

# MISSOURI LTAP

MISSOURI LOCAL TECHNICAL ASSISTANCE PROGRAM  
LOCATED AT MISSOURI S&T

WINTER EDITION 2022

**6** STEERING CLEAR OF CRASHES

**12** WINTER MAINTENANCE SUBCOMMITTEE:  
RESILIENCE IN THE FACE OF A PANDEMIC

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# FROM THE *DIRECTOR*

Hello everyone!

As the holiday season quickly approaches, I reflect on the activities over the past several months as well as anticipate those in the coming year. 2021 has been another period of transition, but I am pleased the methods Missouri LTAP implemented to deliver training during the Pandemic remained successful. Therefore, we will continue to offer diverse topics as webinars in addition to our in-person classes. The University recently lifted mask requirements in classrooms and eased other restrictions. Therefore, in addition to scheduling classes for individual agencies, we will return to also hosting classes in central locations. We will continue to follow all CDC and university guidelines.

We recently hosted, in partnership with MoDOT, a 2-hour online ADA basic training instructed by the FHWA Resource Center on October 20. Approximately 370 participants joined the discussion of federal guidelines of the Americans with Disabilities Act. On October 27, we hosted a webinar titled, "The When and Where of Signing & Pavement Marking Standards (Understanding & Applying the MUTCD)". You might recall I mentioned in previous newsletters that we had been coordinating a MUTCD overview with MoDOT staff. Tom Honich, MoDOT Traffic Liaison Engineer, taught the training and highlighted the public roadways that must follow the MUTCD, the organization of the manual, expected changes in the upcoming edition, and other relevant topics to local public agencies. We are gathering comments from participants in hopes of organizing another webinar on additional MUTCD topics. Missouri LTAP was excited to offer a webinar in partnership with the Soy Transportation Coalition (STC) on November 15. The STC released a report, "The Top 20 Innovations for Rural Bridge Replacement and Repair" to promote more cost-effective approaches to replace and repair rural bridges without compromising safety. We also held part 4 of a four-part webinar in coordination with the Missouri Pavement Preservation Council on November 16.

MoDOT recently presented three days of in-person construction administration training at the Maryland Heights Community Center. Session 1, Improving the Daily Diary, was held on December 7. Session 2, Construction Contract Administration, was held on December 8 and 9. We also hosted an online training December 8, Culvert Slip-Lining and Rehabilitation. This review of stormwater structures focused on the factors that affect culvert deterioration as well as both the pros and cons of temporary repair methods. In addition, the presentation discussed common trenchless rehabilitation techniques and an in-depth review of InfraSteel Culvert Rehabilitation. Related topics included a review of culvert and bridge rehabilitation applications, the slip-line installation process and methodologies along with trenchless rehabilitation project considerations. We are coordinating several more webinars in early 2022. Most of these trainings are 1 to 2 hours and scheduled around lunch time. Please see our website, [www.moltap.org](http://www.moltap.org) for more information on all upcoming trainings.

We hope everyone has a very safe and festive holiday season.

Happy Holidays,

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



## In this ISSUE

FOURTH QUARTER 2021



# 4

### REDUCING THE POTENTIAL FOR CRASHES

In this newsletter, we focus on the second objective: reduce the potential for crashes, which targets a vehicle that has already left its intended lane of travel.



# 5

### TRANSITION FOR MISSOURI LTAP QUARTERLY NEWSLETTER

Update for the quarterly newsletter.



# 6

### STEERING CLEAR OF CRASHES

New Clear Roads training materials provide snowplow operators with strategies to increase their vehicles' visibility and avoid being struck in the line of duty.



# 10

### WHO'S DRIVING YOUR PLOW?

The notion of automated vehicles is by no means a new one, but it has been developing and coming into focus rather more in the past five years than previously.



# 12

### WINTER MAINTENANCE SUBCOMMITTEE: RESILIENCE IN THE FACE OF A PANDEMIC

Unlike many other professions, whose workers have been able to do business remotely or virtually during the pandemic, winter maintenance operations required in-person attendance for all of our frontline



# 14

### CELEBRATING 40 YEARS

December 23, 1981 is a historical moment in time for the Local Technical Assistance Program (LTAP). It was the day then President Ronald Reagan signed a bill into law that officially established the Rural Technical Assistance Program (RTAP).

