



Source: Massachusetts DOT



U.S. Department of Transportation
Federal Highway Administration

Federal Highway Administration (FHWA) Collaborating Efforts to Improve Commercial Motor Vehicle Safety in Work Zones

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CMV Definition

The Federal Highway Administration (FHWA), Federal Motor Carrier Safety Administration (FMCSA), and National Highway Traffic Safety Administration (NHTSA) agreed on using the term Commercial Motor Vehicles (CMV) when referring to large trucks and buses.

Commercial Motor Vehicles are defined as those with Gross Vehicle Weight (GVW) or Gross Combination Weight (GCW) of 10,001 or more pounds.



Source: Texas A&M Transportation Institute



Source: Texas A&M Transportation Institute



WORK ZONE DEFINITION

An area of roadway where construction, maintenance, or utility work is occurring.

National Roadway Safety Strategy



Source: USDOT/Getty

- Comprehensive initiative based on the Safe Systems Approach
- Work zone safety is a new activity area specifically identified within the Safer Roads element of the strategy:

“Advance strategies and practices for safe and reliable travel through work zones for all road users, including highway workers, through training and knowledge transfer to State and local agencies. This action includes leveraging funding opportunities outlined in BIL [Bipartisan Infrastructure Law], such as work zone safety grants, and continuing technology efforts such as the Work Zone Data Exchange (WZDx)”

(2023 Progress Report on the National Roadway Safety Strategy, February 2023)



Source: USDOT

Identification of National Work Zone Safety Objectives and Activities: Summary Report



Source: USDOT/Getty

STRATEGIC OBJECTIVE 3: REDUCE COMMERCIAL MOTOR VEHICLE INVOLVEMENT IN FATAL AND INJURY WORK ZONE CRASHES

- Potential Stakeholders
- Activities
- Performance Measures

Identification of National Work Zone Safety Objectives and Activities: Summary Report

