



SUMMER 2023

# KANSAS LTAP NEWSLETTER

A Service of The University of Kansas Transportation Center for Road, Street, & Bridge Agencies

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# A MESSAGE FROM THE DIRECTOR

By Lindsay Francis , KS LTAP



### com·mu·ni·ty

/kəmyōnədə/

noun

1. a group of people living in the same place or having a particular characteristic in common.
2. a feeling of fellowship with others, as a result of sharing common attitudes, interests, and goals.

After going back and forth on how to address this message, I landed on using the word “community,” because, by definition, that’s what I feel I have become a part of. Over the past year, as we’ve continued to engage with local agencies, it has been a privilege for me personally to meet, learn, and understand the unique needs of Kansas localities. Each interaction has enriched my understanding of the challenges and opportunities that lie before us. And I am excited to be a part of the community of individuals working together to address the needs that contribute to the growth and sustainability of our communities.

As we embark on a new quarter filled with exciting opportunities, it is with great pleasure and pride that I get to connect with you through our quarterly newsletters. This platform allows us to share updates, offer resources, celebrate achievements and recognize outstanding individuals. As I write this, there are several outstanding individuals that deserve recognition.

First and foremost, I would like to take a moment to acknowledge and celebrate the retirement of Lisa Harris-Frydman. Lisa has been an invaluable member of our team, and her contributions over the years have made a lasting impact on our organization. Her dedication, expertise, and unwavering commitment to excellence have been truly commendable. We are grateful for her leadership and the positive influence she has had on our center. We wish her a fulfilling and joyous retirement, and we thank her for her years of service.

Secondly, I would like to extend my congratulations to the 2020-2022 Kansas Road Scholar graduates. These individuals have demonstrated exceptional dedication and commitment to their professional development in the transportation industry. Through their hard work and perseverance, they have not only enhanced their own knowledge and skills but also contributed to the advancement of the field. It is an honor to recognize their accomplishments, and I wish them continued success in their careers.

Kansas Roads Scholar Graduates (2020-2022)			
	Graduate	Kansas County	District
14 LEVEL 1 GRADS	Seth Snyder	Lyon County	District 1
	Dugan Frank*	Saline County	District 2
	Ted Schmitt	Saline County	District 2
	Larry Rindt	Saline County	District 2
	Walter Reddig	Saline County	District 2
	Terry Nichols	Osborne County	District 3
	Chad Pickert	City of Ottawa	District 4
	Josh Hinderliter*	City of Ottawa	District 4
	Greg Morrow	City of Ottawa	District 4
	Matthew Waheotten	City of Ottawa	District 4
	Jeffery Clarkson	Coffey County	District 4
	Mark Griffith	Coffey County	District 4
	Janet Leiser	Coffey County	District 4
	Sueann Friesan*	Montgomery County	District 4
*3 LEVEL 2 GRADS	Dugan Frank Josh Hinderliter Sueann Friesan		

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Last but certainly not least, I would like to express my deep appreciation for the dedicated work and passion exhibited by the KUTC team in delivering the Kansas LTAP mission. The countless hours devoted to planning, coordinating and traveling to deliver our various programs are a testament to their commitment to serving Kansas local communities. Working alongside such a talented group of individuals who consistently go above and beyond to ensure the success of our initiatives has been a pleasure. Their dedication and expertise have made a difference in the lives of many, and I am truly grateful for their contributions.

In closing, I would like to express my sincere gratitude to our entire community for your ongoing support and partnership. Your feedback, collaboration, and engagement are vital as we strive to make a meaningful impact. I look forward to the quarter ahead, filled with new milestones, partnerships, and opportunities for growth.

Thank you all for being an integral part of the Kansas LTAP Community!

Happy Retirement  
Lisa Harris-Frydman!

Lisa –  
Good luck with everything you are involved with in the future. I'll remember our walks at the regional and national conference fondly. Please stay in touch.  
Your friend.  
Keith Knapp, Iowa LTAP

Lisa was one of the first people who welcomed me to the NLTAPA family when I started with Michigan LTAP 20 years ago. She has always defined what it means to be a confident, caring, and kind professional. Her smiling face and positive attitude will be missed!  
Tim Colling  
Michigan LTAP

Sorry to see Lisa leave our NLTAPA community. She has been a generous contributor to many of us across the LTAP community and was always eager to share, collaborate, and inform. What a grand lady and a good friend to all of us. A well-deserved rest from many years of service. Thank you, Lisa, and a wish for the greatest of days to come!

Matheu J. Carter, Delaware LTAP





I worked most closely with Lisa Harris in planning and hosting the MINK Conference. Her vision and commitment have been key to the event's success over the last several years. She has a warm, professional presence that welcomes everyone in and puts people at ease. Thank you, Lisa, for your outstanding service to Kansas and the region.