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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.



# MISSOURI'S SAFETY CIRCUIT RIDER PROGRAM

## REDUCING THE POTENTIAL FOR CRASHES

### ASSISTING LOCAL AGENCIES IN REDUCING THE NUMBER OF FATALITIES AND CRASHES ACROSS MISSOURI'S ROADWAYS.

The Federal Highway Administration's (FHWA) Focus on Reducing Rural Roadway Departure (FoRRRwD) Initiative consists of four pillars:

1. All public roads
2. Proven countermeasures
3. Systemic approach
4. Safety action plans.

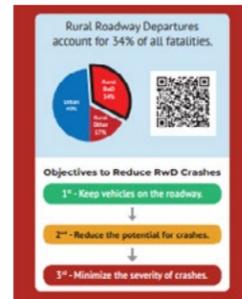
Further, FoRRRwD sites three objectives for reducing the number or severity of rural lane departures:

1. Keep vehicles in their lane
2. Reduce the potential for crashes
3. Minimize crash severity.

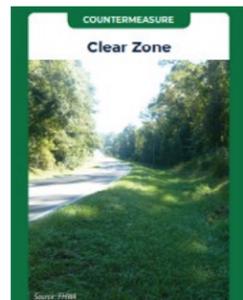
In the past, I shared some methods to keep vehicles in their lane as part of the first objective. In this article, I want to focus on the second objective: reduce the potential for crashes, which targets a vehicle that has already left its intended lane of travel. Intuitively, the driver should attempt to safely steer back into the lane of travel or come to a stop. These two hopeful outcomes are directly affected by pavement edge slopes, clear zones, and traversable roadside slopes.

Having a well maintained 30-degree edge on a paved roadway prevents tire-scrubbing, which enables vehicles to drive back onto the pavement with less likelihood of roll-over or head-on crashes. Flattening steep roadside slopes shows a significant reduction in single vehicle crashes. Research as shown an initial slope of 1V:2H flattened to 1V:4H reduces single vehicle crashes by 10%.

For two lane rural paved roadways, adding shoulders will reduce the crashes even further. Research shows a reduction of 13% in crashes with the addition of 2 feet shoulders, which increases an additional 10% for any 2 feet of additional width up to 6 feet (23% for 4 feet, 33% for 6 feet, and 42% for 8 feet).



An established clear zone provides an unobstructed area that reduces fixed object and rollover crashes. Rollover crashes make up 30% of rural roadway departure fatalities nationwide while tree crashes add an additional 19%. Any reduction in these types of crashes has great potential for reducing roadway fatalities!



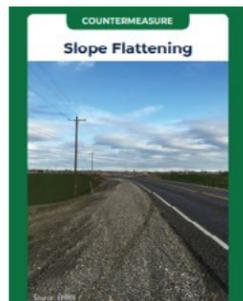
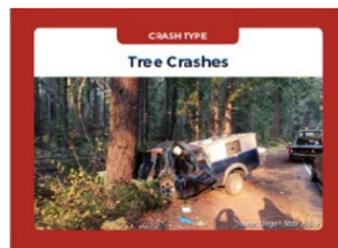
Establishing and maintaining a clear zone provides an unobstructed, traversable area where an errant driver can recover to reduce:

- Fixed Object Crashes
- Rollover Crashes

[https://safety.fhwa.dot.gov/roadway\\_dept/countermeasures/edge\\_recovery/clear\\_zones/](https://safety.fhwa.dot.gov/roadway_dept/countermeasures/edge_recovery/clear_zones/)

Increase Distance for Trees By	Crash Reduction
5 feet	23%
5 feet	34%
8 feet	49%
10 feet	57%
15 feet	66%

Source: NCHRP Report 440



Flattening steep slopes provides a better opportunity for vehicles to traverse the slope, reducing the likelihood of:

- Rollovers
- Fixed object crashes

Before Side Slope	After Side Slope		
	1V:4H	1V:5H	1V:6H
1V:2H	30	15	21
1V:3H	8	34	19
1V:4H	-	9	12
1V:5H	-	-	6