Publication No. FHWA-HOP-22-059

March 2023



U.S. Department of Transportation
Federal Highway Administration

2021 National Work Zones Crashes*



Source: USDOT/Getty



874 fatal crashes and 956 fatalities



Truck-involved

291 fatal crashes and 321 fatalities

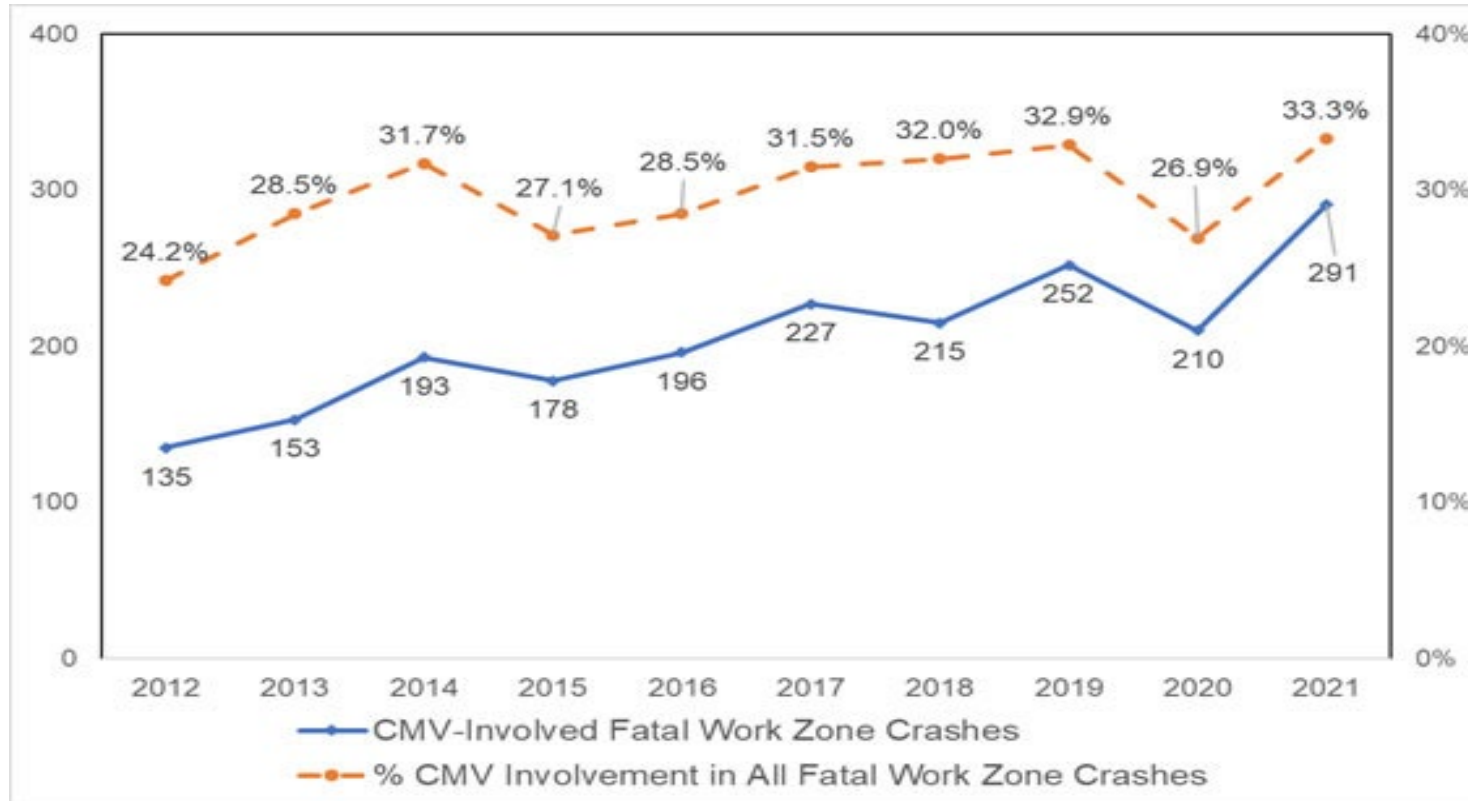


Bus-involved

3 fatal crashes and 4 fatalities

* Source: [National & State Traffic Data — Work Zone Safety Information Clearinghouse](#)

CMV-Involved Fatal Work Zone Crashes*



* 2010-2021. Source NHTSA Fatality Analysis Reporting System (FARS).

