# ARIZONA MILEPOST



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LTAP Electronic Newsletter

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The AZ LTAP mission is to foster a safe, efficient and environmentally sound transportation system by improving skills and knowledge of the transportation provider through training, technical assistance and technology transfer. The AZ LTAP vision is to be recognized as a premier resource in developing and transferring innovative technologies, proven solutions and reliable servces to successfully meet the evolving educational and traning needs of the transportation community within Arizona. AZ LTAP will actualize its vision and accomplish its mission by paying personal attnetion to customer needs.

All courses on the AZ LTAP training schedule have been requested by our customers. You may request training to be delivered at your location by completing an on demand request form, please visit: www.azltap.org.



A systemic approach to safety involves widely implemented improvements based on high-risk roadway features correlated with specific severe crash types. The approach helps agencies broaden their traffic safety efforts at little extra cost. Find out how (read more)

### A Way to Manage Risk

Agencies design highway safety improvement projects to improve safety by minimizing or eliminating risk to roadway users. Rather than managing risk at certain locations, a systemic approach takes a broader view and evaluates risk across an entire roadway system. A system-based approach acknowledges crashes alone are not always sufficient to determine what countermeasures to implement, particularly on low volume local and rural roadways where crash densities are lower, and in many urban areas where there are conflicts between vehicles and vulnerable road users (pedestrians, bicyclists, and motorcyclists).

<u>Click here</u> for a for a list of potential risk factors a state or local agency might consider with the systemic safety approach.



## SSSBA PUBLISHES NEW RESEARCH REPORT IN INNOVATIVE PRESS-BRAKE-FORMED STEEL TUB GIRDER BRIDGE TECHNOLOGY SERIES

Testing and modeling results revealed for Cannelville Road Bridge in Muskingum County, Ohio

**WASHINGTON D.C., July 2, 2019** – The Short Span Steel Bridge Alliance (SSSBA) has added a new research report to its series on the development and experimental testing of an innovative bridge system. The new report, "Volume VI: Field Performance and Rating Evaluation of a Modular Press-Brake-Formed Steel Tub Girder With a Steel Sandwich Plate Deck," is available for free download at https://www.shortspansteelbridges.org/learning-center/research.

The new study presents results from the experimental testing and analytical modeling of the Cannelville Road Bridge currently in service in Muskingum County, Ohio. The structure is composed of two modular, tub girder and sandwich plate steel (SPS®) deck units that were constructed offsite and erected using accelerated bridge construction (ABC) methods. It is the first press-brake-formed steel tub girder bridge to be erected with a composite SPS® deck system.

"Test results from the Cannelville Road Bridge show that current AASHTO LRFD Specifications for analyzing shallow press-brakeformed tub girders are conservative, with field performance exceeding the calculated performance," said Rich Tavoletti, director of the Short Span Steel Bridge Alliance. "This is great news for bridge owners, engineers and designers who are facing increasing demand for rapid infrastructure replacement since these bridges are cost-effective, practical for ABC applications, can last over 100 years, and are compatible with various deck designs as modular units."

Tavoletti said that press-brake-formed steel tub girder bridges are ideal for replacing structures with spans up to 60 feet and that these bridges are currently being built or in service in Iowa, Ohio, Michigan, Texas and West Virginia.

The Cannelville Road Bridge research is Volume VI in the "Development and Experimental Testing of Press-Brake-Formed Steel Tub Girders for Short Span Bridge Applications" series which are all available for free download at https://www.shortspansteelbridges.org/ learning-center/research. The full series includes:

- Volume I "Development and Feasibility Assessment of Shallow Press-Brake-Formed Steel Tub Girders for Short Span Bridge Applications"
- Volume II "Experimental Evaluation of Non-Composite Shallow Press-Brake-Formed Steel Tub Girders"
- Volume III "Evaluation of Modular Press-Brake-Formed Tub Girders With UHPC Joints"
- Volume IV "Field Performance Assessment of Press-Brake-Formed Steel Tub Girder Superstructures"
- Volume V "Fatigue Performance of Uncoated and Galvanized Composite Press-Brake-Formed Tub Girders"
- Volume VI "Field Performance and Rating Evaluation of a Modular Press-BrakeFormed Steel Tub Girder With a Steel Sandwich Plate Deck"

The Short Span Steel Bridge Alliance provides essential information to bridge owners and designers on the unique benefits, innovative designs, cost competitiveness, and performance related to using steel in short span intstallations up to 140 feet in length. SSSBA partners comprise bridge and buried soil steel structure industry leaders. including manufacturers, fabricators and representatives of related associations and government organizations. For more news or information, visit <u>www.shortspansteelbridges.org</u>, or follow us on Twitter @ShortSpanSteel or on Facebook at htt's://www.facebook.com/ShortSpanSteel/.





