



Work zones are inevitable, and major projects have long and short-term closures that restrict or close lanes, ramps, shoulders, other roadways and access points. For emergency responders, the everchanging landscape of active construction projects can challenge emergency response mobility and safety.

The Federal Highway Administration (FHWA) has several publications that discuss the importance of integrating TIM in all aspects of highway safety and mobility. *“A critical aspect of planning for TIM in work zones is ensuring that emergency response procedures and practices remain valid through all phases of construction. Agencies should also plan to meet routinely to ensure that the important elements of the plan remain valid and up-to-date. On large construction projects, incident responders, transportation agencies, and construction personnel should meet routinely through the life the project to review actual responses to incidents that have occurred during the project and update response and communication plans as needed. Response plans often need to be updated and/or revised as conditions, lane closures, and access to the work zone changes. It is essential that incident responders be notified when new conditions might impact response times or access to the site.”*²

*“Coordinating work zone management and construction projects with TIM [Traffic Incident Management] and ICM [Integrated Corridor Management] partners provide a mechanism to ensure that parallel route options are available and that emergency vehicle mobility in the vicinity of a work zone is optimized. Transportation management plans (TMP) address work zone safety and mobility and are required by FHWA for any projects receiving Federal funding. Expanding the TMP to include TIM stakeholders and applying it to a broader range of projects can improve operations across the transportation network as a whole by keeping all parties better informed.”*³

A great example of a transportation management plan that addresses TIM is the one developed for the I-91 Charter Oak Bridge Project, CT DOT Project No. 0063-0703/0159-0191. The project work includes the relocation of I-91 northbound (NB) Exit 29 ramp to the Charter Oak Bridge, the widening of I-91 northbound and Route 5/15 northbound. This project also includes resurfacing of I-91 between the Elm Street overpass in Wethersfield and the new Exit 29 off-ramp in Hartford. The complexity of the work, and the numerous stages and lane closures required to complete construction will affect mobility and response tactics in the work zones. An important component included in the project TMP is the Transportation Operations Plan that provides strategies - Incident Management, Traffic Incident Occurrence and Response, and Continuity of Emergency Services. The project is also utilizing a smart work zone system to assist in detecting, verifying, responding to, and clearing incidents in work zones. The system is administered by the project construction personnel; and the highway operations center also can view information to better manage traffic in the incident area thus reducing the duration and impact to the motoring public in the work zone area.

² TRAFFIC INCIDENT MANAGEMENT IN CONSTRUCTION AND MAINTENANCE WORK ZONES <https://ops.fhwa.dot.gov/publications/fhwahop08056/30.htm>

³ INTEGRATED CORRIDOR MANAGEMENT AND TRAFFIC INCIDENT MANAGEMENT: A PRIMER <https://ops.fhwa.dot.gov/publications/fhwahop16035/index.htm#f1>



WINTER ON OUR DOORSTEP

It's New England and unless you plan on being in the southern states for the next few months, winter and all the wonderful weather that comes with it will be upon us. Snowy, slushy, icy, cold, wet and windy conditions will require adjustments to strategic, tactical and operational protocols.

All types of adverse weather impact roads, traffic, and operational decisions. However, winter can present a host of issues that all responders need to be prepared for. Impacts of severe winter weather, ice and sleet, snowstorms, severe winds, extreme cold can result in closed highways, low visibility, frozen equipment, life-safety issues for stranded motorists and responders.

There is not much discussion or TIM training when it comes to responding to incidents during winter weather. A good article by Carl J. Haddon found in Fire Apparatus Magazine discusses Winter Traffic Incident Management. *"During winter and bad weather traffic accident responses, the danger zone for EVERYONE is expanded dramatically. We've all seen the nightmare videos of vehicles sliding and smashing into other vehicles and those same vehicles whacking responders as they bounce around the highway like hockey pucks. As the danger zone needs to expand, so does the size of the safe zones."* Go to the following link for full article: <https://www.fireapparatusmagazine.com/2017/02/10/winter-traffic-incident-management/#gref>

On average, there are over 5,891,000 vehicle crashes each year. Approximately 21% of these crashes - nearly 1,235,000 - are weather-related. Weather-related crashes are defined as those crashes that occur in adverse weather (i.e., rain, sleet, snow, fog, severe crosswinds, or blowing snow/sand/debris) or on slick pavement (i.e., wet pavement, snowy/slushy pavement, or icy pavement). On average, nearly 5,000 people are killed and over 418,000 people are injured in weather-related crashes each year. (Source: Ten-year averages from 2007 to 2016 analyzed by Booz Allen Hamilton, based on NHTSA data).⁴

