



Wrong Way Driving Initiative

Bureau of Traffic Operations

Traffic Tech Talk

2026

Outline

- History
- Data and Analysis
- System Improvements
- Traffic Management Center Role
- Alert System Overview
- Going Forward



History

- 2010-2012: Series of WWD crashes focused attention on Milwaukee Co.
- 2012-2015: Installed additional signs and markings at ~250 ramps in southeast region.
 - Piloted WWD alert systems
- 2016: Installed additional detection equipment with camera confirmation

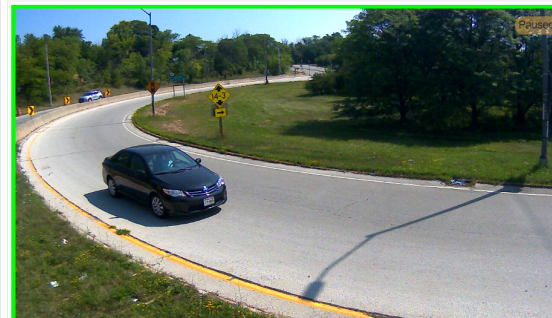
Detective: Wrong-way drivers remain a serious problem

Waukesha detective has seen little improvement in 29 years



Wrong Way Detection

08/20/2023 10:41:11 AM CDT (I-94 WB at Hawley Rd CCTV I-94 E-W @ Mitchell Blvd)



Correct Traffic Flow: 

BlinkLink

System: I-94 WB at Hawley Rd CCTV I-94 E-W @ Mitchell Blvd Alert Time: 08/20/2023 10:41:11 AM CDT



Click thumbnail to view



History

- 2016 – 2017
 - Renewed focus on old but persistent issue
 - Worked with law enforcement to notify TMC when WWDs were identified
 - TMC began posting messages on DMS during active wrong way events
 - New crash report form (DT4000) included attributes to better code WWD crashes



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20-166649

**WISCONSIN MOTOR VEHICLE
CRASH REPORT**

MILWAUKEE COUNTY SHERIFFS OFFI
821 W STATE ST RM 221
MILWAUKEE, WI 53233
(414) 278-4712

UNIT VEHICLE	Color GRY - GRAY	Body Style SD - SEDAN	Bus Use
	Initial Contact Point 99 - UNKNOWN	Vehicle Damage 07 - LEFT REAR CORNER, 08 - LEFT SIDE REAR, 09 - LEFT SIDE MIDDLE, 10 - LEFT SIDE FRONT, 11 - LEFT FRONT CORNER	
	Extent Of Damage FUNCTIONAL DAMAGE	Towed Due To Damage NOT TOWED	
	Vehicle Removed By	Vehicle Factors UNKNOWN	
UNIT VEHICLE	What Driver Was Doing LEAVING TRAVEL LANE	Driver Prior Action Other	
	Driver Actions EXCEED SPEED LIMIT, WRONG SIDE OR WRONG WAY, FAILED TO KEEP IN DESIGNATED LANE, OPERATED MOTOR VEHICLE IN AGGRESSIVE/RECKLESS MANNER, OPERATED MOTOR VEHICLE IN INATTENTIVE, CARELESS OR ERRATIC MANNER		



History

- 2018 – 2024
 - Continued to monitor incident and crash data
 - Additional signs and pavement marking installed at locations with known WWD
 - Continued discussions at County TSCs, Governor's Conference on Highway Safety, and various peer exchanges



Available Data

- Crash data

- Crashes are rare
- Wrong way entry points are difficult to identify from crash reports

VEHICLE	Driver Actions
	WRONG SIDE OR WRONG WAY, FAILED TO KEEP IN DESIGNATED LANE

Crash Report

- Incident data

- Two sources
 1. WWDs reported to TMC by law enforcement
 2. WWD Alert systems (30 statewide)
- Data is not all encompassing