#### SAFE TRANSPORTATION FOR EVERY PEDESTRIAN (STEP)

Cost-effective countermeasures with known safety benefits can help reduce pedestrian fatalities at uncontrolled crossing locations and un-signalized intersections.

Pedestrians account for over 17.5 percent of all fatalities in motor vehicle traffic crashes, and the majority of these deaths occur at uncontrolled crossing locations such as mid-block or un-signalized intersections. These are among the most common locations for pedestrian fatalities generally because of inadequate pedestrian crossing facilities and insufficient or inconvenient crossing opportunities, all of which create barriers to safe, convenient, and complete pedestrian networks.

Expecting pedestrians to travel significantly out of their way to cross a roadway to reach their destination is unrealistic and counterproductive to encouraging healthier transportation options. By focusing on uncontrolled locations, agencies can address a significant national safety problem and improve quality of life for pedestrians of all ages and abilities.

#### **Pedestrian Safety Countermeasures**

FHWA is promoting the following pedestrian safety countermeasures through the fourth round of Every Day Counts (EDC-4): •Road Diets can reduce vehicle speeds and the number of lanes pedestrians cross, and they can create space to add new pedestrian facilities.

•Pedestrian hybrid beacons (PHBs) are a beneficial intermediate option between RRFBs and a full pedestrian signal. They provide positive stop control in areas without the high pedestrian traffic volumes that typically warrant signal installation.

•Pedestrian refuge islands allow pedestrians a safe place to stop at the midpoint of the roadway before crossing the remaining distance. This is particularly helpful for older pedestrians or others with limited mobility.

•Raised crosswalks can reduce vehicle speeds.

•Crosswalk visibility enhancements, such as crosswalk lighting and enhanced signing and marking, help drivers detect pedestrians—particularly at night.

#### **Benefits**

Improved Safety. Countermeasures are available that offer proven solutions for reducing pedestrian fatalities at uncontrolled crossing locations.
Targeted Investment. By focusing on uncontrolled locations, agencies can address a significant national pedestrian safety problem.
Enhanced Quality of Life. Improving crossing opportunities boosts quality of life for pedestrians of all ages and abilities.

**State of the Practice** 

Road Diets, pedestrian refuge islands, and PHBs are all considered Proven Safety Countermeasures by the Federal Highway Administration (FHWA). The FHWA is also promoting Road Diets through EDC-3.

Communities benefitting from their use include Austin, Texas, where at least 39 PHBs are already installed and residents can request additional sites for them. In Michigan, the Department of Transportation (DOT) developed a Road Diets checklist to ensure smooth administrative procedures.



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Countermeasures such as crosswalk lighting, and raised crosswalks are being promoted through FHWA's PEDSAFE, a tool that helps transportation agencies diagnose and treat pedestrian safety issues. PEDSAFE includes numerous case studies that describe how communities across the country have implemented these safety improvements.

This EDC-4 effort will help more communities deploy these pedestrian safety improvements based on their specific roadway contexts and needs. It also aligns with U.S. DOT's Safer People, Safer Streets initiative and with other U.S. DOT efforts such as Ladders of Opportunity, which aims to provide people with safe, reliable and affordable connections to employment, education, healthcare and other essential services.

STEP is also an important action in FHWA's Strategic Agenda for Pedestrian and Bicycle Transportation, which is a collaborative framework for pedestrian and bicycle planning, design, and research efforts being developed over the next five years.

https://www.fhwa.dot.gov/innovation/everydaycounts/edc\_4/step.cfm



http://www.pullasidestayalive.org/

Avoid driving into or through a dust storm.

If you encounter a dust storm, immediately check traffic around your vehicle (front, back and to the side) and begin slowing down.

Do not wait until poor visibility makes it difficult to safely pull off the roadway -- do it as soon as possible. Completely exit the highway if you can.

Do not stop in a travel lane or in the emergency lane. Look for a safe place to pull completely off the paved portion of the roadway.

