

MISSOURI LTAP

MISSOURI LOCAL TECHNICAL ASSISTANCE PROGRAM
— LOCATED AT MISSOURI S&T —

SPRING EDITION 2021

LPA BASIC TRAINING AND NATIONAL
WORK ZONE AWARENESS WEEK 4

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The Fine Print

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FROM THE *DIRECTOR*



Hello everyone!

As I write this letter, most of us are still experiencing very frigid temperatures and dealing with several inches of snow on the ground. However, I'm hoping by the time the newsletter goes to print, we will start to see a hint of spring. During the recent bad weather, many of you, after transitioning to remote work during the past year, likely avoided commuting to work on slippery roads. The ability to stay at home, avoiding dangerously cold temperatures and potentially hazardous travel conditions has been one positive outcome brought on by the pandemic. For the LTAP staff, we had multiple snow days, but that did not mean our office and campus shutdown. Instead, Missouri S&T has implemented remote operations and telework for the safety of all students, faculty, staff, and visitors.

We continue to transition to more virtual training in response to ongoing COVID restrictions. We are scheduling several "special topics" webinars. We are pleased to be partnering with MoDOT to again offer three sequential sessions on LPA Basics – Responsible Person in Charge. Each session will be hosted on Zoom from 11:00 a.m. – 1:00 p.m. on March 31, April 7 and 14. We will also be celebrating Work Zone Awareness Week April 26-30, 2021 by offering several presentations and trainings to the local agencies focused on work zone safety. On Monday, April 26, Ashley Buechter and Dan Smith with MoDOT will present a summary of the annual LPA work zones review process along with areas of improvement (1.5 hour). On Tuesday, April 27, we will present the MoDOT University course, Basics of Work Zone Traffic Control (1.5 hour). Buechter and Smith will present again Wednesday, April 28 on the personal protective equipment requirements for workers in work zones (1 hour). Then on Thursday, April 29, we will present another MoDOT University course, Flagger Training (1.5 hour). We are excited to offer this week of virtual training to the local agencies we serve. Additionally, we are in the final stages of planning three other upcoming webinars: pavement marking installation, an MUTCD overview for cities and counties, and signal timing and maintenance. We anticipate these webinars will be held in late March and early April. We will advertise each one, once the dates have been finalized.

Finally, we are excited to be partnering with MoDOT and FHWA on another free right-of-way training. This two-day class taught by the Federal Highway Administration's Resource Center will be held virtually and is being planned for August 2021. Titled Essential Requirements of the Uniform Act Workshop, the class introduces the federal-aid right-of-way process. The class also covers the fundamentals of complying with the Uniform Act, Federal Highway regulations, and other pertinent state laws, regulations, or requirements. We held an in-person class in Columbia in October 2019. Based on very positive feedback from participants, we are expecting another strong response from local agencies, consultants, and contractors. Watch for upcoming information as details are finalized.

My best,

A handwritten signature in black ink that reads "Heath A. Pickerill". The signature is fluid and cursive, with the first name being the most prominent.

Heath A. Pickerill, Ph.D.
Director, Missouri LTAP

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Participants must attend all 3 sessions and pass a test to be certified as a Person of Responsible Charge.



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The Safety Circuit Rider Program assists Local Public Agencies in reducing fatalities on locally owned systems by using data driven, proven countermeasures.



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COVID has provided us with an opportunity to see what some have seen for many years. Working from home may be a wonderful option for some. It can be economically beneficial to everyone. It can improve employee morale which can be contagious.



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For more than a decade, the Federal Highway Administration's Every Day Counts (EDC) program has promoted proven but underused innovations that enhance roadway safety, improve project delivery, and reduce traffic congestion.



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Crowdsourced data from multiple streams can be integrated and used in real time for improved operations.

FOLLOW US ON SOCIAL MEDIA!



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Missouri LTAP | @Missouri LTAP

The Local Technical Assistance Program (LTAP) and Tribal Technical Assistance Program (TTAP) are composed of a network of 58 Centers — one in every state, Puerto Rico and regional Centers serving tribal governments. The LTAP/TTAP Centers enable local counties, parishes, townships, cities and towns to improve their roads and bridges by supplying them with a variety of training programs, an information clearinghouse, new and existing technology updates, personalized technical assistance and newsletters. Through these core services, Centers provide access to training and information that may not have otherwise been accessible. Centers are able to provide local road departments with workforce development services, resources to enhance safety and security; solutions to environmental, congestion, capacity and other issues; technical publications; and training videos and materials.

Participants must attend all 3 sessions and pass a test to be certified as a Person of Responsible Charge. A link will be emailed to each attendee after Part III upon verification of attendance of all parts required to test.

WED MARCH 31ST 11:00 AM - 1:00 PM (CDT) PART I

WED APRIL 7TH 11:00 AM - 1:00 PM (CDT) PART II

WED APRIL 14TH 11:00 AM - 1:00 PM (CDT) PART III

To register visit:

mltrc.mst.edu/moltophome/

LPA BASIC TRAINING

PERSON OF RESPONSIBLE
CHARGE THREE PART SERIES

NATIONAL WORK ZONE AWARENESS WEEK

APRIL 26-30, 2021

DRIVE SAFE. WORK SAFE. SAVE LIVES.