Megan Patent-Nygren  
Nebraska LTAP



Lisa was one of the first faces I associated with NLTAPA. I met her just days after starting as director in Missouri at our region meeting, which was just Missouri, Iowa, Nebraska, and Kansas back then. She was serving as NLTAPA president and represented the association with professionalism and grace. As overwhelmed as I felt, she welcomed and mentored me during my first few years, providing insight and tips based on all her experience. Over the years, I could always trust Lisa's assessment on the state of the association, FHWA support, and other related matters. Her dedication and service to NLTAPA and the LTAP community are second to none. I wish her the very best in retirement, which is very much deserved.

Keith Pickerill, Missouri LTAP

# CLEAR RIGHTS OF WAY

By Nelda Buckley, P.E., LTAP

The Safe System approach has six principles. Among them are that humans make mistakes, safety is proactive, and responsibility is shared. When an errant driver leaves the roadway, their life depends on that shared responsibility and a proactive safety strategy.

A clear zone is the total roadside border area available for safe use by errant vehicles. According to the FHWA, it is “an unobstructed, relatively flat area beyond the edge of the traveled way that allows a driver to stop safely or regain control of a vehicle that leaves the traveled way (emphasis added),” (Clear Zone and Horizontal Clearance).

According to the Kansas Department of Transportation (KDOT)’s most recent Dashboard Report, road departure is the highest contributing factor in fatalities (Annual Dashboard Report, 2019). Their Strategic Highway Safety Plan shows those objects struck after leaving the roadway (KANSAS Strategic Highway Safety Plan 2020-2024, 2021):