Wrong Way Driver (WWD) Incident Form	
Main	Notes, Video
WWD ID:	<input type="text"/>
Date	<input type="text"/> Time <input type="text"/> County <input type="text"/>
WWD Begin Location:	
State Highway	<input type="text"/>
Cross Street	<input type="text"/>
WWD Exited/Lost Visual:	
State Highway	<input type="text"/>
Cross Street	<input type="text"/>
<input type="button" value="Save"/>	
<input type="button" value="Edit"/>	
<input type="button" value="Clear Data"/>	
<input type="button" value="Print"/>	
<input type="button" value="Exit"/>	

Incident Report



2017-2023 Crash Data

	Total	Fatal	A-Injury	B-Injury	C-Injury	Property Damage Only
All Crashes on Divided State Highways	170,593	775	3,607	17,588	21,067	127,556
	-	0.5%	2.1%	10.3%	12.3%	74.8%
	Divided State Highway Crashes = Crashes on divided IH, USH, or STH					
Wrong Way Crashes on Divided State Highways	819	66	86	141	86	440
	0.48%	8.1%	10.5%	17.2%	10.5%	53.7%

Note: Cross median crashes were not removed from this dataset.



41 41 894 45
To Chicago
Fond du Lac
RAMP 25 MPH

94 EAST
Milwaukee
RAMP 25 MPH

INTERSTATE 94 EAST
To INTERSTATE 41 INTERSTATE 894
41 45
Milwaukee
25 MPH

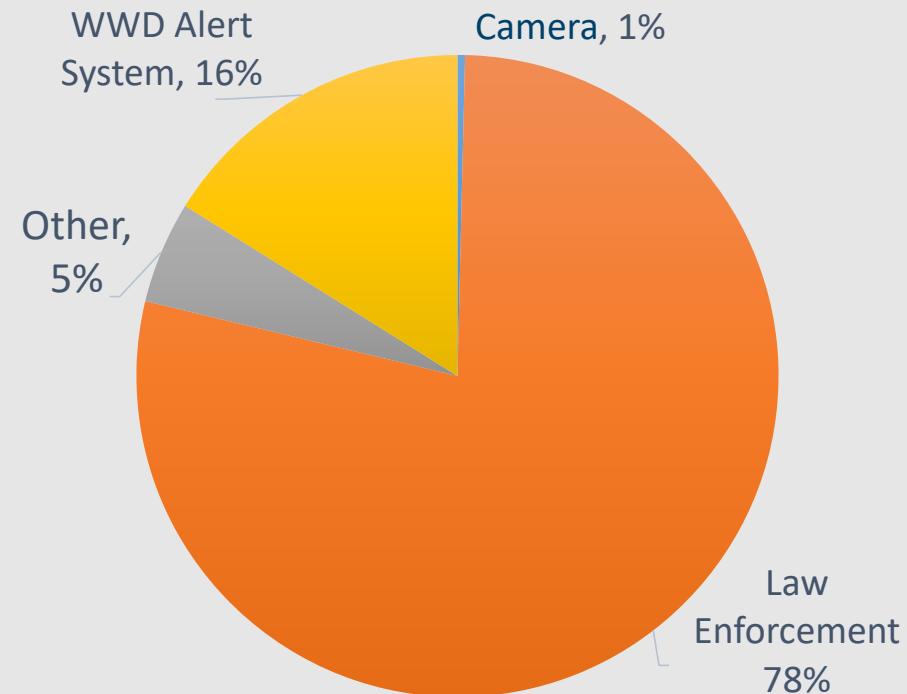
WRONG WAY

WRONG WAY

WRONG WAY

Incident Data

- About 5,200 WWD incidents reported across Wisconsin
 - 2012 through 2025
- Communication from statewide law enforcement agencies or dispatchers. Reporting is either...
 - Real-time of live event
 - After the fact



Risk of WWD

Increases at side-by-side ramps
(partial cloverleaf interchanges)