Missouri LTAP will be hosting Work Zone Awareness Week Webinar Series. Please join us for these free sessions.

APRIL 21 – 2020 FHWA/MODOT WORK ZONE PROCESS REVIEW
11:00 AM – 12:30 PM

APRIL 27 – MAINTENANCE OF TRAFFIC FOR SUPERVISORS
11:00 AM – 12:30 PM

APRIL 28 – FLAGGING AND PERSONAL PROTECTIVE EQUIPMENT
11:00 AM – NOON

APRIL 29 – FLAGGER SAFETY
11:00 AM – 12:30 PM

For more information and to register see our [FLYER](#) or visit the Training Calendar at moltap.org.

For more information on the National Work Zone Awareness Week, visit nwzaw.org.

MISSOURI'S SAFETY CIRCUIT RIDER PROGRAM



MISSOURI'S SAFETY CIRCUIT RIDER PROGRAM HAS BEEN IN EXISTENCE FOR ONE YEAR. THE PROGRAM ASSISTS LOCAL AGENCIES IN REDUCING THE NUMBER OF FATALITIES AND CRASHES ON MISSOURI'S LOCAL AND RURAL ROADWAYS.

Over 50 % of roadway fatalities occur because of roadway departures, so strategically focusing on keeping vehicles on the roadways provides an effective way to reduce fatalities.

Last quarter, I shared two different methods to improve roadway safety, which included both systemic approaches and site analysis tools. This quarter, I want to introduce FHWA's Proven Countermeasures. The Federal Highway Administration (FHWA) and other entities have completed multiple studies and have many websites along with publications to assist agencies in improving roadway safety. The results of these studies and mitigation efforts have resulted in countermeasures proven to reduce fatalities as well as the severity and number of crashes. FHWA has various groupings for their countermeasures; some are focused on reducing roadway departures while others cover differing aspects. These countermeasures address the safety factors that can be identified during systemic and or site evaluations. One significant publication that governs all traffic control devices across the U.S. is the Manual on Uniform Traffic Control Devices (MUTCD) found at mutcd.fhwa.dot.gov/kno_2009r1r2.htm. Many of the countermeasures reference the MUTCD, which covers types of measures, needs, placement, materials, maintenance regulations, and guidance. Please contact Missouri's LTAP office to register for upcoming MUTCD webinars trainings.

Over the next few months, I'll be mentioning some of the low-cost countermeasures in greater detail. In this edition, I want to introduce a few that are proven to significantly improve roadway safety. One countermeasure, the installation of chevron warning signs is classified as enhanced delineation. The proper use of these warning signs has resulted in a 25% reduction in nighttime crashes and 16%

reduction in non-intersection fatal and injury crashes. Sign maintenance, another low-cost countermeasure governed by the MUTCD, highlights the importance of keeping signs in proper working order and visible with the proper retro-reflectivity. The MUTCD requires agencies to use an assessment or management method designed to maintain sign retroreflectivity at or above the minimum levels, outlined in Table 2A-3. For alternative methods see *Maintaining Traffic Sign Retroreflectivity* (FHWA-SA-07-020).

With the upcoming construction and maintenance season approaching, I would be remiss not to mention the increase in work zone crashes on Missouri's local roadway systems. While it is important to implement and maintain proper permanent signing, striping, and traffic controls on your systems, it is also important to address temporary situations such as construction or maintenance projects. The MUTCD governs both permanent and temporary devices. In Missouri, local agencies have an additional resource for work zone set-ups under MUTCD's parameters. Readily made temporary traffic control plans for typical applications can be accessed on MoDOT's website at [epg.modot.org/index.php/616.8_Typical_Applications_\(MUTCD_6H\)#616.8.1_Listing_of_Typical_Applications](http://epg.modot.org/index.php/616.8_Typical_Applications_(MUTCD_6H)#616.8.1_Listing_of_Typical_Applications).

To assist the local agencies with these countermeasures, Missouri's Safety Circuit Rider Program will be purchasing additional items for the Equipment Loan Program: a sign retroreflectivity testing kit, two ball banking systems (electronic and conventional) for use in determining the need for chevron signs, and advisory speed plaques. If you or your agency is interested in borrowing any of the equipment, obtaining assistance in analyzing your system for safety improvements, or identifying low-cost countermeasures, please contact me.

Gidget Koestner, P.E., Safety Circuit Rider at 573-246-0720 or GidgetK@candidengineering.com

Information on FHWA Proven Safety Countermeasures:
safety.fhwa.dot.gov/provencountermeasures
safety.fhwa.dot.gov/roadway_dept/countermeasures/horcurves/
safety.fhwa.dot.gov/provencountermeasures/pdfs/fhwasa17058.pdf



WORKING FROM HOME DURING THE COVID-19 PANDEMIC

*Paula M. Hart, P.E., LEED AP, Owner,
Hart Engineering, St. Louis, Missouri*

IN THE PAST, IT WAS TRADITIONALLY UNHEARD OF FOR ENGINEERS AND PUBLIC WORKS EMPLOYEES TO WORK FROM HOME. IT WAS BELIEVED THAT WORKING FROM HOME WAS NOT CONDUCIVE TO COLLECTIVE INPUT ON PROJECTS, TO FACILITATING GOOD COMMUNICATION, AND TO PRODUCTIVITY. WORKING FROM HOME WAS NOT A FEASIBLE OPTION FOR THE INDUSTRY.