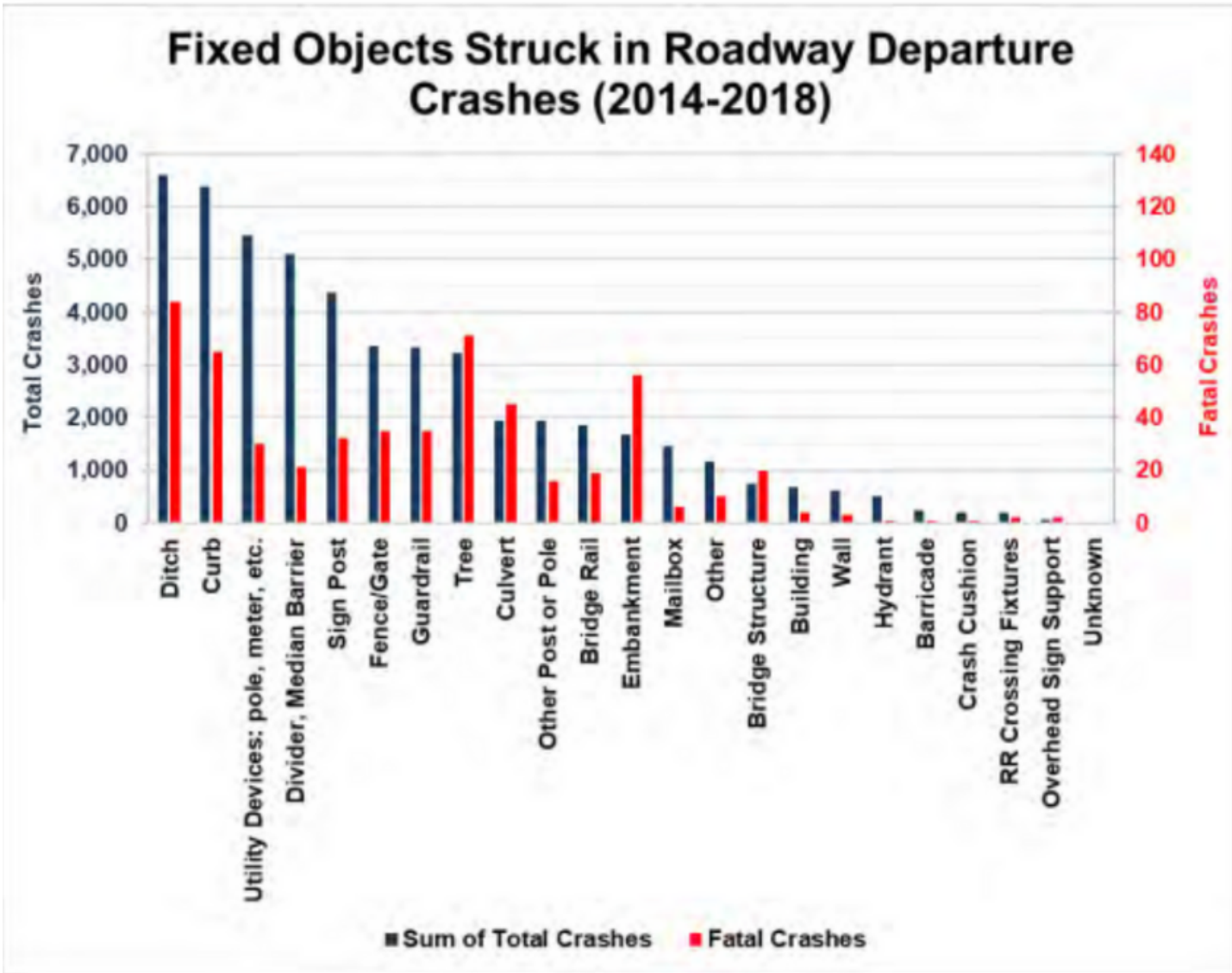


Figure 1: Table of data summarizing roadway departure crashes that involved striking fixed objects between 2014-2018.

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A driver doesn't have control over items that may be in the clear zone; that responsibility falls on the roadway owner, a utility company, or the adjacent property owner. The roadway owner often takes great care to provide a recoverable slope, often clears their right-of-way of large trees, and ensures that signs are on breakaway posts. Utility companies are likewise usually required to place any large poles near the right-of-way line. However, in many areas, adjacent property owners place items in the roadside border area that, if struck, could cause considerable harm.

Some items of concern include:

Large mailbox structures –  
at times made of brick,  
stone, or concrete

Mailbox supports – from as  
simple as a steel pipe set in  
concrete to a plow head

Driveway drainage structures with  
end sections and/or appropriate  
slopes – even with a recoverable  
slope, hitting one of these would be  
like driving into a solid wall



KDOT has an Access Management Policy that details requirements in each of these areas, including the need for end sections on culverts (Access Management Project, 2013). The US Postal Services also has guidelines but does not regulate mailbox supports (Mailbox Supports, 2007). Some local authorities, such as Hancock County in Indiana, have mailbox regulations (Mailbox Regulations).

The Hancock County regulations include limits on the location and structure of mailboxes. For example, it says that mailboxes shall be of light sheet metal or plastic construction; they shall not be set in concrete unless shown to be crash tested; and details acceptable post support options. It also outlines the consequences of non-conforming or unsafe mailboxes including removal by either the landowner or the County at the owner's expense.

So, what should a local agency do? Be proactive. Determine what to include in your policy (the Hancock County regulations for mailboxes and the KDOT requirements for structures are great starting points). Then enlist the support of your elected officials and legal representation, emphasizing the crash potential of these items. Although it may be difficult to remove existing

installations, having a policy moving forward will reduce the risk of serious injury or death to drivers and their passengers.

## RESOURCES

*Clear Zone and Horizontal Clearance - Geometric Design - Design - Federal Highway Administration. (n.d.-c).*  
<https://www.fhwa.dot.gov/programadmin/clearzone.cfm>

*Annual Dashboard Report. (2019). Kansas Department of Transportation. Retrieved June 2, 2023, from*  
<https://www.ksdot.gov/Assets/wwwksdotorg/bureaus/burTrafficSaf/reports/reportspdf/2019AnnualDashboardReport.pdf>

*KANSAS Strategic Highway Safety Plan 2020-2024. (2021). Kansas Department of Transportation. Retrieved June 2, 2023, from*  
<https://www.ksdot.gov/Assets/wwwksdotorg/bureaus/burTrafficSaf/reports/reportspdf/SHSP2021.pdf>

*Access Management Policy. (2013, January). Kansas Department of Transportation. Retrieved June 2, 2023, from*  
[https://www.ksdot.gov/Assets/wwwksdotorg/bureaus/burTransPlan/AccessMgt/Access\\_Management\\_Policy\\_Jan2013.pdf](https://www.ksdot.gov/Assets/wwwksdotorg/bureaus/burTransPlan/AccessMgt/Access_Management_Policy_Jan2013.pdf)

*Mailbox Supports. (2007). United States Postal Service. Retrieved June 2, 2023, from* <https://about.usps.com/postal-bulletin/2007/html/pb22206/mailboxkit.4.6.html>

*Mailbox Regulations | Hancock County, IN. (n.d.).*  
<https://hancockin.gov/258/Mailbox-Regulations>

# CONCRETE PAVEMENT DIAMOND GRINDING

By Mark Shelton, MO/KS ACPA

The last few articles have focused on concrete pavement restoration/preservation. The goal being to describe the benefits to the agency and the travelling public of planning and treating pavements prior to their reaching poor condition. This type of pavement system management costs less and provides a smoother ride.

The treatments discussed were full depth pavement repair and dowel bar retrofit. There are other treatments, and the National Concrete Pavement Technology Center's (CP Tech Center) publication, "Concrete Pavement Preservation Guide, Third Edition", is a great resource for all preservation treatments. In this article we will discuss diamond grinding.