Increases when two-way frontage
roads are adjacent to access-
controlled facilities



Photos from Google Maps

System Improvements

- Additional oversized signs – some mounted lower based on impaired drivers' line of sight
- Dashed turn path markings



System Improvements

- Reflective strips on sign posts
- Right way arrows
- Medians at side-by-side ramps
- Signal arrows instead of circular indications at look ahead left-turn lanes



System Improvements

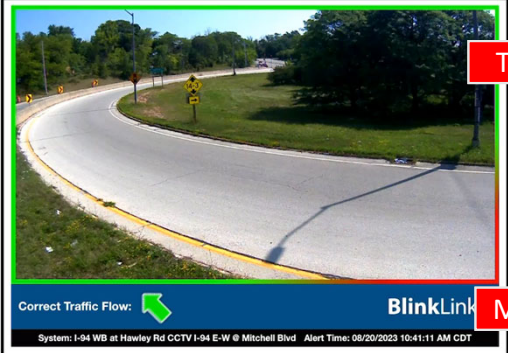
- LED Blinker signs and LED backlit signs (LEGENDVIZ^(R))
- Detection / alert systems with camera confirmation



Traffic Management Center Role

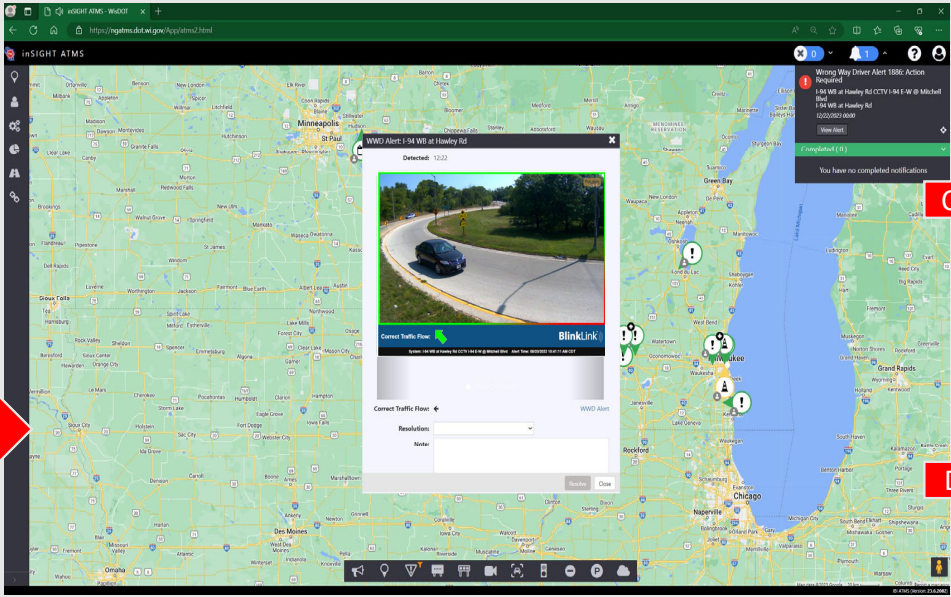
- Wrong way driver detection
- Real-time reporting
- After-the-fact reporting