Fast forward to March 2020, everyone that could possibly work from home was doing so, and the work did not stop. Projects progressed and were completed on schedule, teams collaborated, new forms of communication were discovered and utilized. The culture of engineering was changing/evolving.

Suddenly, people were now having to look at the culture of their work environment in a whole new light—an environment they may have never considered, certainly

an environment they were not prepared for, and an environment most were not sure was going to work for them or their employers. Working from home during a pandemic is not a typical situation. In what we consider a typical world, those who work from home have made extensive plans for their new offices. Their workspaces have been specifically designated and appropriated. Children are typically in school or daycare arrangements have been planned for and other family members are often out of the home. This is not a typical year.

As this new life becomes our new normal, hopefully working from home becomes more productive; certainly, more comfortable. The culture of working from home is evolving as we navigate our new work world. Even in this short period of time, we are beginning to see many benefits of working from home: shorter commutes, more casual dress codes, new communication skills, working more productively, flexible non-traditional hours, and cultivating new relationships. Employees working from home are feeling more job satisfaction and overall are

reporting that they are happier in general. A better work/life balance is achievable.

SOME PEOPLE FEEL ISOLATED IN THIS ENVIRONMENT, NOT BEING ABLE TO BE WITH THEIR COWORKERS ON A DAILY BASIS. FOR EXTROVERTED PEOPLE, THE ISOLATION OF WORKING ALONE AT HOME CAN BE VERY DIFFICULT. THERE IS LESS HANDS-ON TRAINING, LESS IN-PERSON MEETINGS, LESS IN-PERSON IDEA SHARING. FOR THOSE WORKING FROM HOME WHO MIGHT NEED MORE PERSONAL INTERACTIONS AND/OR FOR TRAINING PURPOSES, THERE ARE STRATEGIES THAT MAY HELP, SUCH AS SETTING UP APPROPRIATE MEETINGS INSIDE OR OUTSIDE OF THE OFFICE AS ALLOWED.

As mentioned above, the use of new forms of communication has increased. Now in winter 2021, most of us have been on more Zoom meetings than we can count (some of you may be on one right now). Some people want to do video calls for everything, when in the past, many productive meetings were accomplished over “voice-only” conference calls. Not all meetings should be video calls. Some meetings may be more productive as voice-only. This is a form of communication we are learning to use as we navigate our new offices. Video allows one to put a face to the caller, whereas voice-only allows the participants to join the meeting in any attire they choose, from more locations, and possibly the ability to multitask. There are also other apps and technologies available to aid in communication that did not exist years ago.

It is exciting, this new adventure of working from home. There is now a new acceptance of those wishing to work from home. This was not an option for most people in the past. So many felt this option was an impossibility. Being forced to change is never comfortable, but this change is certainly changing our views of the workplace. There will always be those who will never like the working from home concept, there may even be those who believe it is less productive, but ideology is changing and many engineering companies, large and small, are finding success with allowing their employees to work

from home. Many companies are considering allowing their employees to work from home even after the “stay at home” orders are lifted. Employers are recognizing the benefit of satisfied, productive employees and increases in company profits.


In order to be competitive in the hiring market, working from home flexibility really needs to be an option for many. It is a given that not every position can work from home. Those that need to be in the field still need to be in the field, but perhaps after this we can all see that some office positions can be successfully executed remotely. Perhaps after this we can see how appealing the flexibility of working remotely may be to those exploring new job opportunities.

One concern that has been voiced is that employers cannot monitor their employees’ time. My response to this concern is measurable productivity. Is there a quantifiable amount of a task that needs to be completed in a given amount of time? Can a log of their productive time be utilized? Are deadlines being met? The bottom line comes down to trust, to knowing one’s employees, to knowing what the job they are doing entails. Good employees are going to be good whether they work from home or in an office. Most employees work extra hard and even longer hours to prove that they are productive and should be able to continue working from home.