Diamond grinding is a process where specialized equipment with a series of parallel diamond sawblades, 50-60 per foot, saw/grind away the top portion of the pavement in a longitudinal direction. Usually, the equipment makes an approximately 4-foot-wide path. The process uses water to facilitate the grinding and a vacuuming system to remove the water and grindings.

Local agencies and project specific specifications govern if the slurry can be deposited on the right of way or if it must be disposed of off the project site.

The purpose of diamond grinding is to make the pavement smoother. Smoother pavements are more comfortable for drivers, reduce the rate of pavement deterioration, reduce wear and tear on vehicles and are more fuel efficient for drivers.

At times diamond grinding may be used on new pavements. Sometimes in the form of "bump" grinding to eliminate an individual rough spot or sometimes over the entire pavement surface to provide an ultra-smooth new pavement. Diamond grinding is also used as a preservation treatment. On less frequent occasions, diamond grinding is the only treatment. If a pavement is experiencing some roughness but otherwise is free of unstable slabs or other distresses, diamond grinding can be used to return the pavement to a smooth surface. Most often, diamond grinding is included as the final step to other preservation treatments. For example, pavements may have joints that need to be repaired with either full or partial depth repairs, or dowel bar retrofit is used to restore the load transfer across joints, or undersealing operations have stabilized a pavement. After these treatments are utilized, diamond grinding is the final step to restoring a concrete pavement to excellent condition.

It does need to be noted there are some pavements that may not be good candidates for diamond grinding. Pavements that have D-cracking or ASR, alkali silica reaction, are not good candidates. Jointed reinforced concrete pavements reinforced with wire mesh need to be evaluated to make sure the wire mesh did not "float up" during construction. High steel will impede the diamond saw blades. Pavements constructed with granite, quartzite, trap rock, chert gravel or other very hard coarse aggregates can be diamond ground, however, the operation will be slower, and costs will be higher than for pavements constructed with a softer coarse aggregate such as limestone. Both the agency and prospective bidders need to know this information for budget and bidding purposes.

To conclude our series on concrete pavement restoration, there are many preservation strategies available to agencies. Implementing these strategies before deterioration becomes severe provides best value and best ride to the taxpayers we serve.

For more information contact:

Mark Shelton

Field Engineer

Missouri Kansas Chapter American Concrete Paving Association

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# NEW BRIDGE INSPECTION REQUIREMENTS

By Lindsay Francis, KS LTAP

In March, KDOT's Bureau of Local Projects issued an updated memo regarding the frequencies of bridge inspections. The revised memo was prompted by new federal regulations requiring KDOT to modify their existing criteria for determining bridge inspection frequencies. It is important to carefully assess your bridge inventory to determine whether certain bridges will require more frequent inspections. These changes in criteria will come into effect in June 2024 so it is crucial to take this into account while preparing your 2024 budgets.

*Memo To: County Engineers/City Engineers/Road and Bridge Supervisors/Highway Administrators/Public Works Directors and Consultants*

*Date: March 27, 2023*

*Subject: Bridge Inspection Frequency*

*RE: BLP Memo 23-04 Revised—Corrected an error in the new underwater inspection frequency criteria*

*The current Code of Federal Regulations (CFR) (23 CFR Part 650 Subpart C), dated May 6, 2022, requires state transportation departments to develop and document criteria used to determine in-service safety bridge inspection frequency intervals for routine, underwater and nonredundant steel tension members (NSTMs, formerly fracture critical members). The CFR documents factors to consider when developing the inspection frequency policy, as well as required criteria for determining when more frequent inspections must occur.*

*Upon review of the CFR, the current policy utilized by KDOT BLP to trigger more frequent inspections will need to change. This memo is to inform you of the CFR requirements so you may review your bridge inventory to determine if any of your bridges will require reduced inspection frequencies.*

*Below is an overview of the changes:*

*1) Routine inspections – (will affect approximately 400 local bridges statewide)*

- *a) Regular interval: not to exceed 24 months*
- *b) Reduced interval: not to exceed 12 months*
  - *i) Current KDOT criteria: NBI Items 58 (Deck), 59 (Superstructure), 60 (Substructure), or 62 (Culvert) ≤ 3*
  - *ii) New CFR criteria: NBI Items 58 (Deck), 59 (Superstructure), 60 (Substructure), 62 (Culvert), or 113 (Scour) ≤ 3*

*2) Underwater inspections – (will affect approximately 25 local bridges statewide)*

- *a) Regular interval: Not to exceed 60 months*
- *b) Reduced interval varies*
  - *i) Current KDOT criteria: (1) NBI Items 60 (Substructure) or 62 (Culvert) = 4 or 5 – 36-month frequency (2) NBI Items 60 (Substructure), 61 (Channel) or 62 (Culvert) ≤ 3 – 12-month frequency*
  - *ii) New CFR criteria: NBI Items 60 (Substructure) or 113 (Scour) ≤ 3 or NBI Item 61 (Channel) ≤ 5 – 24-month frequency*