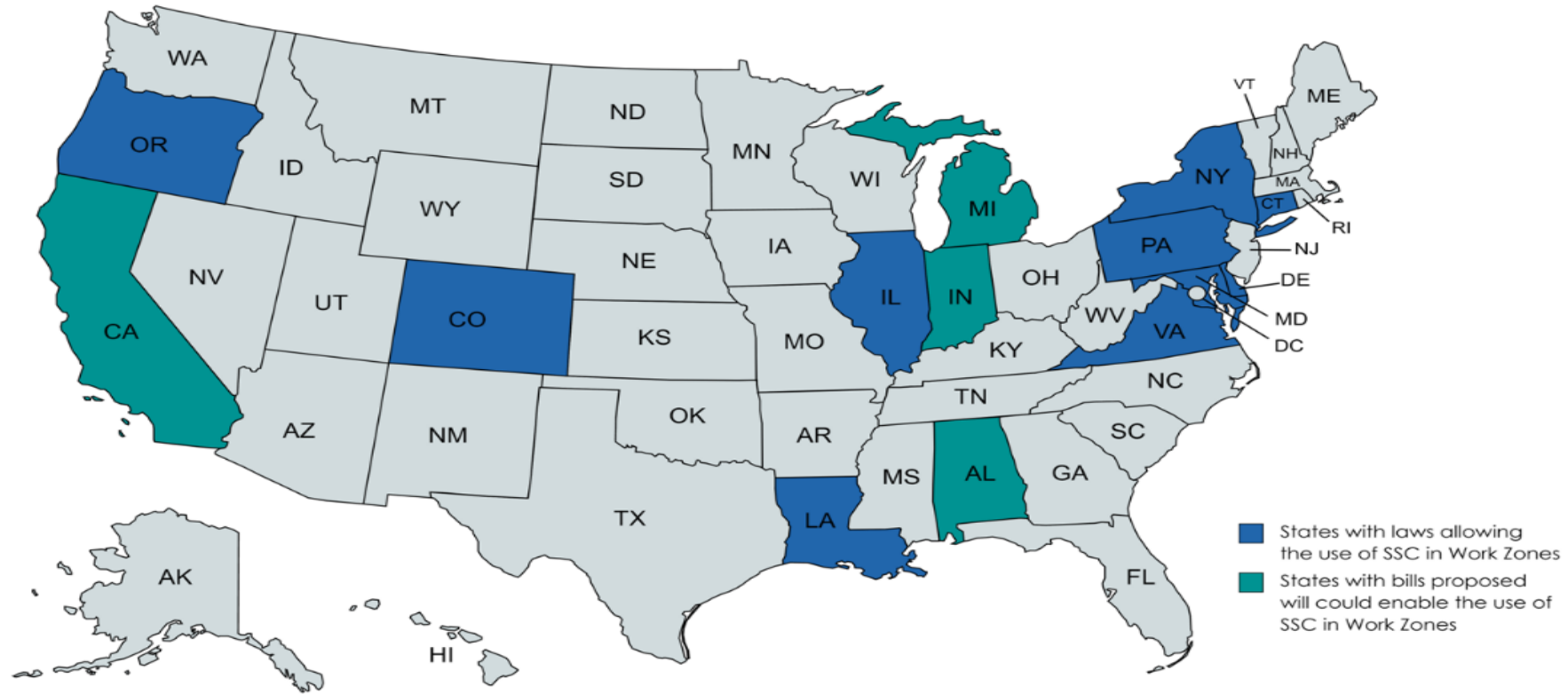
Work Zone Management Initiatives

- Work Zone Safety Strategic Planning
- Data-Driven Process Reviews
- Work Zone Data Initiative/Exchange
- Using Emerging Data Sources for Work Zone Management
- Commercial Motor Vehicle (CMV) Peer Exchanges and Outreach to Improve Work Zone Safety
- Advancing Practices for Localized Traffic Analysis and Work Zone Management During Voting Events
- Use and Effectiveness of Speed Safety Cameras in Work Zones
- Use and Effectiveness of Access and Egress Points in Work Zones
- Smart Work Zones



FHWA ALSO
PARTICIPATES IN MULTIPLE
POOLED-FUND RESEARCH
EFFORTS AND IN THE
NATIONAL COOPERATIVE
HIGHWAY RESEARCH
PROGRAM (NCHRP)

States with laws authorizing the use of speed safety cameras in work zones and those with proposed bills in the legislature

