

34TH DBE WORKSHOP & SECRETARY'S GOLDEN SHOVEL AWARDS

Diversifying
Contracts in
Design and
Construction



Work Zone Safety/Flagger Certification

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34TH ANNUAL DBE WORKSHOP & SECRETARY'S GOLDEN SHOVEL AWARDS



- Work Zone Crashes
- Flagging
 - Flagging Handbook
 - Flagger Training
 - Flagger Certification
- Smart Work Zones
- Work Zone Awareness Week

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Work Zone Crashes per Year 2015 to 2019

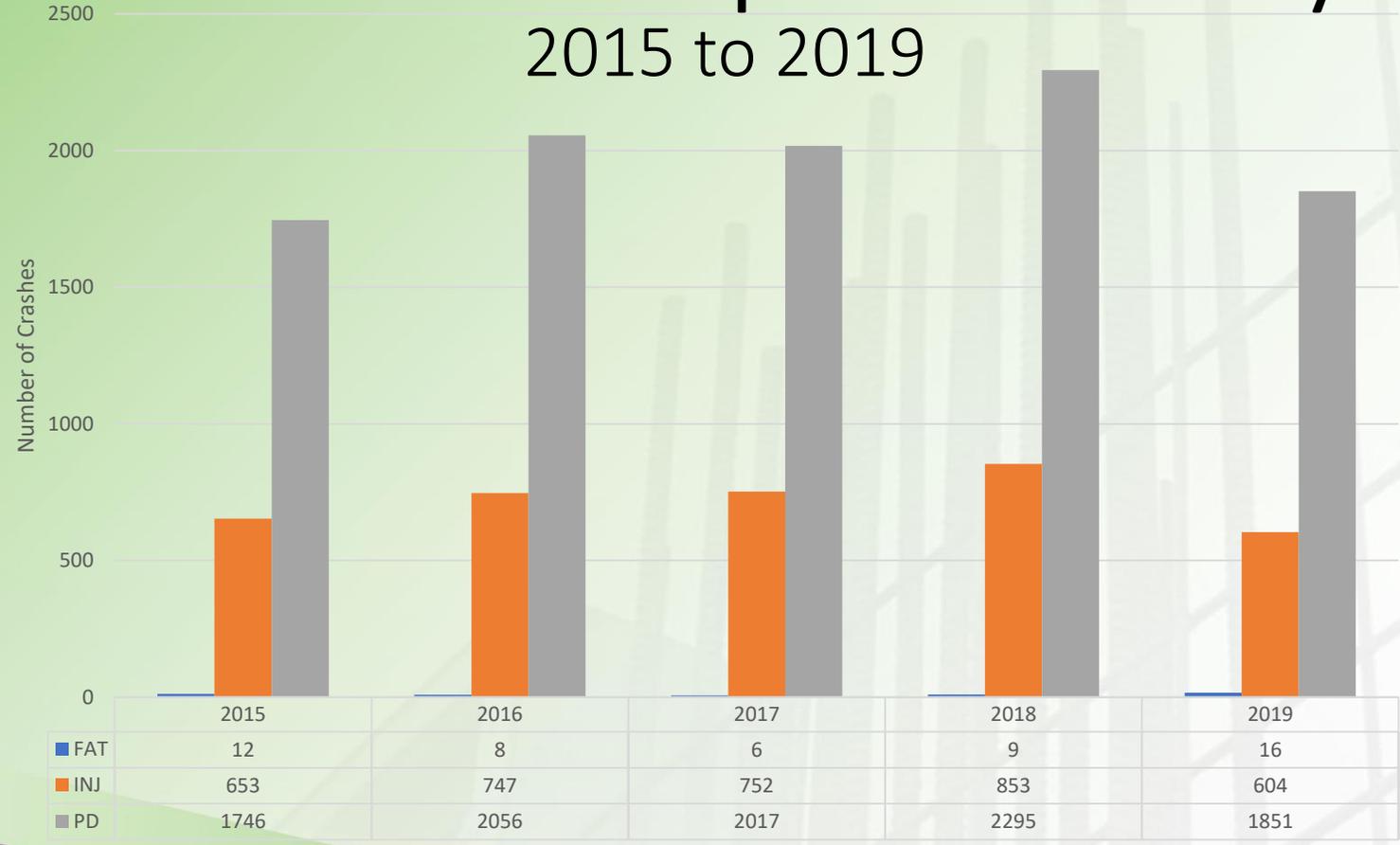


** 2019 are preliminary crash statistics **

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Work Zone Crashes per Year by Severity