*3) NSTM inspections – (will affect approximately 40 local bridges statewide)*

- *a) Regular interval: Not to exceed 24 months*
- *b) Reduced interval: not to exceed 12 months*
  - *i) Current KDOT criteria: NBI Items 59 (Superstructure) or 60 (Substructure) ≤ 3*
  - *ii) New CFR criteria: NBI Items 59 (Superstructure) or 60 (Substructure) ≤ 4 (based on NSTM portion of bridge)*

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CFR allows until June 6, 2024, to implement the new policy. KDOT will begin working, both internally and with our external partners, to develop the new written policy. KDOT understands that these reduced frequencies will result in more frequent inspections, the cost of which will need to be included in your budgeting process, so we wanted to make you aware there will be changes forthcoming.

Sincerely,

Tod L. Salfrank, Chief Bureau of Local Projects

c: Scott King, P.E., Interim Director, Division of Engineering and DesignFile

# INNOVATION INSIGHT – PILEMEDIC

By Nelda Buckley, P.E., KS LTAP

## WHAT IS THE INNOVATION?

PileMedic is a patented fiber reinforced polymer system for repair and strengthening of worn and corroded structures such as piles and columns for bridges either on land or below water. I first heard about this innovation from Larry Conner in Barber County. He had seen a video on YouTube and thought the concept made sense. Texas and Nebraska had both done studies that looked promising, so he contacted the company. Surprisingly, the inventor himself called him.

Larry had a three-span wooden bridge with pilings in the middle that were showing wear. The company offered to fly someone to help with the first installation, but Larry and his crew decided to just follow the easy-to-understand YouTube videos. He bought enough material (including the laminate, epoxy, spacers, and grout) for ten pilings, but only needed seven pilings for the initial bridge. They have now used the rest on another bridge. He's interested to see how his bridge inspections will come out this fall.

## WHAT ARE THE BENEFITS OF THE INNOVATION?

According to PileMedic website:

- One size fits all: A roll of laminate can be cut in the field to fit any shape or size pile.
- Axial and flexural strength: PileMedic laminates are reinforcing sheets, like steel plates. They have the equivalent strength of a #4 rebar spaced every 2.5 inches.
- Confinement pressure: No bolted or glued seams that become the weak point under loading.
- Long lifespan: Made of composite materials that will not corrode.
- Ease of installation: Minimal training and equipment needed for rapid installations.
- Full restoration of pile capacity: Full capacity is reached within 24 hours.



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Larry also sees the benefit of not having to close the bridge or jack it up to do the work. For their first bridge it only took about three hours to complete the installation. He did mention that for short-span bridges without a center pier, the abutment would need to be taken out to wrap it, so much more labor would be involved.

## COST AND CONTACT INFORMATION

According to Larry, for all the material to do the ten pilings, it was about \$7,000. He could have saved some money by purchasing grout locally since it was so heavy to ship, but for his first installation, he wanted to use their underwater grout to know for sure what to purchase. For more information, check out the PileMedic website at [www.pilemedic.com](http://www.pilemedic.com), email them at [info@quakewrap.com](mailto:info@quakewrap.com), or give them a call at 520-791-7000. They are based out of Arizona.

# KDOT UPDATES

By Lindsay Francis, KS LTAP

## NEW KANSAS SECRETARY OF TRANSPORTATION

While there has been no announcement regarding a new Secretary of Transportation, Kansans are fortunate to have Calvin Reed serving as the interim Secretary until a permanent appointment is made.

## CITY CONNECTING LINK IMPROVEMENT PROGRAM (CCLIP) : PROJECT SELECTIONS

KDOT is excited to announce that the project selections for the City Connecting Link Improvement Program (CCLIP) will be unveiled by the middle of July. This program aims to enhance transportation infrastructure within cities, improving connectivity and promoting safer travel for residents and visitors alike. Stay tuned for the upcoming announcement to learn which projects have been selected.

## KANSAS HIGH RISK RURAL ROADS (HRRR) PROGRAM FUNDING

[https://www.ksdot.gov/Assets/wwwksdotorg/Headquarters/PDF\\_Files/pressrelease2023/HRRR\\_Gov\\_Release.pdf](https://www.ksdot.gov/Assets/wwwksdotorg/Headquarters/PDF_Files/pressrelease2023/HRRR_Gov_Release.pdf)

In KDOT's continuous efforts to enhance safety and efficiency on rural roads, over \$8.8 million from the Kansas High Risk Rural Roads (HRRR) program has been awarded to 19 Kansas counties. This funding aims to improve road conditions, reduce accident risks, and enhance transportation networks across these regions.