Source: ADOTD Highway Safety Manual



**Reference:**

[safety.fhwa.dot.gov/FoRRRwD/TradingCards/PrintFiles/RRRwD\\_TradingCards\\_Desktop\\_UpdatedInstructions.pdf](https://safety.fhwa.dot.gov/FoRRRwD/TradingCards/PrintFiles/RRRwD_TradingCards_Desktop_UpdatedInstructions.pdf)

Missouri's Safety Circuit Rider Program assists local agencies in reducing fatalities and crashes on their local roadway systems. If your local agency has an identified safety issue to address or is interested in learning the current crash/safety statistics for your local roadway system

and potential low-cost improvements, please contact me. Would your agency be interested in utilizing Highway Safety Improvement Program (HSIP) funds for signing upgrades for safety improvements on your local roadway system? If so, I need your input on developing this type of program as well as any other suggestions you have. I look forward to hearing from you!

Safe Travels,  
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**Information on FHWA Proven Safety Countermeasures:**  
[safety.fhwa.dot.gov/FoRRRwD/countermeasures.cfm](https://safety.fhwa.dot.gov/FoRRRwD/countermeasures.cfm)  
[safety.fhwa.dot.gov/provencountermeasures](https://safety.fhwa.dot.gov/provencountermeasures)  
[safety.fhwa.dot.gov/roadway\\_dept/countermeasures/horcurves/](https://safety.fhwa.dot.gov/roadway_dept/countermeasures/horcurves/)  
[safety.fhwa.dot.gov/provencountermeasures/pdfs/fhwasa17058.pdf](https://safety.fhwa.dot.gov/provencountermeasures/pdfs/fhwasa17058.pdf)

# TRANSITION FOR MISSOURI LTAP QUARTERLY NEWSLETTER



Please note that we will be transitioning to fewer printed copies of our quarterly newsletter to save money. Currently we mail nearly 2300 copies each quarter. Several agencies receive multiple copies, so we will be trying to reduce this redundancy. Many agencies have indicated they are willing to route one copy among their staff. Of course, the newsletter is available in electronic format as well. We also plan eventually to only print the first and third quarter additions each year. Reducing printing costs will allow us to use our limited funding to provide additional training to local agencies. We appreciate your understanding and hope this change does not create any frustrations for the agencies we serve.



# STEERING CLEAR OF CRASHES

Katie Johnson Researcher and writer CTC & Associates LLC Madison, Wisconsin

**NEW CLEAR ROADS TRAINING MATERIALS PROVIDE SNOWPLOW OPERATORS WITH STRATEGIES TO INCREASE THEIR VEHICLES' VISIBILITY AND AVOID BEING STRUCK IN THE LINE OF DUTY.**

**WHEN A SNOWPLOW IS INVOLVED IN A CRASH—EVEN ONE THAT'S RELATIVELY MINOR—IT CAN HAVE MAJOR REPERCUSSIONS FOR A TRANSPORTATION AGENCY.**

Rear-end collisions and crashes while turning are common and are not usually the plow operator's fault, but that knowledge does little to comfort maintenance managers who now face the challenge of clearing ice and snow with fewer resources.

"Every year, we have 3 to 5 percent of our trucks taken out of service because they've been rear-ended," says Doug McBroom, operations manager for the Montana Department of Transportation. "It's a huge problem because once someone with a commercial driver's license is in a crash, it triggers a series of things that have to happen before they can legally drive again. On top of that, the truck is out of commission while being evaluated by our mechanics, who are in turn taken away from their usual work."

To reduce these types of crashes and make the roads safer for everyone, the Clear Roads winter maintenance consortium ([clearroads.org](http://clearroads.org)) engaged a team of researchers from Virginia Tech Transportation Institute's Center for



Truck and Bus Safety. The team was tasked with identifying the most common reasons that vehicles strike snowplows and recommending steps that plow operators can take to lessen their odds of being hit.

### PRIORITIZING SAFE ROADS

The research team collected data from more than a thousand documented crashes involving snowplows and interviewed plow operators and winter maintenance managers from across the country. The information revealed the five most common preventable crash types: fixed-object strikes; runoff-road crashes; backing crashes; wing-plow strikes; and rear-end strikes by another vehicle.

The team then compiled specific recommendations for snowplow operators to help them anticipate and avoid crashes.