TMC

MCSO



CCTV

DMS

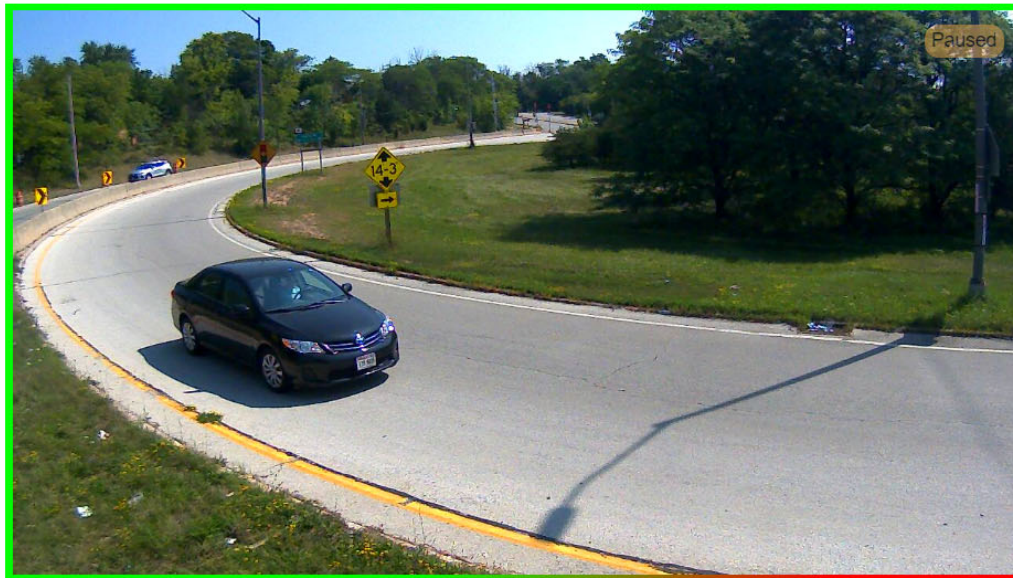


**WRONG WAY DRIVER
REPORTED
USE CAUTION**



Wrong Way Detection

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Click thumbnail to view

7 of 14



< Prev Alert

Next Alert >

Alert Resolution

Select Resolution

- Unresolved
- Authorized Vehicle - Emergency Response
- Authorized Vehicle - Maintenance
- False Positive - Animal Trigger
- False Positive - No Vehicle Present
- False Positive - Right Way Object Trigger
- False Positive - Weather Trigger
- Incompliant Vehicle - Backed Up
- Incompliant Vehicle - Median Crossing
- Non-Vehicle - Bicycle
- Non-Vehicle - Pedestrian Detection
- Test Event - System Testing
- Wrong-Way Vehicle - Continued Wrong-Way
- Wrong-Way Vehicle - Result Unconfirmed or Unknown
- Wrong-Way Vehicle - Self-Corrected**

Notes

Cancel Save



Real-Time WWD Reports

Law Enforcement Agency contacts Traffic Management Center (TMC)

Dynamic Message Sign (DMS) activated, if available

If located on traffic camera, TMC will contact Law Enforcement

Traffic camera video reviewed to see if WWD can be located



Advanced Traffic Management System (ATMS) incident created

TMC attempts to locate on traffic camera

If WWD is not located by TMC or Law Enforcement after 10 minutes, DMS will be removed

If located on video review, TMC will contact Law Enforcement with resolution

I-43 @ WRIGHT ST



After the Fact WWD reports

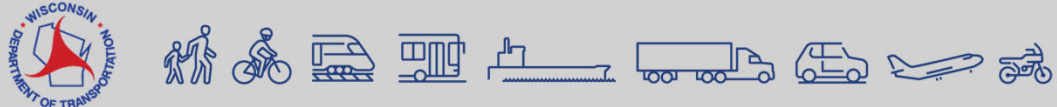
TMC contacted about WWD

Incident documented in the Significant Incident Notification System (SINS)