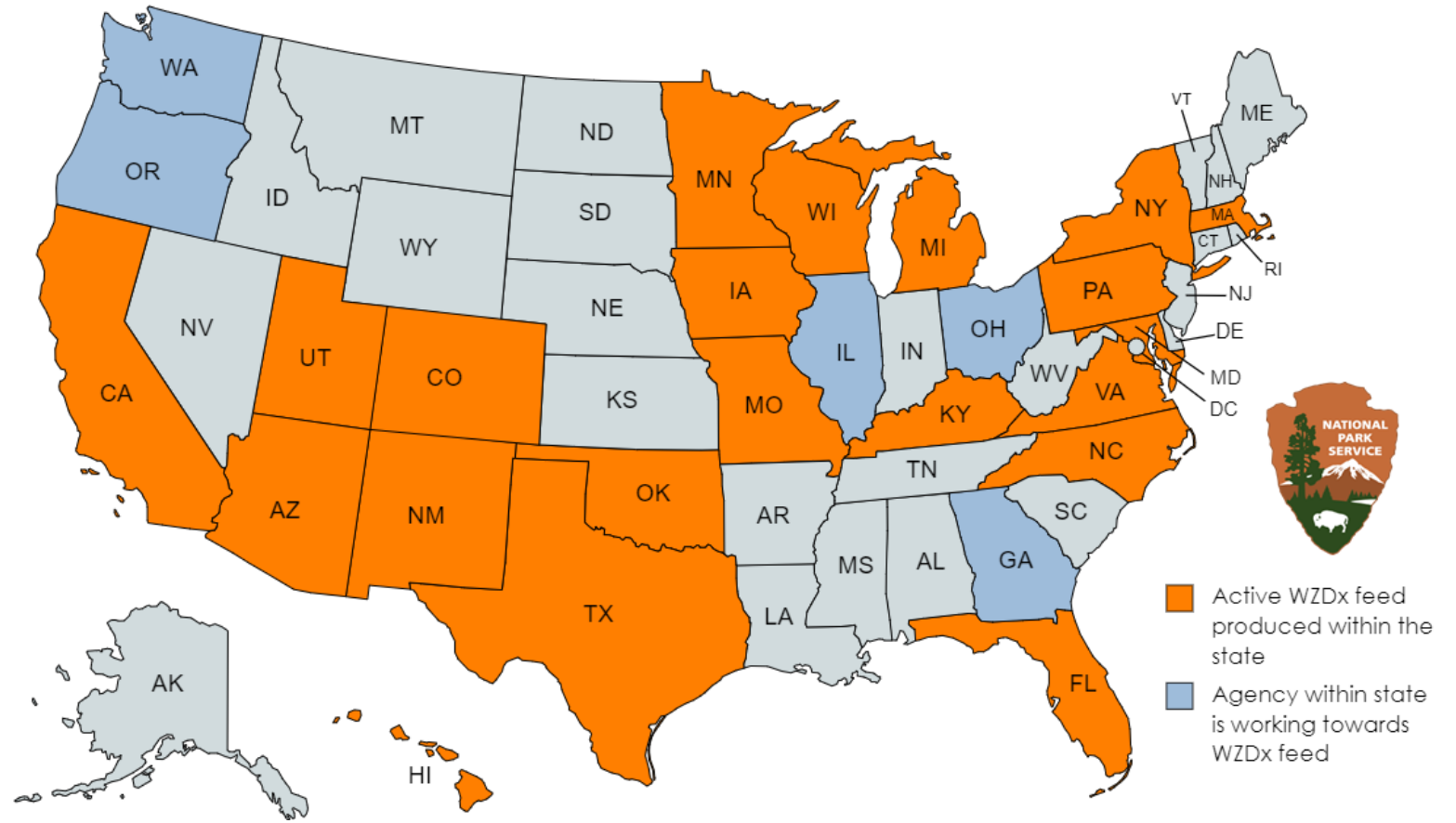


Source: FHWA

WZDx Deployment Progress

Work Zone Data Exchange (WZDx)

- Active feeds in 21 states + National Park Service (as of Sep 2023)
- WZDx v4.2 -> SDO via Connected Work Zones project
- Near-term focus = integrated corridor coverage



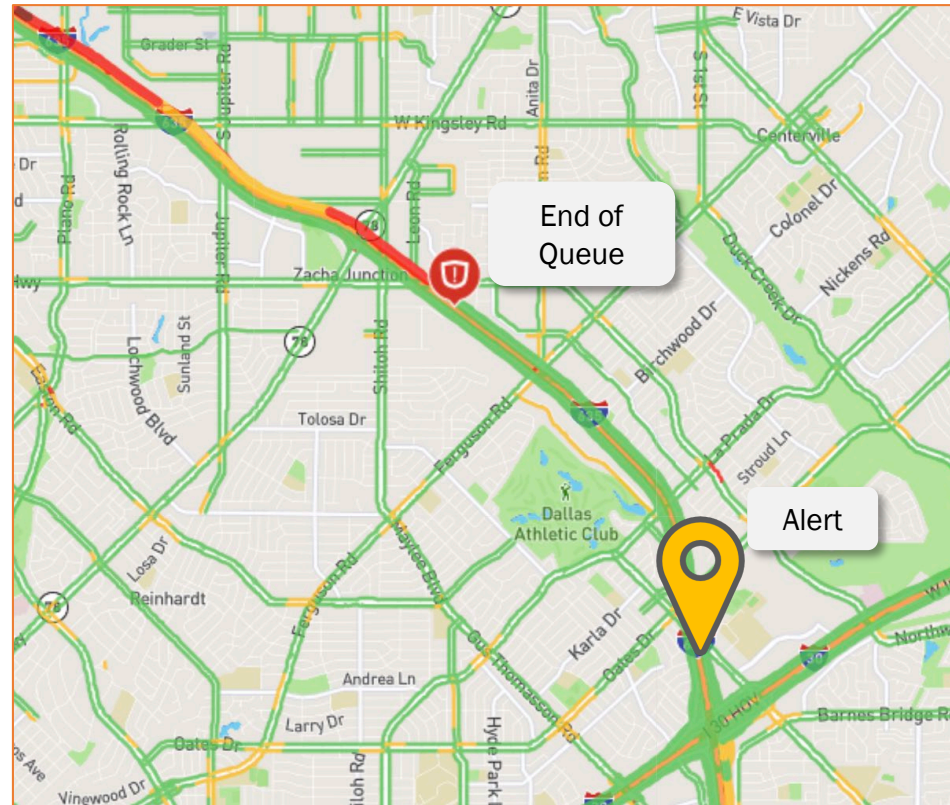
[Work Zone Data Exchange Feed Registry:](https://datahub.transportation.gov/Roadways-and-Bridges/Work-Zone-Data-Exchange-WZDx-Feed-Registry/69qe-yiui)