### DRIVING SAFELY

While most agencies discuss safe driving techniques during operator training courses, the practices compiled through the Clear Roads study can serve as a good reminder for even experienced operators. These strategies include:

- Learn the route. Driving the route ahead of winter weather can help operators learn what to expect, while

marking potential hazards can help identify risky areas and objects that may become hidden under snow.

- Watch for hazards. Be constantly vigilant for potential dangers directly ahead and further down the road. A visual scan for hidden and visible dangers, including a check of all mirrors at least every 8 to 10 seconds, can give operators more time to react and prevent crashes.
- Keep fatigue in check. Most operators report feeling tired during their shift. Take a break to walk and stretch at least every two hours.

### DRIVING DEFENSIVELY

Strategies for proactively avoiding collisions are less commonly included in operator training programs. The recommendations developed by the Clear Roads researchers provide intuitive but effective strategies to improve safety for all road users.

- Maintain visibility. Adverse weather and nighttime conditions can make it hard for others to see the plow. Periodically stopping to check that lights are working and clear of snow and ice can ensure that the plow is conspicuous to other drivers.
- Use caution. Generally, driving more slowly and patiently can reduce the odds of a collision. Let traffic

pass and be sure to signal well in advance of lane changes, merges or turns.

- Reduce the snow cloud. As the plow travels, it can leave a trail of airborne snow in its wake. Slower speeds reduce this effect and can make it easier for other drivers to see the road ahead.
- Avoid moving in reverse. Backing up can be dangerous and should be avoided whenever possible.
- If backing is necessary, get help from a second person, or get out and check all around the plow for obstacles.
- Keep calm. If other drivers become impatient, it's important to remain cool and not engage.

### PASSING THE TORCH

To help transportation agencies share this guidance with their plow operators, the researchers created modular training courses for safe and defensive driving that agencies can customize to fit their needs. Both courses integrate with Clear Roads' popular Snowplow Operator and Supervisor Training modules, providing presentation slides, instructor guidance and exam materials as well as videos and animated simulations to demonstrate key concepts. All materials can be downloaded for free from the Clear Roads website.

The training materials were completed and released ahead of the 2020 winter season. While initially intended to be used in a live classroom setting, they proved to be an invaluable source of quality digital content as the COVID-19 pandemic forced many agencies to quickly pivot and take their educational offerings online.

**“IN THE PAST WE DEVELOPED OUR OWN MATERIAL AND PRESENTED IT LIVE,” SAYS KEVIN DUBY, THE STATEWIDE ROAD WEATHER MANAGER FOR THE ARIZONA DEPARTMENT OF TRANSPORTATION (ADOT). “COVID HELPED US REALIZE WE CAN DO TRAINING ONLINE, WITH LITTLE COST, LESS TRAVEL AND LESS DISRUPTION TO OUR WORKFORCE.”**

Other state DOTs, like Indiana and Delaware, plan to integrate some or all of the new materials into their training programs ahead of the 2021 winter season. As editable PowerPoint™ pre-presentations, the slides can be modified for easy integration into an agency's existing training programs.

“We're using the slides and notes and prerecording the presentations,” DUBY explains. “We also replaced the pictures in the materials with look-alike pictures from ADOT.”

No matter how an agency chooses to customize the materials, McBroom just wants to get the word out.

“We want the roads to be as safe as possible,” he says. “Plow operators are working to keep roads clear, but sometimes the plow is contributing to the hazard—like with the snow cloud. By helping operators understand the potential dangers and what they can do to minimize them, we're improving safety for everyone.”

The training materials discussed in this article can be accessed through the Clear Roads website:

- Safe driving for snowplow operators: [clearroads.org/download/safe-driving-training](https://clearroads.org/download/safe-driving-training)
- Defensive driving for snowplow operators: [clearroads.org/download/defensive-driving-training](https://clearroads.org/download/defensive-driving-training)
- Snowplow operator and supervisor training: [clearroads.org/project/12-04](https://clearroads.org/project/12-04)

Katie Johnson is a researcher and writer at CTC & Associates, which provides management services for the Clear Roads Pooled Fund. She can be reached at [katie.johnson@ctcandassociates.com](mailto:katie.johnson@ctcandassociates.com).

