exit to WIS 100, WIS 100, and Layton Avenue to get around these closures.

#### Detour from I-41 southbound:

Motorists are encouraged to use the I-41 southbound exit to Greenfield Avenue (WIS 59), Greenfield Avenue, WIS 100, and Layton Avenue to get around these closures.



Please note that all work is weather dependent and subject to change.

The project team thanks you for your patience and cooperation throughout this project!



VISIT THE PROJECT WEBSITE AND  
SUBSCRIBE FOR UPDATES.

#### PROJECT CONTACT:

RACHEL ANDREOLI; RANDREOLI@HNTB.COM  
(414) 758-9386  
PROJECTS.511WI.GOV/41HALE/



# I-894 Feedback

- Traffic responded well
- Good feedback from the public
- Good ride quality
- Eliminated 26 miles of cold joints
- Reduced worker exposure to traffic
  - Generally safer
- Cost saving to the taxpayers





# I-894 WisDOT Planning and Logistics

- Finding the right project
  - Available detour routes with capacity
- Contractor Workshops
  - Identify available contractors
  - Need to have competitive bidding
- Identify detour route updates
  - Signal timings
- Law enforcement assistance



# Work Zone Mobility Rule Updates

- 23 CFR 630 Subpart J and K updates
  - Subpart J relates to work zone program management
  - Subpart K relates to temporary traffic control devices
- Subpart K is on the road to being updated first
  - Positive protection in work zones on high speed roadways with no means of escape
  - WisDOT will be making updates in our FDM 11-50-35



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