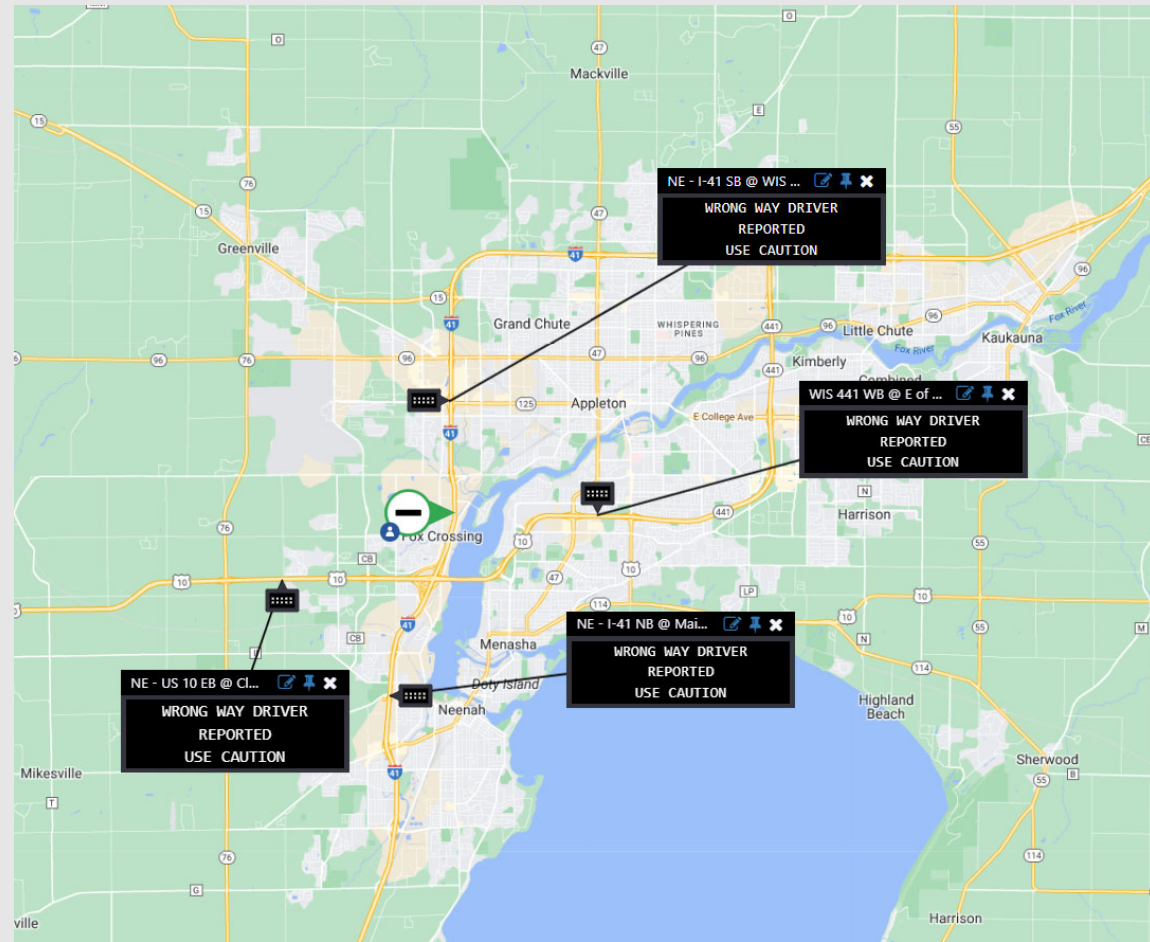
Email notification sent by TMC

TMC Report Form

Weekly Report to WisDOT stakeholders

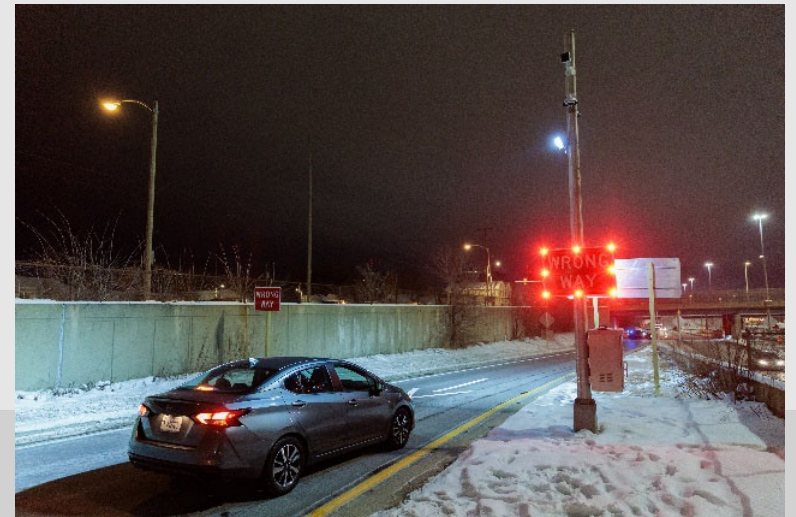