[apwa.partica.online/reporter/october-2021/features/steering-clear-of-crashes](https://apwa.partica.online/reporter/october-2021/features/steering-clear-of-crashes)



# WHO'S DRIVING YOUR PLOW?

Wilf Nixon, Ph.D., P.E., PWLF, President, Professional Snowfighters Association, Iowa City, Iowa, and member, APWA Winter Maintenance Subcommittee

**The notion of automated vehicles is by no means a new one, but it has been developing and coming into focus rather more in the past five years than previously.**

Vehicles with varying degrees of autonomy have been tested on the road, in traffic, and vehicles that are sold include a number of assisted driving technologies that guide and support drivers substantially. But the question remains, when will we see truly autonomous vehicles (for those with an interest in such things, that would mean with level 5 autonomy—in other words, vehicles which do not need a human driver at all, and may not even include a steering wheel, so may not be drivable by a human at all) on the road in a “production” vehicle?

Right now, you can purchase a vehicle (if you have the money!) with level 3 autonomy, which means both the driving of the vehicle and the observation of surroundings are automated, but only under certain specific conditions (for example, on a divided highway for which the vehicle has a highly accurate and updated map). And, even with these capabilities, a driver is supposed to remain alert at all times (which frankly is asking a lot of some drivers...). These vehicles are supposed to cope well with very heavy traffic conditions.

But what I want is my autonomous snowplow! Using technology to expand the capabilities of equipment is a tradition in winter maintenance. On one level, putting a wing plow on a truck is a classic example of expanding the capabilities of the truck. And more recently, equipment such as tow plows have genuinely allowed a single truck to do the work of two. In addition, there have been a number of studies looking at using technology to improve safety for snowplow operators. There were studies that used special tape in the center line of a road segment to provide a warning to an operator if they strayed across that center line. On Thompson Pass, in Alaska, they have been using high-tech sensing equipment for a number of years now, to help operators stay on the road (because going off road there is highly undesirable...). And more recent uses of technology include putting traffic light pre-emption equipment on snowplows, and also sending information directly from the snowplow truck to the Variable Message Sign (tested in a pilot this past winter in Minnesota). But, when am I going to be able to do echelon plowing (with, say, five snowplow vehicles) using only one driver in the leading plow?

Well, the answer is that if I am plowing on an airport I can do that already. At Frankfurt Airport in Germany, at Fagernes Airport in Leiren, Norway, and at the Richardson International Airport in Winnipeg, they are using autonomous plows, slaved to a lead plow, to clear the runways. It is significantly easier to do this on a runway compared to a road. When the plows are on the runway, they are the only vehicles on the runway (no planes, either!) and the area that needs plowing is relatively small (in terms of lane miles, anyway) and extremely well-defined geographically. In other words, many of the issues that would make similar operations on a highway very challenging are removed by doing the operation on a runway.

That is not to say it is “easy peasy”! There are, of course, lots of ways for things to go wrong on an airport runway, and the good news is that the technology to do the autonomous plowing is going to be well developed by the time we decide to try it out on highways. I do have one concern with regard to the highway scenario though, and you can probably guess what it is. There is always going to be someone who wants to go between the plows when they are plowing in echelon. That could get really interesting if you only have an operator in the lead plow. My own solution (which I suspect will be vetoed) of putting a really high-powered laser on the plows to take care of any cars that decide to get ahead of the plow is probably not acceptable...

So, the answer to “who’s driving your plow?” may well be “nobody” if not this coming winter then likely in five to ten years’ time. But, as far as I can see, that will only be in certain well constrained situations (such as echelon plowing on a divided highway). It will take a bit longer to get to the point where we have autonomous plows doing city streets and alleyways. Still, even though we are not quite there yet, “the times, they are a changin’.”

Wilfrid Nixon can be reached at (319)594-4447 or [wilf@psassoc.org](mailto:wilf@psassoc.org).

[apwa.partica.online/reporter/august-2021/columns/whos-driving-your-plow](http://apwa.partica.online/reporter/august-2021/columns/whos-driving-your-plow)

## WINTER MAINTENANCE SUBCOMMITTEE: RESILIENCE IN THE FACE OF A PANDEMIC

**UNLIKE MANY OTHER PROFESSIONS, WHOSE WORKERS HAVE BEEN ABLE TO DO BUSINESS REMOTELY OR VIRTUALLY DURING THE PANDEMIC, WINTER MAINTENANCE OPERATIONS REQUIRED IN-PERSON ATTENDANCE FOR ALL OF OUR FRONTLINE SNOWFIGHTERS.**

It is with great admiration that we express our thanks to these hardy people who have kept our communities safe and commerce moving during the most challenging winter season of our generation.