According to the Federal Highway Administration Office of Operations "Each year, 24 percent of weather-related vehicle crashes occur on snowy, slushy or icy pavement and 15 percent happen during snowfall or sleet. Over 1,300 people are killed and more than 116,800 people are injured in vehicle crashes on snowy, slushy or icy pavement annually."⁵



Sun 8 Jan 2017 - An image provided by the Connecticut state police shows the scene of a crash involving as many as 20 vehicles on Interstate 91 in Middletown, Connecticut Saturday. Photograph: AP

⁴ How Do Weather Events Impact Roads? FHWA Road Weather https://ops.fhwa.dot.gov/weather/q1_roadimpact.htm

⁵ Snow & Ice - FHWA Road Weather Management https://ops.fhwa.dot.gov/weather/weather_events

TRAFFIC INCIDENT MANAGEMENT:

QUICK CLEARANCE

FENDER BENDER?
If you're in a minor or non-injury crash and your vehicle is operable, move it out of travel lanes.

Move your vehicle to the side of the road and inspect it there – not in dangerous travel lanes.


Often, a primary crash leads to a traffic backup and increases the risk of a secondary crash, which can be more severe than the original collision.

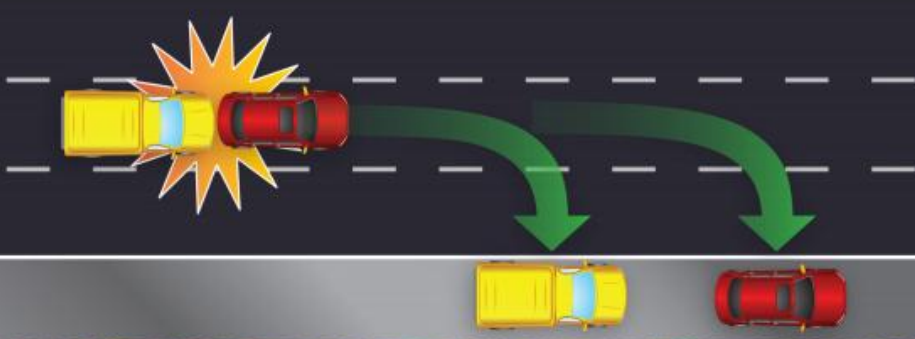
Vehicles involved in a non-injury crash that remain operable, according to Arizona law, must be removed from the roadway.

Emergency responders – police, fire, tow truck operators, etc. – need a safe place to work, too. On average, a tow truck operator is struck and killed every six days in the U.S.

Why move your vehicle out of travel lanes?

- Driver Safety
- Traveler Safety
- Responder Safety
- It's the Law!
A.R.S. 28.674





ADOT

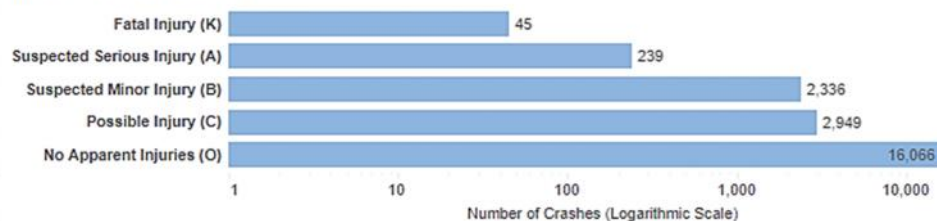
Courtesy of [Arizona Department of Transportation](https://azdot.gov/tags/traffic-incident-management) <https://azdot.gov/tags/traffic-incident-management>

2019 REPORTED FIGURES FOR THE HARTFORD URBANIZED AREA

Period from January 1, 2019 to September 24, 2019

CT Crash Data Repository Query Run November 12, 2019

Injury Status of Crashes



Crash Severity	Crashes	% of All Crashes
Fatal Injury (K)	45	0.21%
Suspected Serious Injury (A)	239	1.10%
Suspected Minor Injury (B)	2,336	10.80%
Possible Injury (C)	2,949	13.63%
No Apparent Injuries (O)	16,066	74.26%
Grand Total	21,635	100.00%

21,635 crashes, 45 fatal crashes, 239 serious injury (Type A) crashes