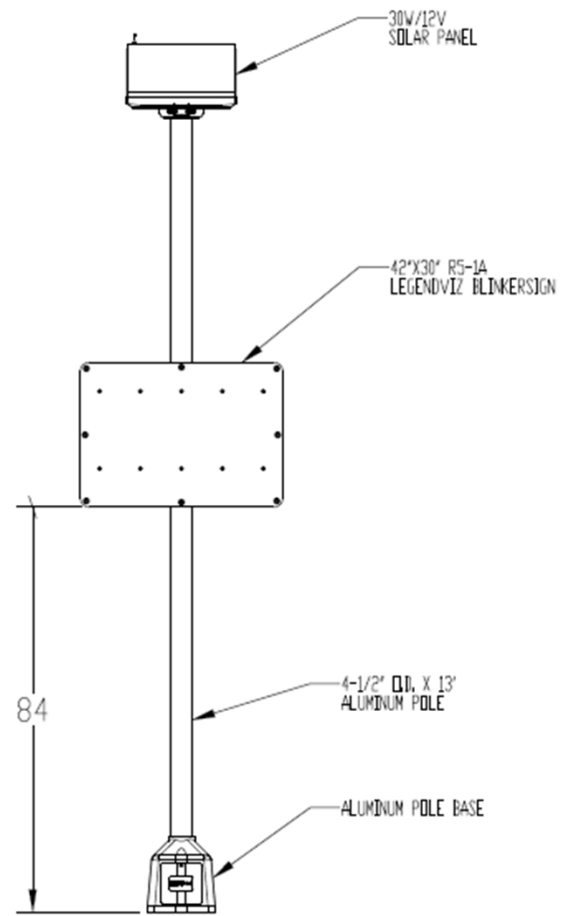
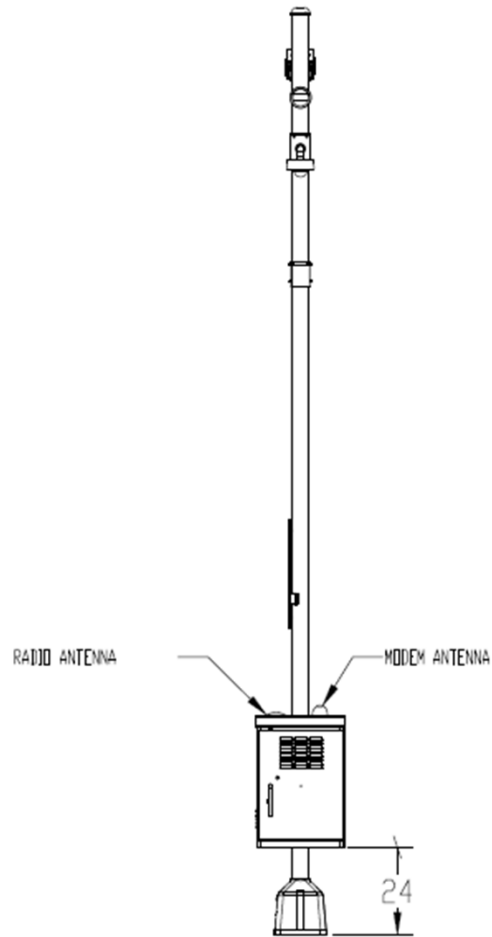
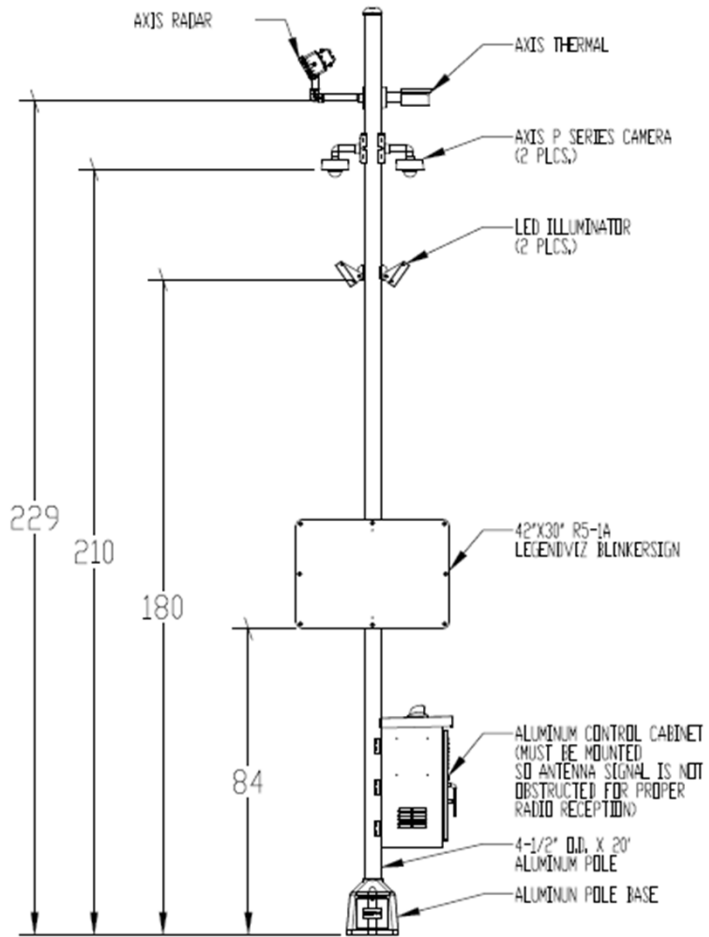
- If located on camera, TMC operators will follow the vehicle while communicating with LE
- Signing in both directions until confirmed
- 9 miles from event reported location
- 10 minutes unless confirmed