## BRIDGE IMPROVEMENT PROGRAMS: KANSAS LOCAL BRIDGE IMPROVEMENT PROGRAM (KLBIP) AND OFF-SYSTEM BRIDGE (OSB)

The application periods for the KLBIP and OSB have recently closed. Currently, KDOT is reviewing the applications to determine the projects that will receive funding. Your patience is appreciated and selected projects will be announced in due course.

## BRIDGE INSPECTION FREQUENCIES: COMPLIANCE WITH NEW FEDERAL REGULATIONS

KDOT has made modifications to its existing criteria for determining bridge inspection frequencies to comply with new federal regulations. These changes ensure that Kansas' inspection processes align with the latest standards, guaranteeing the safety and structural integrity of Kansas bridges. For more detailed information on the revised criteria, please refer to the related press release available in this newsletter.

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## KANSAS INFRASTRUCTURE HUB: FUNDING AND RESTRUCTURING

<https://kshub.org>

KDOT is planning to restructure and continue funding the Kansas Infrastructure HUB, a joint initiative that has proven vital in coordinating funding opportunities for Kansas as part of the Bipartisan Infrastructure Bill passed in 2022. To support this endeavor, the HUB has received additional funding of \$5 million per year over

the next three years. This allocation will enable the HUB to provide grant writing assistance and education to local entities, empowering them to pursue BIL grant opportunities effectively.

Furthermore, \$50 million per year over the next four years has been dedicated to assisting in local match requirements for BIL discretionary grants. While the agency that will house the HUB, formulate policies and procedures, and administer local match payments has yet to be determined, more information is expected this fall. KDOT is actively working to ensure smooth operations for the HUB and will provide further guidance as the process unfolds.

## GRANT UPDATES

By KS LTAP

Victoria Beale will be hosting Grant Writing webinars for the CT T2 Center (in partnership with our New England APWA Chapter). It will be held on September 28th. Registration is free and is open to all agencies. You can register [here](#).

ROUTES maintains a running list of open NOFOs that may be relevant to rural transportation. This list can be found [here](#), along with historical information on these grants (including prior NOFOs). The U.S. Department of Transportation lists key upcoming NOFOs [here](#).

All Federal grants, including transportation grants, can be found at [grants.gov](https://www.grants.gov). To find transportation related funding opportunities, select "All Department of Transportation" under the "Agency" menu on the left-hand side.

The programs listed in the table on the next page are anticipating to release a NOFO in the coming months. This timeline is subject to change.

Program	NOFO Close Date	Available Funding	OA	NOFO Link
<a href="#">Charging and Fueling Infrastructure (CFI) Discretionary Grant Program</a>	June 13, 2023	\$700,000,000	FHWA	<a href="#">Apply Here</a>
<a href="#">Hazardous Materials Safety Inspection (HMSI) Grant</a>	June 19, 2023	\$4,000,000	PHMSA	<a href="#">Apply Here</a>
<a href="#">Supplemental Public Sector Training (SPST) Grant</a>	June 19, 2023	\$1,000,000	PHMSA	<a href="#">Apply Here</a>
<a href="#">Tribal Transit Competitive Grant Program</a>	June 26, 2023	\$8,935,753	FTA	<a href="#">Apply Here</a>
<a href="#">Reduction of Truck Emissions at Port Facilities Grant Program</a>	June 26, 2023	\$160,000,000	FHWA	<a href="#">Apply Here</a>
<a href="#">Safe Streets and Roads for All (SS4A) Grant Program</a>	July 10, 2023	\$1,177,213,000	OST/FHWA	<a href="#">Apply Here</a>
<a href="#">Airport Improvement Program (AIP)</a>	July 14, 2023	\$1,500,000,000	FAA	<a href="#">Apply Here</a>
<a href="#">Ferry Service for Rural Communities Program</a>	July 17, 2023	\$170,000,000	FTA	<a href="#">Apply Here</a>
<a href="#">Passenger Ferry Grant Program</a>	July 17, 2023	\$50,100,000	FTA	<a href="#">Apply Here</a>
<a href="#">Natural Gas Distribution Infrastructure Safety and Modernization Grants</a>	July 24, 2023	\$392,000,000	PHMSA	<a href="#">Apply Here</a>
<a href="#">Wildlife Crossings Pilot Program</a>	August 1, 2023	\$111,850,000	FHWA	<a href="#">Apply Here</a>
<a href="#">Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Grant Program</a>	August 18, 2023	\$848,000,000	FHWA	<a href="#">Apply Here</a>

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Program	Anticipated NOFO Release	OA
<a href="#">Rural and Tribal Assistance Pilot Program</a>	Late Spring 2023	OST
<a href="#">Multimodal Project Discretionary Grant Program (Mega, INFRA, Rural)</a>	Late Spring 2023	OST
<a href="#">Thriving Communities Grant Program</a>	Early Summer 2023	OST
<a href="#">Reconnecting Communities Pilot Program – Planning and Capital Construction Grants</a>	Summer 2023	OST/FHWA

# ADVANCING TSMO AMONG LOCAL AGENCIES

By Lindsay Francis, KS LTAP

In recent years, public agencies have had to consider and make strategic adjustments as they continue “doing more with less” and getting the most out of existing assets and systems.