Your APWA Winter Maintenance Subcommittee has also been working hard to provide support and training opportunities for our members as we continue to chart a course forward through the ongoing COVID-19 worldwide pandemic. Our team is comprised of individuals with diverse backgrounds, both public and private, including academia, sales, operations, and leadership. We have all had to innovate and adapt to continue providing our customers the level of service they expect during the winter season.

The primary role of the Winter Maintenance Subcommittee is to advocate for innovations and efficiencies in the public works sector of the winter maintenance profession in conjunction with private industry. Our methods of advocacy, education and training are not immune to the need to innovate. In particular, the challenges forced upon us during this ongoing pandemic have required substantial, long-term changes to the ways we share knowledge.

### TRAINING AND EDUCATION

Due to mandated restrictions imposed at local, state and national levels, both the Winter Maintenance Supervisors Certificate Program and Winter Maintenance Operators Certificate Program had to be delivered in a virtual, remote learning format over the past year. Your Winter Maintenance Subcommittee members recorded each section of both programs, which can be accessed at the student's convenience. Many other "live" virtual events were delivered through individual chapters and at national events where subcommittee presenters were able to directly interact with the audience. Obviously, we all would much prefer to be able to deliver training in person, but having the option of virtual recorded or a virtual live training is filling a great need within the winter maintenance community. If you would like information on how you can host the Supervisors Certificate Program and/or the Operators Certificate Program, or to access virtual training sessions, please contact APWA staff.

Sadly, we were not able to gather in person in Grand Rapids for our 2021 North American Snow Conference, but we were still able to deliver a great virtual conference from April 20 to 22. Over those three days there were 34 varied educational sessions open for attendance. In addition, the Winter Maintenance Supervisors Certificate Program was delivered April 26-29 and the Winter Maintenance Operators Certificate Program was delivered May 4-5. We hope to see everyone next year in Pittsburgh!

Every year in October our group contributes to the Winter Maintenance edition of the APWA Reporter while

the "Open Your Winter Toolbox" series in the Reporter continues to appear every month. Subcommittee member Wilf Nixon authors most of these articles, with guest writers contributing as they are available. Each timely and informative article takes on a different subject and involves tools, technology or innovations that agencies can consider implementing to improve their operations. In this series, Wilf and the guest writers discuss nearly all topics of interest in winter maintenance. As programs and innovations arise, they are sure to be discussed when you "Open Your Winter Toolbox" each month.

The 2021 Click, Listen & Learn (CLL) topic is "Interpreting and Using Winter Maintenance Data." This topic will be presented by Ben Jordan from the University of WisconsinMadison, Matt Morreim, City of St. Paul, Minnesota, and Kevin Hensley from the City of Grimes, Iowa. Please join us on October 28, 2021 as our three presenters discuss the types and uses of data in our daily operations.

### OTHER NEWS

Even though in-person meetings have been a challenge throughout the pandemic we were able to hold virtual subcommittee meetings on June 28 and August 29. As a group we continue to identify the need for training in specific areas of the winter maintenance profession. Look for continued emphasis on equipment calibration at future events and in articles.

Many of our members are currently serving with other groups both inside and outside APWA. Inside APWA: Wilf Nixon is representing winter maintenance interests on the Autonomous/Connected Vehicle Subcommittee. Bret Hodne currently serves on the Professional Manager/Snow and Ice Control Award Committee. Ben Jordan is working with Leadership and Management on a benchmarking project. Wilf Nixon serves on the Trending Technologies Committee and Marc Valenti has received a presidential appointment to serve on the Operations and Maintenance Task Force. Outside APWA, Kevin Hensley serves as our representative to the Clear Roads consortium and Matt Morreim is our member serving with AASHTO's SICOP (Snow and Ice Pooled Fund Cooperative Program). Several of our members are currently serving on Transportation Research Board (TRB) committees such as the Winter Maintenance Committee and Roadweather Committee.

Our subcommittee regularly fields media requests through APWA and drafts articles for the many industry publications in addition to our regularly occurring Reporter articles mentioned earlier. Our members are frequently sought-after speakers at winter-related conferences and trainings (whether in-person or virtual) in North America

and abroad, demonstrating the extent to which our APWA Winter Maintenance Subcommittee members are viewed as leaders in the profession.