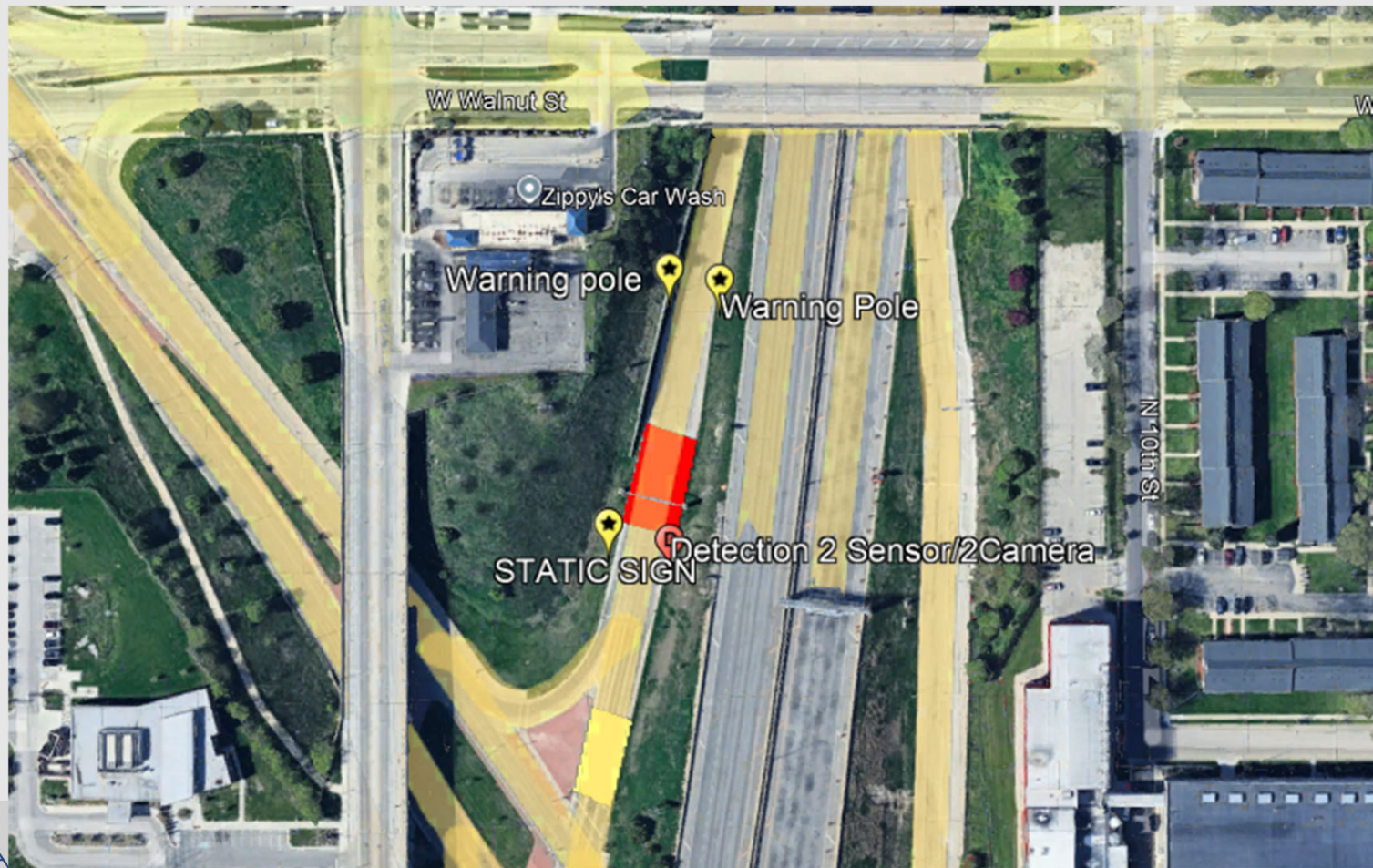
Alert System Overview

- Radar sensor turns on Wrong Way signs when vehicle is detected.
- Thermal camera triggers BlinkLink alert to first responders.
- Confirmation cameras capture images of WWD and include them in BlinkLink alerts.
- Integration into ATMS





Detection Example: I-43 SB and STH 145



FIVE CLUES
you may be driving
the wrong way



- 1** You see this sign. 
- 2** The pavement arrows are pointing at you. 
- 3** The white line is on your left and the yellow is on your right. 
- 4** You see the backs of many signs. 
- 5** If you miss all those, here's your sign! 

Driving the wrong way?



-  Stop
-  Safely pull over
-  Wait for safe gap in traffic
-  Turn around



What to do if you see a wrong-way driver



-  Use caution
-  Reduce your speed
-  Safely pull over
-  Call 911 to report location



Public Outreach

wisconsindot.gov/wrongway

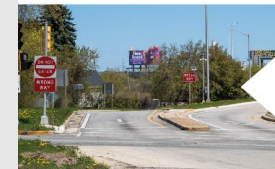
Going Forward

- WWD Task Force
- More enhanced signing
- Stepwise guidance
- Monitoring research and national best practices
- Considering temporary installations

Safety measures to reduce wrong-way driving



Oversized signs with reflective strips



Additional signs at side-by-side ramps



Camera detection systems across the state



Dashed markings on pavement