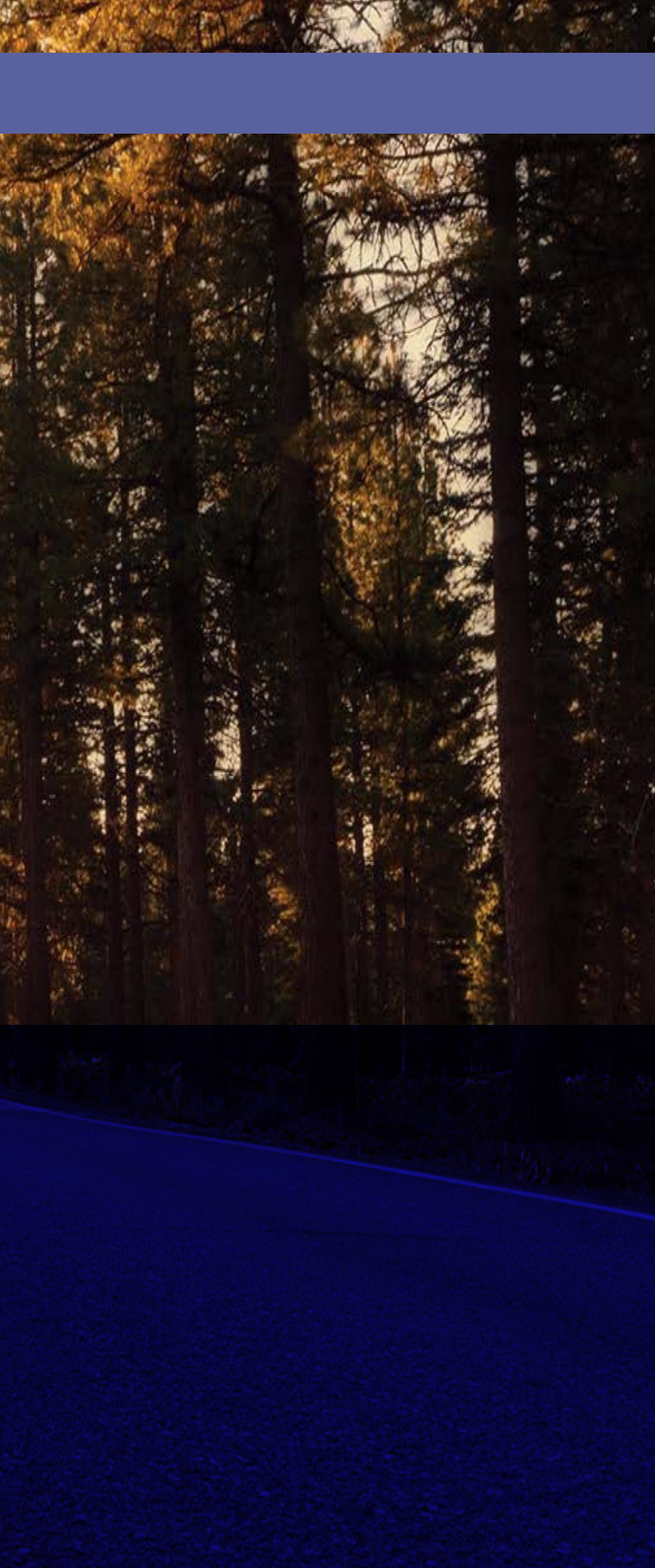
COVID HAS PROVIDED US WITH AN OPPORTUNITY TO SEE WHAT SOME HAVE SEEN FOR MANY YEARS. WORKING FROM HOME MAY BE A WONDERFUL OPTION FOR SOME. IT CAN BE ECONOMICALLY BENEFICIAL TO EVERYONE. IT CAN IMPROVE EMPLOYEE MORALE WHICH CAN BE CONTAGIOUS. COMMUNICATION IS ALWAYS IMPORTANT AND WE ARE LEARNING NEW WAYS EVERY DAY ON HOW TO STAY INFORMED AND CONNECTED.

Paula Hart can be reached at (314) 803-0528 or paulahart@hartengr.com.

apwa.partica.online/reporter/january-2021/inside-apwa/working-from-home-during-the-covid-19-pandemic



**EDC LEGACY: A
NETWORK OF
SOLUTIONS TO
MAKE ROADS SAFER**



For more than a decade, the Federal Highway Administration's Every Day Counts (EDC) program has promoted proven but underused innovations that enhance roadway safety, improve project delivery, and reduce traffic congestion.

Across the country, highway agencies attest to the value of adopting these new technologies and processes, along with a cultural change in how they deploy innovation. In 2021, as the transportation community participates in EDC round six, Innovator is featuring articles that reflect on what the program has accomplished.

Safety is the top priority of the U.S. Department of Transportation and highway agencies throughout the country. From the EDC program's early years, FHWA has promoted a portfolio of tools and resources to reduce fatalities and serious injuries across the transportation system.

As a result of EDC, the use of informed decision making through data-driven safety analysis (DDSA) is now widespread. EDC also expanded deployment of safety countermeasures such as the SafetyEdgeSM, high-friction surface treatments (HFST), road diets, and innovative intersections.

USING DATA FOR BETTER DECISIONS

The EDC focus on DDSA encouraged transportation agencies to adopt the use of advanced data analysis approaches to more accurately predict the safety impacts of projects. While traditional analysis relies on subjective or limited quantitative measures of safety performance, DDSA applies modern software tools and methods to analyze crash, roadway, and traffic volume data. These tools quantify the expected safety impact of each decision in the project development process so agencies can make more informed choices and optimize investments.

Through EDC, FHWA's marketing and outreach approaches—including webinars, videos, infographics, how-to guides, and a DDSA toolbox—expanded the reach of DDSA to many audiences.