Irrefutably, there has been a shift in what determines the best way to optimize the operation and reliability of this existing infrastructure.

As it relates to the transportation sector, many recognize this shift as “TSMO” (pronounced to rhyme with the word “gizmo”). This article is meant to reintroduce the concept of TSMO to local agencies, create awareness and spark interest for further discussions.

## WHAT IS TSMO?

TSMO or Transportation Systems Management & Operations is defined in the United States Code as “An integrated set of strategies to optimize the performance of existing infrastructure through the implementation of multimodal and intermodal, cross-jurisdictional systems, services, and projects designed to preserve capacity and improve security, safety, and reliability of the transportation system.” 23 USC 101 (a) (30)

According to the FHWA, an integrated set of strategies involves:

- **System** – Implementing and combining strategies as a corridor or region matures in needs.

- **Technical** – Developing a framework used to support information sharing between technology deployed on the system.
- **Cultural** – Developing a workforce that values and prioritizes the use of TSMO solutions across multiple disciplines.
- **Operational** – Coordinating day-to-day operational strategies so that corridor, region, or system-wide objectives are achieved.
- **Institutional** – Incorporating TSMO policies and processes into an agency's normal way of doing business. This step includes TSMO integration with various disciplines, such as planning, program management and design, to support long-term goals for the transportation system. This can be applied both internally and externally.

From 2015 to 2016, in an effort to change the culture of agencies to embrace operations and management of the transportation system as a new way of doing business, the FHWA provided training on TSMO principles through a series of Regional Operations Forums around the country. Beginning in 2017, the Midwest chapter of ITS America, ITS Heartland, with Kansas as the lead state, facilitated the TSMO University training program “to allow for a greater penetration of TSMO knowledge to a wider audience of transportation and operations personnel as well as decision makers.” (HDR, 2020, p.1)

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## WHAT IS YOUR ROLE IN TSMO? WHAT ARE YOU ALREADY DOING OR COULD BE DOING TO OPTIMIZE THE PERFORMANCE OF YOUR EXISTING TRANSPORTATION NETWORK?

TSMO is not unlike most other initiatives, in that its goal is to maximize safety and efficiency. What makes TSMO different, is that maximizing safety and efficiency is done without adding capacity to the existing transportation system. “Maximizing safety and efficiency, without adding capacity to the existing transportation system” sounds a lot like what you do every day, doesn’t it? Well, yes and that is because the ideology behind the concept of TSMO is often referred to as “operations”. It is important to remember that while agencies may already be doing some of these “management and operation” things, TSMO is not limited to just one strategy, it is meant to leverage a toolbox of “management & operation” strategies.

Hopefully, this isn’t the first time you’ve heard (or read) about TSMO. The concept has been around for over a decade and several State Departments of Transportation have formally adopted TSMO practices. All other agencies fall within one of three categories:

1. Formally adopted, TSMO program or plan creation and/or TSMO unit designation within their organization
2. Knowingly practice TSMO without formality
3. Practice TSMO unknowingly

Regardless of whether an agency has a formally adopted TSMO program, here are examples of TSMO strategies that you may already be doing or can do at the local level:

TSMO Strategy	How can local agencies apply this strategy?
Coordinated traffic signal timing	Review and adjust the signal timing at any adjacent signals to facilitate progression (reduce wait times, minimize stops. Also reduces fuel consumption and improves air quality)
Incident management	Provide support to incident management activities by: Promoting and managing diversion routes & Aiding in quick clearance efforts

TSMO Strategy	How can local agencies apply this strategy?
Traveler information	Provide road users with timely and relevant traveler information (delays, incidents, weather, emergencies, closures, etc.)
Work zone management	Assess possible impacts of work zones beforehand, and document strategies for mitigating the impacts (traffic control, work zone phasing plans, coordinating with other projects, detour routes)

As local agencies, it is important to remember that TSMO does not only apply to high volume routes. If we lived in a world where roads and automobiles did not exist, there would still be a need for a system to transport people and goods from point A to point B, and that system would still need to be managed and operated in the safest and most efficient way possible.