Turn off all vehicle lights, including your emergency flashers. You do not want other vehicles approaching from behind to use your lights as a guide, possibly crashing into your parked vehicle.

Set your emergency brake and take your foot off the brake.

Stay in the vehicle with your seatbelts buckled and wait for the storm to pass.

Drivers of high-profile vehicles should be especially aware of changing weather conditions and travel at reduced speeds.

•Will you know what to do? <u>English</u> | <u>Español</u> •All ADOT dust storm <u>video</u> PSAs

## Will you Know What to Do?



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#### Systemic In Practice

Click on the following noteworthy practices and case studies that illustrate these applications.

Illinois Kentucky Louisiana Minnesota Missouri Nebraska New York Ohio Thurston County, Washington



To access the full Noteworthy Practices Database click here.<u>https://</u> <u>safety.fhwa.dot.gov/</u> <u>systemic/fhwasa13019/</u>

#### The Systemic Safety Project Selection Tool

The Systemic Safety Project Selection Tool publication provides:

•A step-by-step process for conducting systemic safety planning;

•Considerations for determining a balance between spot and systemic safety improvements; and

•Analytical techniques for quantifying the benefits of a systemic safety program.

## Systemic Safety Project Selection Tool



https://safety.fhwa.dot.gov/systemic/fhwasa13019/sspst.pdf

The Systemic Safety Project Selection Tool builds upon current safety management practices for identifying roadway safety problems and implementing highway safety improvement projects. The tool expands a transportation agency's analytical techniques and models beyond current site-specific analysis to a systemic safety analysis approach by helping an agency perform a systemwide evaluation for roadway attributes that are common to locations with a crash history. This process enables the agency to proactively address highway safety concerns.

The systemic analysis outlined in this tool can be used across the board by state agencies, transportation planning organizations, and county and local government agencies to plan, implement, and evaluate systemic safety programs and projects that best meet their capabilities and needs. The tool provides a step-by-step process for conducting systemic safety analysis; considerations for determining a reasonable distribution between implementing site-specific safety improvements and systemic safety improvements; and a mechanism for quantifying the benefits of safety improvements implemented through a systemic approach.

A comprehensive safety management program, including both site analysis and systemic approaches, will reduce the occurrence of, and the potential for, fatalities and serious injuries on our nation's roadways. For additional information, please visit the <u>Systemic Approach to Safety: Using Risk to Drive Action website</u>.

#### 2019 Road Scholar Graduates

## Congratulations to the following Road Scholar participants for their acheivements this year in the Road Scholar Program. Thank you for your hard work!



<u>Level I</u> <u>Pinal County</u>

Brandon Yeoman Derek S. Ginter Dwight Adkinson Mario Rodriquez Michael R. Bonner Perry Duvall Terrance Lairmore

Level II Tucson Airport Authority

Celestino (Tino) Robles Ronald G. Sparks Jr. Ronald Gaines







ATSSA - Workzone Traffic Control Supervisor	8/13/2019	8/14/2019	Flagstaff
Basic Materials	8/13/2019	8/13/2019	Tucson
Certified Payroll Workshop	8/15/2019	8/15/2019	Phoenix
ATSSA - Workzone Traffic Control Technician	8/20/2019	8/20/2019	Phoenix
Two-Way Radio/Effective Communication	8/21/2019	8/21/2019	Queen Creek
Flagger Recertification	8/21/2019	8/21/2019	Florence
ATSSA - Workzone Traffic Control Supervisor	8/27/2019	8/28/2019	Tucson
Construction Maintenance Safety	8/28/2019	8/28/2019	Queen Creek
Asphalt Pavement Maintenance	8/28/2019	8/28/2019	Bullhead City
Maintenance Math	9/04/2019	9/04/2019	Queen Creek
Basic Materials	9/18/2019	9/18/2019	Queen Creek
ATSSA - Workzone Traffic Control Supervisor	9/24/2019	9/25/2019	Phoenix
Certified Payroll Workshop	10/17/2019	10/17/2019	Phoenix
Safety in the Workplace	11/6/2019	11/6/2019	Tucson
Certified Payroll Workshop	11/14/2019	11/14/2019	Phoenix
Flagger Recertification	12/5/2019	12/5/2019	Florence
Certified Payroll Workshop	12/19/2019	12/19/2019	Phoenix





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(email request to <u>ttraining@azdot.gov</u> Please include Name, Agency, Location, Email Address)

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