### LEADERSHIP: GIVING BACK TO OUR COMMUNITY

The highlight of our year was the announcement by APWA that subcommittee member Wilf Nixon was chosen as one of the Top 10 Public Works Leaders of the Year for 2021.

Wilf's honor is well deserved as he has held many varied roles throughout his long career including in academia, private sector employment, and nonprofits. Wilf is a valued consultant on all things winter maintenance. He has authored hundreds of winter research papers, spoken at events around the world, and delivered winter maintenance education sessions to thousands of practitioners of all levels of organizational structures. Please join us in congratulating Wilf!

### WHAT'S IN STORE?

While we had all hoped for a quick end to this pandemic and a return to our previous concept of a "normal life" we now realize that some of the impacts of the challenges we have faced through this pandemic may continue well after the COVID-19 virus is under control. Difficulties in recruiting and retaining staff, and equipment and material shortages, coupled with reduced funding, will shape how our profession looks moving forward. With winter fast approaching (or upon us for some), what challenges lie ahead for us in this coming winter season? The Winter Maintenance Subcommittee will continue to innovate, advocate and deliver training opportunities as we all plot a course through these challenges.

As chair of this robust group of individuals, I encourage you to visit the APWA Winter Maintenance Subcommittee website and become more familiar with our members and the excellent opportunities for education and training this group delivers. Now, more than ever, we need to share experiences (both good and bad) with each other so we can all find our way through this unprecedented challenge—and end up stronger for it.

By: Daniel Schacher, Fairbanks District Superintendent, Northern Region Maintenance & Operations, Alaska Department of Transportation & Public Facilities, Fairbanks, Alaska; Chair, APWA Winter Maintenance Subcommittee

[apwa.partica.online/reporter/october-2021/inside-apwa/winter-maintenance-subcommittee-resilience-in-the-face-of-a-pandemic](https://apwa.partica.online/reporter/october-2021/inside-apwa/winter-maintenance-subcommittee-resilience-in-the-face-of-a-pandemic)



# Celebrating 40 YEARS

Photo by: Sam O'Keefe

**December 23, 1981 is a historical moment in time for the Local Technical Assistance Program (LTAP). It was the day then President Ronald Reagan signed a bill into law that officially established the Rural Technical Assistance Program (RTAP).**

The purpose of RTAP was to provide technical assistance, training, and products to counties within the States. By 1991 under the Intermodal Surface Transportation Efficiency Act legislation, the RTAP concept was expanded to include urban areas renaming the program, LTAP. In addition, the Tribal Technical Assistance Program (TTAP) centers were established. Today, there is an LTAP center in every State including Puerto Rico that services more than 38,000 local agencies and a TTAP center that serve the American Indian Tribal Governments.

The Federal Highway Administration (FHWA) is proud to continue our support of the LTAP/TTAP network doing our

part to help grow the transportation workforce, encourage the use of innovations in technology that improve safety, and provide subject-matter support on transportation issues that help build communities. During the pandemic, the LTAPs hosted and delivered training and education to approximately 147,000 participants, offering over 1,100 trainings sessions. This speaks to the dedication of the centers and their mission to serve their communities in each State.

FHWA is collaborating with the National Local and Tribal Technical Assistance Program Association to celebrate the 40th anniversary by taking a look back at the people and the many program successes over the past 40 years. We congratulate the LTAPs and TTAPs on a successful 40 years and look forward to continuing our partnership to transform transportation for the next 40 years and beyond.

[cornell.app.box.com/v/LTAP-40-Years](http://cornell.app.box.com/v/LTAP-40-Years)



## 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](http://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](mailto: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](http://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](http://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/](http://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](http://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](http://nhi.fhwa.dot.gov/home.aspx)