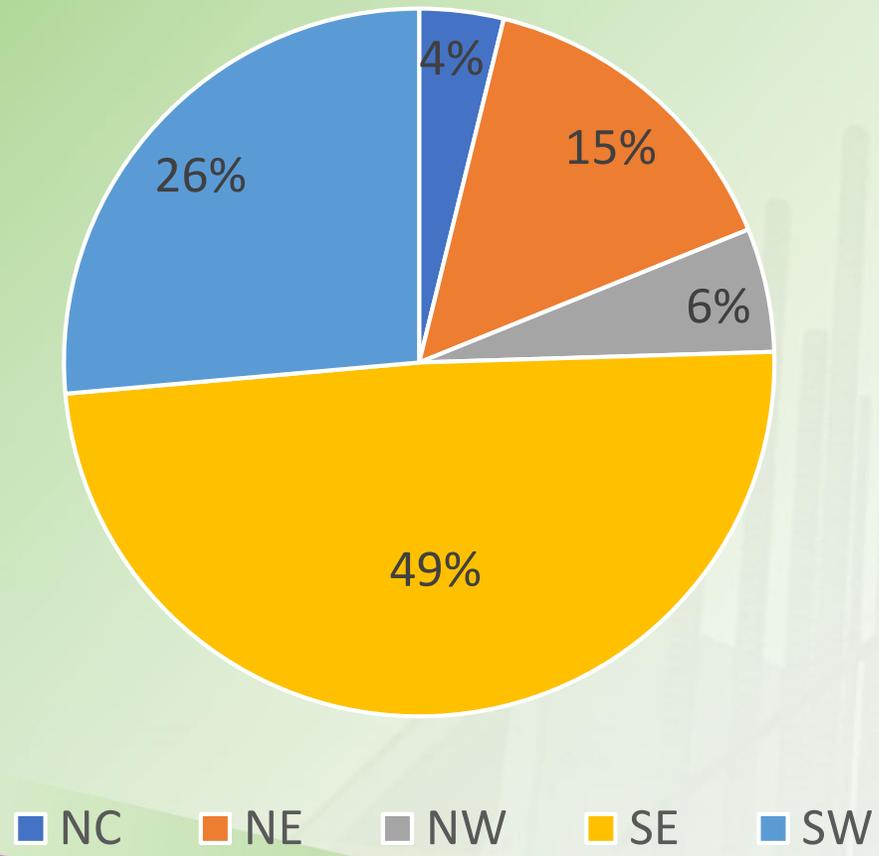


** 2019 are preliminary crash statistics **

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Total Work Zone Crashes by Region 2015 to 2019

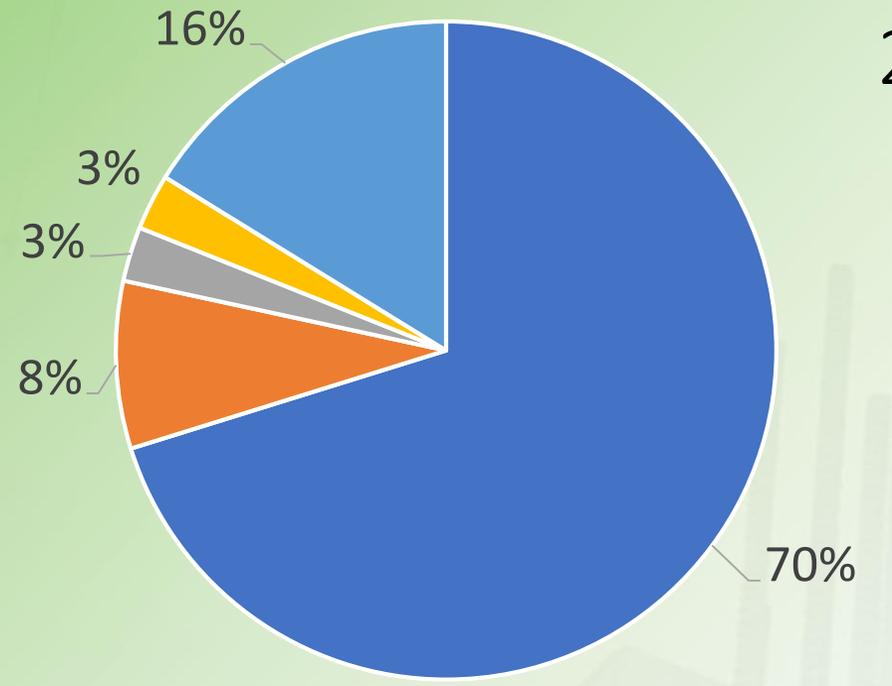


** 2019 are preliminary crash statistics **

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Work Zone Location 2017 to 2019