In addition to offering technical assistance and training to aid State agencies in incorporating DDSA into processes and policies, the EDC team helped local agencies gain proficiency with DDSA technology and create local road safety plans.

"EDC provided a platform to effectively communicate about DDSA," said Jerry Roche, FHWA safety engineer and an EDC DDSA team leader. "Unlike other safety countermeasures that are widely known, intuitive, and

can be easily described and illustrated, DDSA was a fairly new approach that was hard to describe, difficult to illustrate, and, at first, counterintuitive.”

EDC supplied a national forum to tell transportation professionals and elected officials the story of DDSA—what it is, why it is important, and how it maximizes transportation investments to save lives and prevent injuries. EDC shared best practices and case studies on how DDSA has been successfully implemented in project development and safety management decision making.

STOCKING THE SAFETY TOOLBOX

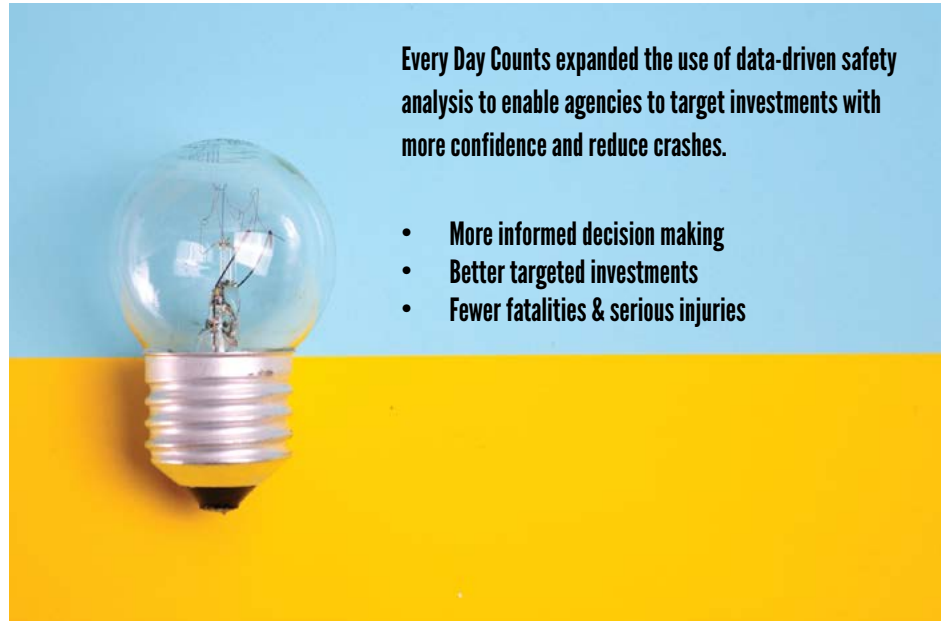
In addition to expanding DDSA use, EDC broadened the variety of safety tools in agency toolboxes and how they are used. The tools include intersection and interchange designs that accommodate traffic volumes efficiently while reducing conflict points to allow for safer travel. These alternatives to traditional designs include modern roundabouts, diverging diamond interchanges, and intersections with displaced left-turns or variations on U-turns.

By promoting the benefits of innovative intersections, EDC accelerated adoption of Intersection Control Evaluation (ICE) policies and programs, which use a data-driven approach to screen alternatives and identify an optimal geometric and control solution for an intersection. “In EDC, we focused on specific intersection types, not ICE policies. However, we teed up ICE for post-EDC efforts, knowing this would be the next step,” said Jeffrey Shaw, FHWA intersections program manager.

EDC also raised the profile of HFST, a cost-effective countermeasure to improve pavement friction and help motorists keep better control in dry and wet driving conditions.

After getting its start in Europe, HFST is now widely used in States to reduce crashes at locations with high risk for crashes, such as curves, ramps, and intersections.

An EDC-promoted countermeasure that has become part of the way agencies do business is the SafetyEdge, a simple solution for mitigating pavement edge-related crashes. A technique that involves minimal time and cost to implement, the SafetyEdge is now used routinely on paving and resurfacing projects in most States.



Every Day Counts expanded the use of data-driven safety analysis to enable agencies to target investments with more confidence and reduce crashes.

- **More informed decision making**
- **Better targeted investments**
- **Fewer fatalities & serious injuries**

EDC also encouraged State and local agencies to install road diets as a safety-focused alternative for mixed-used streets that offers high-value improvements essentially for the cost of re-striping pavement lanes. By reconfiguring the roadway cross-section, road diets help safely accommodate all users, increase mobility and access, and reduce crashes.

BUILDING ON SUCCESS

EDC builds on past successes by incorporating innovations introduced in earlier rounds into later rounds. Broadening the use of safety countermeasures and tools to more agencies, including local, and bringing new stakeholders up to speed on innovations as transportation staffs turn over are critical to reducing fatalities and serious injuries. As part of their focus on reducing rural roadway departures, agencies are combining newer tools—including systemic analysis to identify where the greatest risk for serious crashes is likely to be—with countermeasures such as HFST and the SafetyEdge to expand their use and prevent future crashes. Agencies are applying solutions such as road diets to increase pedestrian safety and reduce fatalities at uncontrolled and signalized crossing locations.