<https://datahub.transportation.gov/Roadways-and-Bridges/Work-Zone-Data-Exchange-WZDx-Feed-Registry/69qe-yiui>

NC DOT'S PILOT Traffic Alerts

Dangerous Slowdowns

- Significant drop in speed ahead vs current speed
- Alert will be issued if speed drops 35 mph +
- 2 miles ahead



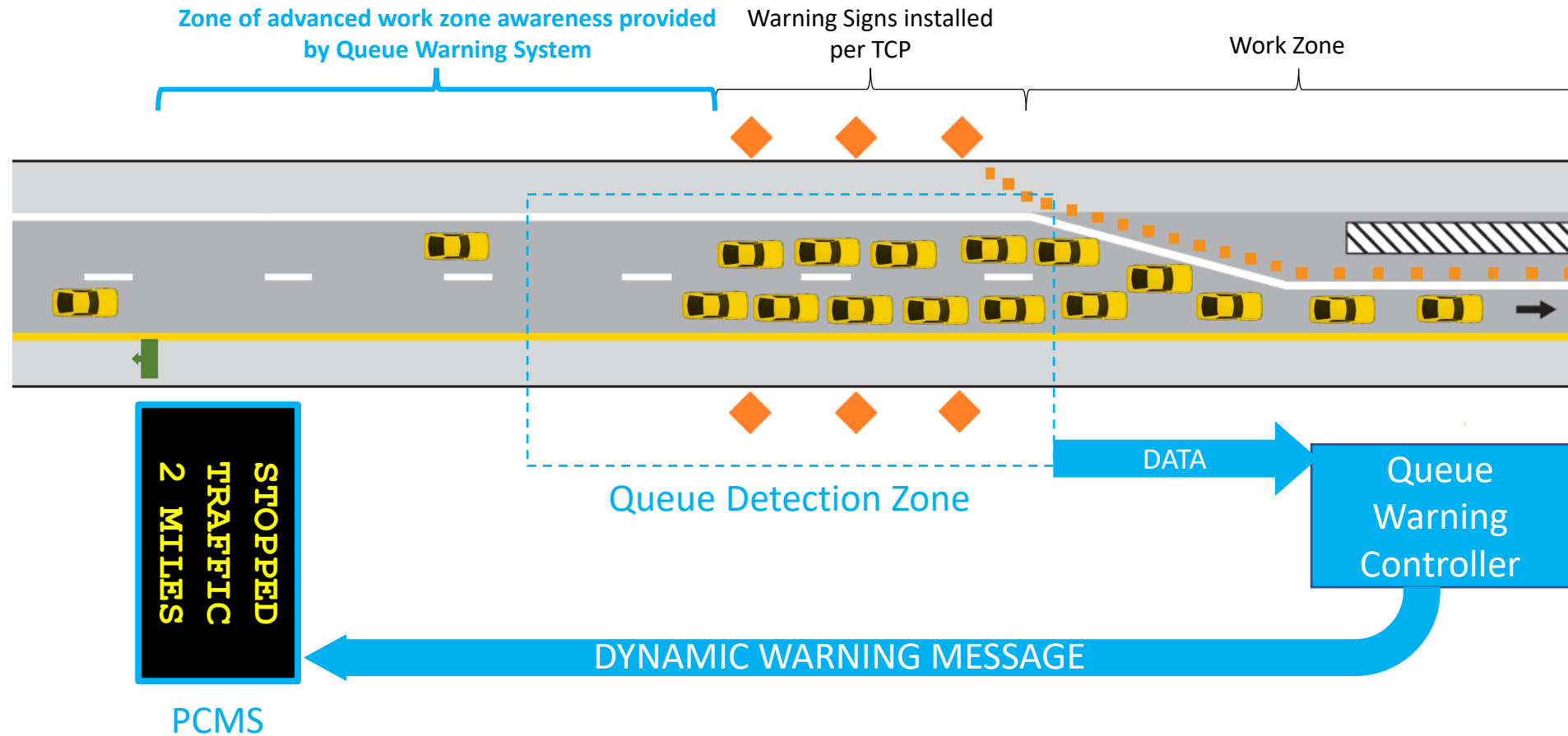
Source: NCDOT

Congestion

- Delay vs. Free flow
- Alert will be issued if 3 minutes or more of delay
- 3 miles ahead