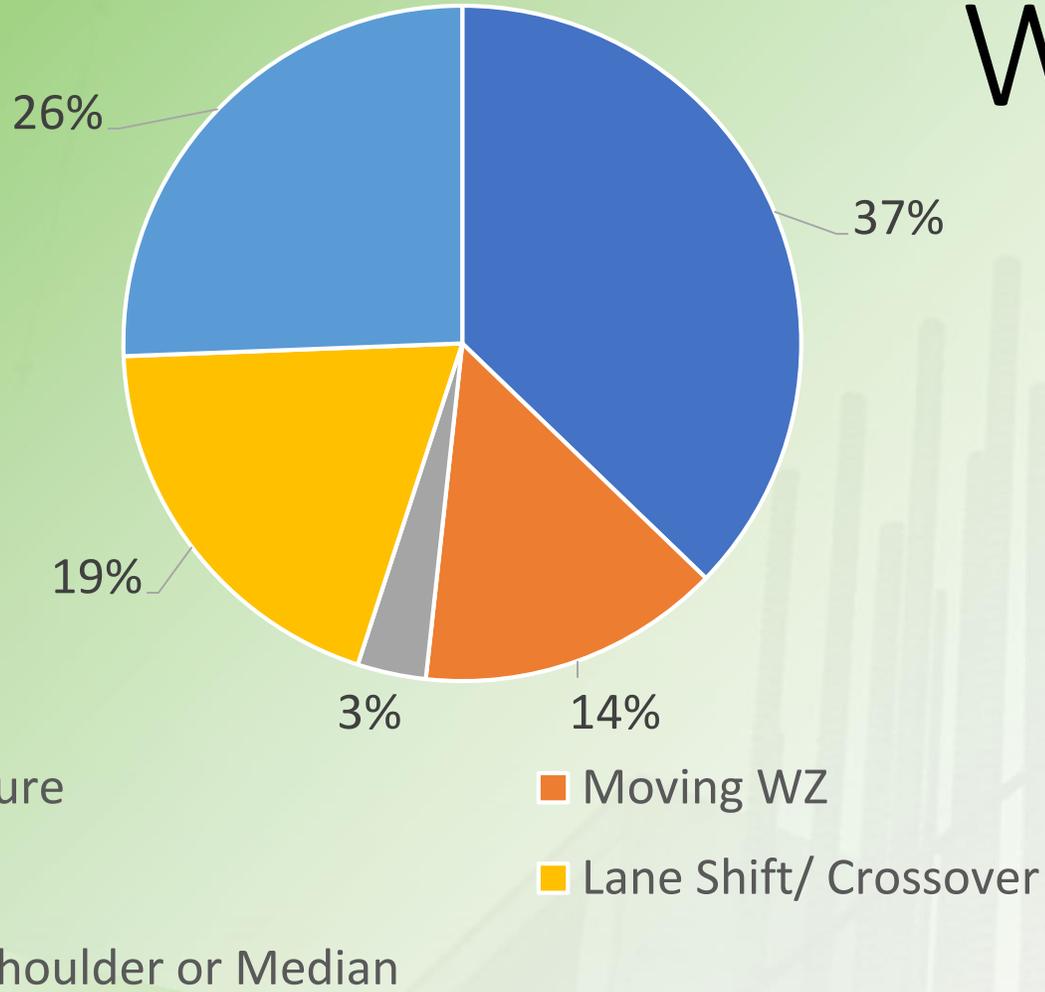
** 2019 are preliminary crash statistics **

- Activity Area
- Advanced Area
- Before WZ
- Termination Area
- Transition Area

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Work Zone Type 2017 to 2019



** 2019 are preliminary crash statistics **

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Flagger Updates

- Flagging Handbook
- Requirements
- Where to access WisDOT training and Handbook
- All flaggers need to be certified if flagging on Wisconsin State Highways and all LET Projects