Leveraging best practices from past EDC safety initiatives in later rounds has encouraged a culture of change in the transportation community and provided the momentum for agencies to move forward on proven innovations that save lives.

fhwa.dot.gov/innovation/innovator/issue82/page_05.html



MISSOURI REACHES MAJOR INFRASTRUCTURE MILESTONE

Completes 100th Bridge in 'Focus on Bridges' Program

IN JUST OVER ONE YEAR, 100 OF THE STATE'S POOREST BRIDGES HAVE BEEN REPLACED OR REHABILITATED THROUGH GOVERNOR MIKE PARSON'S "FOCUS ON BRIDGES" PROGRAM.

Today, the program's 100th bridge opened in Livingston County on Route 190 over the Thompson River. This is the 21st bridge completed in the Missouri Department of Transportation's (MoDOT) Northwest District. The program's first bridge opened on December 20, 2019, in Iron County in MoDOT's Southeast District where 23 bridges have now been completed.

"It's hard to believe it's been a year since we launched the Focus on Bridges program. This was a major priority for our administration, and we are proud of MoDOT for continuing to move these critical projects forward during one of the most challenging times for our state," Governor Parson said. "This is an exciting milestone for infrastructure in Missouri, and we look forward to the next 100 bridges."

The Focus on Bridges program was launched by a \$50 million appropriation from general revenue by the Missouri General Assembly in July 2019. Additionally, MoDOT received an \$81.2 million INFRA Grant from the U.S.

Department of Transportation, triggering another \$301 million in bonding revenue for the program that was also approved by the legislature during the 2019 legislative session. In all, the program will repair or replace 250 of the state's poorest bridges.

The Route 190 project completed today replaced the deck on the bridge that was built in 1964 in order to provide a smoother driving surface. The project also brought bridge barriers and guardrail up to current standards. Comanche Construction of Kansas City was the contractor. Work began in March 2020 with staged construction so that half of the bridge was replaced at a time to leave one lane open to traffic. The bridge carries more than 1,100 vehicles per day.

"IN JUST OVER A YEAR, BRIDGE PROJECTS HAVE BEEN COMPLETED IN EVERY REGION OF THE STATE," MODOT ASSISTANT CHIEF ENGINEER ERIC SCHROETER SAID. "CONTRACTS HAVE BEEN AWARDED SO FAR TO 27 MISSOURI CONTRACTORS WHO ARE PERFORMING THE WORK. TO DATE, WE HAVE PAID \$91 MILLION ON FOCUS ON BRIDGES PROJECTS."

modot.org/node/21653

CROWDSOURCING FOR ADVANCING OPERATIONS

Crowdsourced data from multiple streams can be integrated and used in real time for improved operations.

State and local transportation systems management and operations (TSMO) programs strive to optimize the use of existing roadway facilities through traveler information, incident management, road weather management, arterial management, and other strategies targeting the causes of congestion. TSMO programs require real-time, high-quality, and wide-ranging roadway information. However, gaps in geographic coverage, lags in information timeliness, and life-cycle costs for field equipment can limit agencies' ability to operate the system proactively.

Public agencies at all levels are increasing both their situational awareness and the quality and quantity of operations data using crowdsourcing, which enables staff to apply proactive strategies cost effectively and make better decisions that lead to safer and more reliable travel while protecting privacy and security of individual user data.

Real-Time, Low-Cost, Valuable Data

Three common sources of crowdsourced data are social media platforms, third-party data providers, and specially

developed mobile apps. These data can be passively or actively transmitted and may be quantitative or qualitative in nature. Included is information related to speed, travel time, incident type, travel behavior, public sentiment, vehicular operation, and more. Some data are free with little to no cost to process, while other data can be purchased at a more effective cost point than traditional traffic monitoring equipment (e.g., roadway sensors and cameras).

Because crowdsourced data are obtained whenever and wherever people travel, agencies can capture in real time what happens between sensors, in rural regions, along arterials, and beyond jurisdictional boundaries. Crowdsourced data can often be accessed by traffic management centers (TMC) with minimal or no time lags and is not subject to local sensor or system outages. Complementing crowdsourced data with data integration tools enables TMC operators to focus more quickly on proactively managing emerging events, rather than reacting to them after congestion forms.

Benefits

Improved Operations. Better traveler information and more proactive and effective operations strategies can lead to reduced traffic congestion.

Increased Safety and Reliability. Crowdsourced data

leads to faster and more accurate responses to traffic incidents and other congestion-causing events, reducing the likelihood of secondary crashes.

Cost Savings. Crowdsourcing allows agencies to use their existing intelligent transportation systems infrastructure more effectively and could reduce the need for installing and maintaining additional roadway sensors.