Queue Warning System (QWS)



Source: FHWA

Education

- Incorporate CMV safety-related information into existing work zone safety materials
- Develop materials explaining the proper driving behavior in and around work zones
- Educate teen drivers about work zone safety and proper driving behaviors around CMVs
- Use FMCSA work zone safety shareable material



Source: FMCSA

Available Resources

- ❑ FHWA Work Zone Management Program:
 - ❑ [Work Zone - FHWA Office of Operations \(dot.gov\)](#)
 - ❑ [Commercial Motor Vehicle \(CMV\) Safety in Work Zones - FHWA Work Zone \(dot.gov\)](#)
 - ❑ [PROVIDING IN-CAB, TRAFFIC-RELATED WARNING MESSAGES \(dot.gov\)](#)
- ❑ National Work Zone Safety Information Clearinghouse:
 - ❑ <https://workzonesafety.org/>
 - ❑ Commercial Motor Vehicle Safety webpage:
 - ❑ [Commercial Motor Vehicle — Work Zone Safety Information Clearinghouse](#)
- ❑ FMCSA Our Roads Our Safety Campaign-Work Zones Safety Tips:
 - ❑ <https://www.fmcsa.dot.gov/ourroads/work-zones-safety-tips>
- ❑ FMCSA Work Zone Safety: Shareable Material:
 - ❑ <https://www.fmcsa.dot.gov/ourroads/work-zone-safety-shareable-material>

FHWA Work Zone Safety Grant Resources

Design and Operations of Work Zones Strategies to Improve Large Truck Safety Publication

- <https://www.workzonesafety.org/publication/design-and-operation-of-work-zone-strategies-to-improve-large-truck-safety/>

Improving Large Truck Safety in Work Zones Online Course

- https://artba.ispringmarket.com/content/79/info/Improving_Large_Truck_Safety_in_Work_Zones_-_BETA_Version?use_referrer=1

Separating Large Trucks From Non-Truck Traffic in Work Zones Fact Sheet and Online Course

- https://www.workzonesafety.org/files/documents/training/fhwa_wz_grant/artba_separate_large_trucks_factsheet-508.pdf
- https://artba.ispringmarket.com/content/235/info/Separating_Large_Trucks_from_Non-Truck_Traffic_in_Work_Zones?use_referrer=1

FHWA Work Zone Safety Grant Resources

Designing Work Space Access Points to Better Accommodate Large Trucks Fact Sheet and Online Course

- https://www.workzonesafety.org/files/documents/training/fhwa_wz_grant/artba_large_truck_work_space_access_points_factsheet-508.pdf
- https://artba.ispringmarket.com/content/247/info/Designing_Work_Space_Access_Points_to_Better_Accommodate_Large_Trucks?use_referrer=1

Guidelines on Work Zone Access and Egress

- https://www.workzonesafety.org/files/documents/training/courses_programs/rsa_program/RSP_Guidance_Documents_Download/RSP_Access_Egress_Download.pdf

FHWA Work Zone Safety Grant Resources

Use of Smart Work Zone Technology to Improve Work Space Access Point Safety fact sheet and Online Course

- https://www.workzonesafety.org/files/documents/training/fhwa_wz_grant/artba_use_swz_technology-508.pdf
- https://artba.ispringmarket.com/content/234/info/Using_Smart_Work_Zone_Technology_to_Improve_Work_Space_Access_Point_Safety

Innovative End-of-Queue Warning System Reduces Crashes up to 45%

- https://www.workzonesafety.org/files/documents/training/courses_programs/rsa_program/RSP_Guidance_Documents_Download/RSP_EndOfQueueWarning_Guidance_Download.pdf

FHWA Work Zone Safety Grant Resources

Safe Trucking Through Work Zones Brochure and Presentation

- <https://www.workzonesafety.org/publication/safe-trucking-through-work-zones/>
- https://www.workzonesafety.org/files/documents/training/webinar/safe_trucking_wz_presentation.pdf

Work Zone Designer Series: Oversize/Overweight Vehicle Accommodation in Work Zones

- https://www.workzonesafety.org/files/documents/training/fhwa_wz_grant/uw_wz_designer_series_OSOW_vehicles_wz-508.pdf



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Questions?

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