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Flagging Handbook

- Handbook
 - Developed by WisDOT
 - Added in training requirements

2020

WISCONSIN FLAGGING HANDBOOK



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Flagging Handbook

- Addendum – published 12/3/2019
 - Received several comments from county train the trainer courses
 - Added items for clarification

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Flagging Handbook - Addendum

- Emergency Flagging and backing or spotting vehicles onto the roadway do not require a certified flagger, advanced warning signs, or temporary portable rumble strips.
- For short-duration work, anticipated to last 60 minutes or less, a certified flagger is required, advanced warning signs (Flagger Ahead and One Lane Road Ahead) are required. All other advanced warning signs (Road Work Ahead and End Road Work) are recommended. Temporary portable rumble strips are not required.
- For work anticipated to last longer than 60 minutes, a certified flagger, advanced warning signs and temporary portable rumble strips are required.
- Flaggers shall wear both vest and pants at all times. At a minimum, the vest shall be Class 2. Other apparel such as shirts and coats that exceed the Class 2 requirements may be worn instead of the vest. The pants at a minimum shall be Class E.



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- Where to buy Flagging Handbooks
 - Wisconsin.gov

Wisconsin.GOV Agency Directory Online Services

State of Wisconsin
Department of Transportation

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Work Zones

- Traffic Operations Programs
- Signing
- Traffic Management Center
- Traffic Analysis Modeling
- TOAMS
- Truck Parking Information Management System (TPIMS)
- Traffic Training
- Work Zones

- [FHWA work zone final rule](#)
- [TMP Guidelines \(FDM 11-50\)](#)
- [Wisconsin TMP System - Transportation Management Plans](#)
- Checklists:
 - [TMP Potential Elements \(from 11-50-5\)](#)
 - [Public Information and Outreach Plan \(from 11-50-10\)](#)
 - [Transportation Operations Plan \(from 11-50-10\)](#)
- [Incident Management Plan \(TEOnS 6-3-10\)](#)
- Wisconsin Flagging Handbook Training and Certification Materials**
 - [Presentation](#) | [Flagging Handbook](#) ([Addendum](#) | [online order form](#)) | [Agenda](#) | [Scenarios](#) ([layouts](#), [printouts](#)) | [Checklist](#) | [Quiz](#) | [Certificate](#) | [Sign-in sheet](#) | [Certification FAQs](#)
- [Wisconsin Lane Closure System \(WisLCS\)](#)

Contact Us Forms/Notices WisDOT Employees Translate Website

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Training Requirements

Understand the requirements for proper personal protective equipment.

Demonstrate the proper advance warning sign placement for flagging.

Demonstrate the proper placement of temporary portable rumble strips.

Demonstrate properly locating themselves in relation to traffic.

Demonstrate properly locating themselves in relation to obstructions (clear escape route).

Demonstrate proper single flagging technique.

Demonstrate proper two-flagger flagging technique.

Demonstrate proper flagging technique at an intersection.

Demonstrate proper flagging technique when pilot cars are used.

Demonstrate proper measures for warning others of non-compliant vehicles.

Demonstrate proper technique when flagging at night.

Required to have a minimum of 4 hours classroom and 8 hours of on the job training to demonstrate the proper flagging techniques shown in this document.

Required to take a refresher course every 2 years and demonstrate these skills.

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Training Options

- Power Point Trainings are provided on the Wisconsin website for your use in training staff if you choose
 - Agenda, scenarios, checklist, quiz, sign in sheet, FAQ
- Company Training
- Certificates – can be issued by your company, training company or WisDOT.



This acknowledges that

has successfully passed the
**Wisconsin Flagging Handbook
Training Certification Course**
and is eligible to perform flagging operations on Wisconsin
state-owned highways.

Instructor: _____ *Date:* _____

Expiration Date: _____
(2 years from training date)

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Certification

- Flaggers do not need to be certified through the WisDOT specific training
- Flaggers must carry their certification card at all times (or crew chief/foreman may carry it) and if asked for certification they need to show it or the project may be shut down until a certified flagger can arrive

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Training Questions

- If you have flagger questions you may send an email to the following email:

DOTDTSDFlaggerCertification@dot.wi.gov

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Smart Work Zones

- Work Zone Data Initiative
- Work Zone Data Exchange
- Work Zone Grants
- New Technologies

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Work Zone Data Initiative

- FHWA's Work Zone Data Initiative (WZDI), launched in 2017, is an effort to enable easier sharing and application of Work Zone Activity Data (WZAD) across the country.
- WZAD is the “what,” “where,” and “when” of work zone activities.
- Looking to develop a standard approach for collecting, organizing and sharing data.