## WHERE CAN YOU LEARN MORE ABOUT TSMO?

- [FHWA – What is TSMO?](#)
- [AASHTO TSMO Guidance](#)
- [ITS Heartland TSMO University](#)

## RESOURCES

(2021) TSMO University - Regional Operations Forum Training Program. ITS Heartland. <https://itsheartland.org/tsmo-university/>

HDR. (2020) ITS Heartland TSMO University Education Project Final Report ITS Heartland TSMO Training Program. ITS Heartland. <https://itsheartland.org/wp-content/uploads/2021/11/TSMO-University-Final-Report-ver-20200428-no-App.pdf>

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# A LOOK AT THE FALL 2023 LTAP TRAINING SCHEDULE

By Megan Hazelwood, KS LTAP

Kansas LTAP is coming off of a successful Spring 2023 training season. We trained 396 employees from 16 cities, 29 counties, and 12 townships. We have hosted trainings in Garden City, Tribune, Columbus, Burlington, and everywhere in-between! Kansans have been trained on subjects such as Asphalt Road & Street Maintenance, Workplace, Jobsite, and Equipment Safety, Gravel Road Maintenance, Culverts and Drainage, and much more!

We are looking forward to bringing even more training opportunities across the state of Kansas this Fall. We will be visiting Atchison, Hays, Salina, and several other locations across the state. Kansans can learn more about Snow and Ice Control, Foundations in Customer Service, Public Works, and Legal Permitting & Regulatory Processes. Plus, we've added four new trainings to the schedule! We are offering Bridge Maintenance, Risk & Liability, Project Planning and Management, and Overview of Engineering Functions in Public Works. You can view our entire Fall 2023 schedule to the right.

We will be working on our 2024 training schedule this summer. If you are interested in hosting a Kansas LTAP training next year, please contact Megan Hazelwood at [mhazelwood@ku.edu](mailto:mhazelwood@ku.edu). As a reminder, our host venues will receive one free registration per hosted class.

If you have any questions regarding this year's training schedule, on-demand classes, or if you'd like to host a training in 2024, please email [mhazelwood@ku.edu](mailto:mhazelwood@ku.edu). We look forward to serving you all this year!

 <b>2023 TRAINING SCHEDULE</b>				
<b>VIRTUAL TRAINING PLATFORM</b>	UAS Training			
	Signing Low-Volume Rural Roads			
	Asphalt Road Maintenance			Level 1
	Providing Employee Safety			Level 2
	Concrete Road Maintenance			Level 1
	Guardrail Maintenance & Repair			Level 1
	FoRRRwD: Countermeasures			
	ADA Basic Requirements			
	Bridge 101			Level 1
	Risk & Liability			Level 1
	Legal Permitting & Regulatory Processes			Level 3
<b>SEPTEMBER</b>	9/20	Risk and Liability	Lawrence	Level 1
	9/21	Project Planning and Management	Lawrence	Level 3
	9/26-27	Public Works 1 & 2	Atchison	Level 2
<b>OCTOBER</b>	10/2	Snow & Ice Control	Garden City	Level 1
	10/3	Snow & Ice Control	Hays	Level 1
	10/4	Snow & Ice Control	Salina	Level 1
	10/5	Snow & Ice Control	Wichita	Level 1
	10/6	Snow & Ice Control	Burlington	Level 1
	10/10	Legal Permitting & Regulatory Processes	Wichita	Level 3
	10/11	Bridge Maintenance	Atchison	Level 2
	10/12	Signing Low Volume Roads	Burlington	
	10/17	Foundations in Customer Service	Garden City	Level 1
	10/19	Foundations in Customer Service	Burlington	Level 1
	10/24	Project Planning & Management	Wichita	Level 3
	10/25	Project Planning & Management	Salina	Level 3
	10/26	Making Safer Roads	Atchison	Level 2
<b>NOVEMBER</b>	11/1 & 2	Public Works 1 & 2	Burlington	Level 2
	11/7	Supervisor's Role in Enhancing Cooperative Work Relationships	Salina	Level 2
	11/8	Communication Skills for Effective Supervision	Salina	Level 2
	11/9	Overview of Engineering Functions in Public Works	Lawrence	Level 3



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# KANSAS LTAP NEWSLETTER

The Kansas Local Technical Assistance Program (LTAP) is an educational, technology transfer and service program of the Kansas University Transportation Center (KUTC). Its purpose is to provide information to local government highway departments and their personnel and contractors by translating into understandable terms the latest technologies in the areas of roads, highways and bridges.

The Kansas LTAP Newsletter is published quarterly and is free to counties, cities, townships, tribal governments, road districts and others with transportation responsibilities. Editorial decisions are made by Kansas LTAP. Engineering practices and procedures set forth in this newsletter shall be implemented by or under the supervision of a licensed professional engineer in accordance with Kansas state statutes dealing with the technical professions.

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