State of the Practice

Most States' current crowdsourcing efforts are focused on obtaining data from a specific source and applying it to a single application area, such as traffic incident management or traveler information. This can be transformed into a system that gathers multiple streams of real-time data, integrates it, and uses it in multiple application areas for improved operations, as in the following examples:

- The Indiana Department of Transportation uses third-party probe data to actively manage traffic on major highways and corridors of interest. The agency worked with Purdue University to create Traffic Ticker and other dashboard tools that improve real-time operational decision-making and support training and after-action reviews.
- The Kentucky Transportation Cabinet integrates data from multiple sources, including third-party data providers, a mobile app, social media, and crowdsourced weather data, to improve operations and maintenance. Its Big Data System sends system-generated alerts to inform TMC operators of incidents and events earlier, allowing them to better plan their response.
- In Illinois, the Lake County Department of Transportation uses real-time tools and dashboards to integrate crowdsourced data with automated traffic signal performance measure (ATSPM) data to efficiently adapt traffic management systems to transportation system disruptions.

fhwa.dot.gov/innovation/everydaycounts/edc_6/crowdsourcing.cfm

Missouri's use of Real-Time Digital Alerts

What is a real-time digital alert and what are the benefits?

- This technology enables vehicles to send real-time digital alerts to motorists to supplement lights on the respective MoDOT vehicles.
- The most well-known tool to receive these alerts is the WAZE navigation app; however, other third-party vendors may be added in the future.
- When the lights are active on a MoDOT vehicle, a real-time digital alert and safety message is automatically sent to drivers with the navigation app.
- Depending on roadway geometrics and the area, this real-time digital alert may provide more advance warning to the motorist versus the traditional vehicle warning lights.
- In addition to the alerts being sent to the motorists, information is being sent to our Traffic Management Centers (TMCs).
- This technology also increases visible detection of vehicles in operation or emergency mode for the operations in the TMCs.

MoDOT has piloted this technology in Kansas City District (HAAS Alert) and St. Louis District (Makeway Safety) on specific fleet types in 2019. It has won two awards:

- MoDOT's 2019/2020 Innovation Challenge – Director's Safety Award
- 2020 ITS Heartland – Best ITS Product Award

MoDOT is currently expanding this technology, specifically the HAAS Alert to more fleets. This expansion includes all remaining emergency response trucks statewide, all trucks designated primarily for TMA purposes/mobile operations (each shed will have at least one truck with the technology), and some signal bucket trucks and aerial platform trucks.

After the expansion, MoDOT will have over 500 fleet vehicles with this technology, including HAAS Alert and Makeway Safety. The completion goal for the expansion installation is before the 2021 construction/maintenance season.

The quality of the experience for the customer is greatly improved by providing the customer more detail faster, which allows them more reaction time. The overall operations become safer not only for the traveling public but for MoDOT workers.

MISSOURI CENTER FOR TRANSPORTATION INNOVATION (MCTI) OPENS ITS DOOR TO SERVE MISSOURI'S TRANSPORTATION NEEDS



THE MISSOURI CENTER FOR TRANSPORTATION INNOVATION (MCTI), WHICH WAS FORMED A LITTLE OVER A YEAR AGO, IS THE NEW PREMIER TRANSPORTATION CENTER IN THE STATE OF MISSOURI.

It is a collaboration between the four University of Missouri System campuses and the Missouri Department of Transportation in cooperation with the Federal Highway Administration (FHWA). The UM System institutions include Missouri S&T (the system's STEM focused campus), the University of Missouri-Columbia (Mizzou), the University of Missouri-Kansas City and the University of Missouri-St. Louis. By collectively bringing together the expertise from all four campuses in the University of Missouri System, the Center is poised to address a wide variety of transportation challenges through Propelling People, Connecting their Communities, and Energizing their Economies.

MCTI's vision is to establish Missouri as a showcase and a clearinghouse for safe, accessible, sustainable and resilient transportation.

THE SIX PRIMARY GOALS OF THE CENTER ARE TO:

- Identify, conduct and disseminate research
- Complete practical, timely, and implementable research
- Implement innovative technologies
- Increase Missouri's participation and influence in national research

- Produce future transportation engineers
- Create an atmosphere that develops faculty and staff at the University and MoDOT

For more information about the new MCTI operation, please view the center website at: mcti.missouri.edu/. The Center assists in supporting the State's transportation needs through collaborative opportunities and offers free Monthly Webinars for pdf credit. Please see mcti.missouri.edu/upcoming-events/ to learn more about upcoming events or contact us at mcti@missouri.edu.

Article Prepared by Dr. John J. Myers, P.E., Ph.D., MCTI Deputy Director, Missouri S&T



Image of the Center Grand Opening on Dec. 17, 2019 in Jefferson City, Mo.



National Center
for
Rural Road Safety

YOUR TRUSTED "SAFETY SIDEKICK" TO MAKE RURAL ROAD TRAVEL SAFER!

The National Center for Rural Road Safety opened in December 2014. Funded by the Federal Highway Administration, this Center of Excellence is focused on enhancing safety on rural roads by supporting local, state and tribal road owners and their stakeholders. Resources include education, training, tools and technical assistance.