Source: <https://collaboration.fhwa.dot.gov/wzmp/wzdi/Forms/AllItems.aspx>

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Work Zone Data Exchange (WZDx)

- The WZDx Specification enables infrastructure owners and operators (IOOs) to make harmonized work zone data available for third party use.
- The intent is to make travel on public roads safer and more efficient through access to data on work zone activity.
- Specifically, the project aims to get data on work zones in to vehicles to help automated driving systems (ADS) and human drivers navigate more safely.

Source: <https://collaboration.fhwa.dot.gov/wzmp/abouttheWZDx/Forms/EditForm.aspx>

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Work Zone Grants

- USDOT recently announced plans to fund Work Zone Data Exchange (WZDx) Demonstration Grants.
- The purpose of this research program is to increase the safety of the traveling public through the production of consistent public work zone data feeds across jurisdictions.
- Provide funding for public roadway operators to make unified work zone data feeds available for use by third parties and collaborate on the [WZDx specification](#) development.

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Smart Work Zone Technologies

- Queue Warning System (QWS)
 - Series of PCMS and sensors alerting traffic of slow/stopped traffic ahead
- Basic QWS (BQWS)
 - Series of trailer mounted fixed message signs with beacons and sensors alerting traffic of slow/stopped traffic ahead

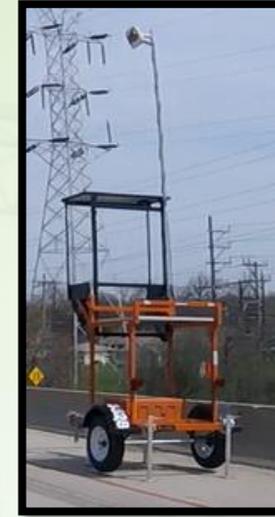


Source:

<https://www.streetsmartrental.com/smart-work-zones/queue-warning-system/>

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- Zipper Merge/Dynamic Late Merge System
 - PCMS and sensors alerting traffic to merge during congested time periods
- Travel Time through the work zone or along alternate routes



Sensors (Speed)

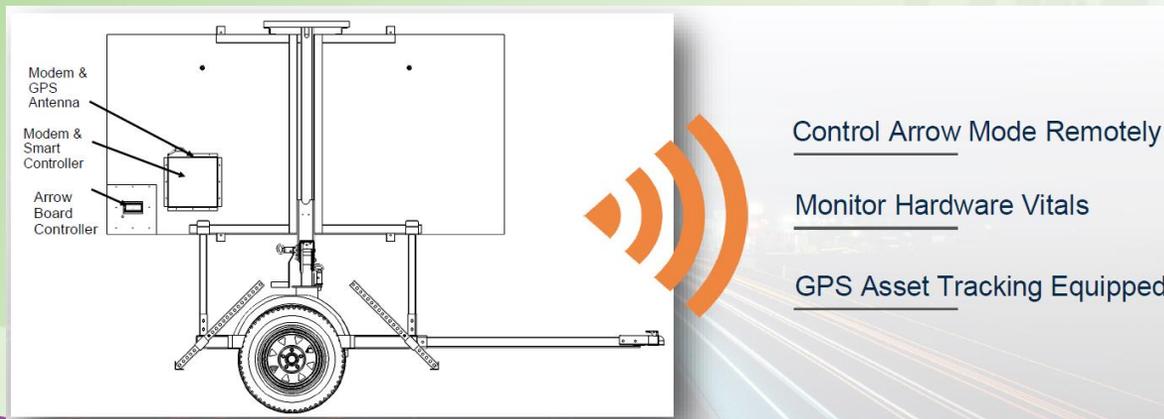


PCMS Boards

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Smart Work Zone Technologies

- Smart Arrow Board
- Smart Sensors
 - Mark the begin and end of a work zone



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Work Zone Awareness Week

- April 20-24, 2020
- Slogan: Safe Work Zones for All. Protect workers. Protect road users. We Can Do It!
- Sponsored by ATSSA
 - Location – TBD
 - Luncheon
 - Speakers

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