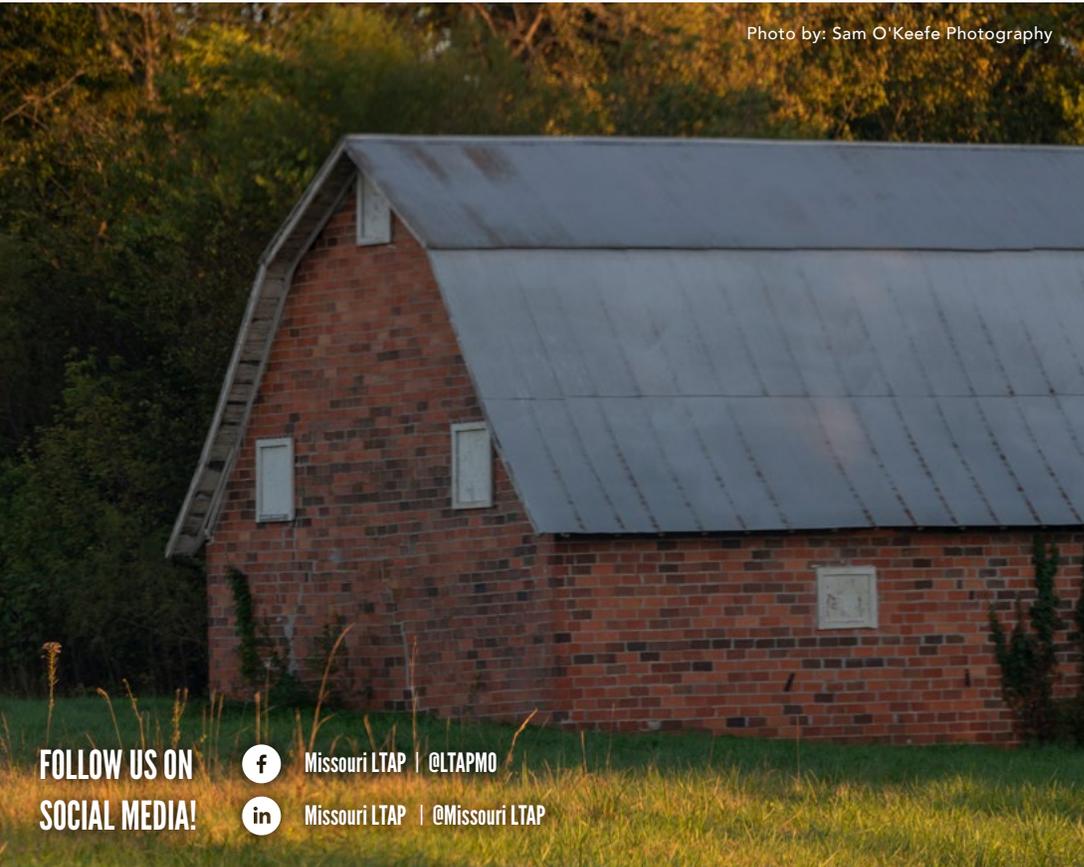


Photo by: Sam O'Keefe Photography

**FOLLOW US ON  
SOCIAL MEDIA!**



Missouri LTAP | @LTAPMO



Missouri LTAP | @Missouri LTAP

## UPCOMING EVENTS

**Please follow us on Facebook and LinkedIn for the most up to date information regarding events.**

*TRB, 101st Annual Meeting  
January 9-13, 2022  
Washington, D.C.*

*LPA ECR Virtual Training  
January 13, 20, & 27, 2022*

*MML Legislative Conference  
February 15-16, 2022  
Jefferson City, MO*

*ATSSA Traffic Expo  
February 11-15, 2022  
Tampa, FL*

*2022 NACo Legislative Conference  
February 12-16, 2022  
Washington, D.C.*

*NACE 2022  
April 24-27, 2022  
Buffalo, NY*

### MISSOURI STATE SAVINGS SURPLUS

MISSOURI STATE AGENCY FOR  
SURPLUS PROPERTY

Check out the thousands of items in  
stock at MOSASP, 2846 Highway 179 | Jefferson  
City, MO 65109  
888.295.7796 (Toll free | 573.751.3415)

For information about the program,  
visit: <https://oa.mo.gov/general-services/surplus-property>

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](http://www6.modot.mo.gov/PropertyForSale)



### MODOT SAVINGS SURPLUS

**MAKE YOUR DOLLARS GO FURTHER WITH  
MODOT SURPLUS PURCHASING!**

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

[modot.org/surplus-disposal-information](http://modot.org/surplus-disposal-information)

Surplus auctions: <https://www.modot.org/auctions-govdeals>