To learn more about the National Center for Rural Road Safety, visit their website ruralsafetycenter.org

Please visit our website for other training courses:

MOLTAP.ORG

Level I

\$45/person
8:00 AM - 12:00 PM

Level II and Super Scholar (LIII)

\$55/person
10:00 AM - 3:00 PM
Lunch is included

For non-government or for-profit organizations, call 1.866.MORoads for rates

Attendance Policy

The Missouri LTAP staff would like to remind all agencies registering for classes that it is important to sign-up before the registration deadline to allow us time to plan for course materials, refreshments, etc. It is equally important that you let us know at least 48 hours before the class if some of your employees will not be attending. Please note that you will be charged for any no-shows; therefore, it is very important that you let us know at least 48 hours before. This policy was approved by our Missouri LTAP Advisory Board and ensures that we have an accurate count for class attendance. Thank you and we look forward to meeting your training needs.

Need training but don't have the budget to pay for travel expenses?

We can train your employees on location for a minimum of 20 people. You can invite other interested agencies in your area if necessary to meet the minimum. Call and discuss your training needs with our staff.

CONTACT US TO FIND OUT MORE!

**T: 866.MO ROADS
(667-6237)**

E: moltap@mst.edu

MO-LTAP SCHOLARS PROGRAM

A Training & Recognition Program



About The Program

The primary purpose of the MO-LTAP Scholars Program is to recognize skilled transportation and public works personnel in local agencies throughout Missouri. The program is intended to enhance the skills of all those involved in the maintenance, delivery, and management of local transportation and infrastructure. Training is aimed at increasing each participant's technical, maintenance, administrative, and supervisory skills depending on the program level. Electives can be selected to meet the individual's area of responsibility. Special emphasis will be given to safety in the workplace as well as in the field and in the development of a local transportation system. The program will allow participants to attain three levels of achievements: Level I, Level II, and Level III Super Scholar. Participants must complete the requirements for Level I before completing Level II.

Getting Started

Registration is available on the Missouri LTAP website (www.moltap.org). There is no registration fee for the program, but there is a fee for each class, which varies for each level. Classes are offered on an ongoing basis at various locations throughout the state. Contact Missouri LTAP for classes in your area or view the online training calendar.

Recognition

Certificates will be awarded by the Missouri LTAP Director to those individuals who successfully complete the requirements of the program during award ceremonies held at various conferences throughout the state and/or at a ceremony held at the graduate's place of employment.

LTAP TRAINING RESOURCES

FHWA Essentials for Local Public Agencies

Federal-aid Essentials for Local Public Agencies is a transportation resource designed to help local agency professionals navigate the Federal-aid Highway Program. Federal-aid Essentials is structured for busy agency staff who want further understanding of Federal-aid policies, procedures, and practices.

fhwa.dot.gov/federal-aidessentials/indexofvideos.cfm

Missouri Local Public Agency Program

The Federal Highway Administration (FHWA) and MoDOT offers a free 4-hour training class designed to meet the recently implemented requirements for a Full Time Sponsor Employee to serve the role as the Person In Responsible Charge in order to receive Federal-aid funding for Locally Administered Projects. Local public agencies and consultants will be required to have taken this basic training course.

design.modot.mo.gov/lpatraining/

APWA – Professional Development

APWA offers online, face-to-face, and on-demand programs, with educational content that fits within your time and travel constraints. The Donald C. Stone Center provides professional development opportunities for the next generation of public works leadership.

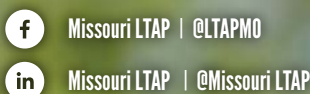
apwa.net/learn

NHI – Training Resources

National Highway Institute, NHI, is the training and education arm of the Federal Highway Administration (FHWA) with its rich history of innovation and expertise in delivering transportation training.

nhi.fhwa.dot.gov/home.aspx

**FOLLOW US ON
SOCIAL MEDIA!**



MODOT LPA PROGRAM

The Missouri Department of Transportation (MoDOT) provides guidance for special funding programs and other programs that impact work performed by localities, and serves as a liaison to local governments who seek federal reimbursement for their projects.

LPA TEAM

Julie Stotlemeyer P.E., Assistant State Design Engineer - LPA Design

Laura Ellen, P.E., Design Support Engineer Design

Andrew Seiler, Transportation Planning Specialist Design

Rod Braman, Planning Technician Design

District LPA Contacts visit:
modot.org/contact-modot-lpa

VISIT: modot.org/local-public-agency

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888.295.7796 (Toll free | 573.751.3415)

For information about the program, visit: oa.mo.gov/purch/surplus.html

Eligibility requirements can be found under "Read about the Program"

REALTY FOR SALE

The Missouri Department of Transportation is responsible for managing realty assets owned by the Missouri Highways and Transportation Commission. Realty assets are periodically reviewed to determine if they are essential to current operations, or are expected to be in the near future. When realty assets are no longer essential to operations, they may be made available for sale to the public.

VISIT:
www6.modot.mo.gov/PropertyForSale



MODOT SAVINGS SURPLUS

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Prices, mileage, condition, and purchasing instructions can be viewed online:

modot.mo.gov/business/surplus

**NO EQUIPMENT FOR SALE
AT THIS TIME**