



Technology Exchange

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WINTER 2021

LTAP kindly requests your agency to complete the following brief survey to help guide the pavement preservation course development and content:

<https://bit.ly/3mh5mrw>
(or scan below)



The survey asks local public agencies of their current pavement/management practices and what content they recommend including the course. We appreciate your participation!

Pavement Preservation and Road Surface Management

By Chris Melson

There are estimated to be 61,300 miles [122,700 lane-miles] of public roads in Louisiana—of which 16,600 miles [39,200 lane-miles] are maintained by the State while the remaining 44,700 miles [83,500 lane-miles] are maintained by local agencies (primarily). *That's a lot of roadway*—and if your agency is like most others, there are always more roads that need repair than available funds to do so. However, there is a way to stretch your agency's limited budget, while at the same time improve the overall condition of your paved roadway network. **Pavement preservation based on the 3Rs—applying the right preventative maintenance treatment, at the right time, at the right location—has been proven to extend pavement life while saving money.** Likewise, applying key principles of asset management to pavement preservation can create a long-standing, successful road surface management program. Main elements of these programs include: maintaining a roadway inventory, routinely rating pavement condition, creating a decision making framework to select the most effective treatment, applying these treatments with quality materials and construction, and estimating the increase to pavement life of these treatments. Mature programs may also have a long-range plan where future pavement needs are anticipated and budgeted.

In February 2022, LTAP will be offering our revamped Roads Scholar #7: Pavement Preservation and Road Surface Management course. The course will provide an overview of road surface management and the basic philosophy behind pavement preservation—including the benefits of applying it to an existing network of paved roads. **Please see page 7 for class dates and how to register.**



Parish Engineers Meet for Gumbo of Learning Up in Nack-a-tish

By Rudynah Entera Capone

More than 120 members and associate members of the Louisiana Parish Engineers and Supervisors Association (LPESA) met for a successful two-day conference November 3-4 at the Natchitoches Events Center.

An appetizing gumbo of professional development and peer-to-peer networking was presided over by LPESA President David Rome and graced by Natchitoches Parish President John Richmond and City Mayor Ronnie Williams, who warmly welcomed the participants on Day 1. Legislative



LPESA President David Rome presides at the two-day conference.

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Visit www.louisianaltap.org for our current classes, training requests, free resources, and much more...

Old Challenges—New Hope

By Steven Strength



It seems like we said it last year too, but 2021 has definitely been challenging for us all. To the storms of 2020 have been added additional woes, and the pattern seems all too familiar. As we look to the New Year, however, we can point to quite a few signs of hope, indications that some return to normalcy is occurring. For

ushere at LTAP, our new LTAP training coordinator, Mia Bosco, has jumped right in with both feet and is already contributing her skills and enthusiasm to the LTAP mission. You can read more about Mia in the adjacent article. We experienced a hectic but successful training schedule this fall in an effort to catch up on courses that had to be postponed due to COVID, including two of our most popular in-person offerings—Chainsaw Safety, and Inspection of Local Bridges. We also renewed our efforts to develop a leadership program to support our local agency folks who have shouldered the challenges of the past couple of years and shown qualities of leadership in their day-to-day actions, overcoming numerous roadblocks. We also were able to re-engage with our professional partners through LPESA, APWA, and other associations, affirming the role that in-person relationships play in making our public works and transportation systems work for the people of Louisiana.

The reauthorization of federal transportation funding passed by Congress last month, and its implications for local agencies offers another sign of hope. While we don't yet know all the details, there will be new opportunities, and we will be partnering with DOTD and FHWA to learn all we can to help our local agencies understand the new law and how it can help everyone move forward. One aspect is already clear—that road safety will be a big part of the emphasis in coming years. Wherever you fit into the local agency mix, you will still have a role in not only keeping yourself safe out there on the road, but also in making your roads, bridges, and other transportation facilities safe for all users. LTAP and our partners can help you achieve that. If you haven't done so, make a New Year's resolution to get involved in your Regional Safety Coalition, take advantage of crash data and other resources made available through the Local Road

LTAP Welcomes New Training Coordinator



We are pleased to welcome our new training coordinator, Mia Bosco. She will coordinate and facilitate LTAP's classes and training initiatives across the state. She will provide logistical, administrative, and organizational support for the successful implementation of technical assistance and strategic workforce development opportunities

for the local transportation and public works personnel across 64 parishes in Louisiana.

Mia has a unique background in psychology and human resources. She was previously involved in organizational development for a healthcare home risk assessment company. She developed individualized assessments on company observations for enhanced performance and company growth. In 2019, she worked as an intern to the human resources director at Claiborne Memorial Medical Center where she helped with developing hospital-wide policies and procedures that established interdepartmental guidelines applicable to all departments. Mia holds a bachelor's degree in psychology and master's degree in industrial-organizational psychology at Louisiana Tech University. During her academic years at LA Tech, she served as research assistant and graduate assistant in the Psychology Department until she earned her MA in March 2020.

Safety Program, participate in LTAP sponsored safety training, and consider applying for a Local Road Safety project in your jurisdiction (See related article). In 2020 and 2021, Louisiana saw significant increases in traffic crashes and fatalities on our roads. Safety is an area where we can all contribute and break this unfortunate pattern of recent years while setting the course for a brighter New Year for our state. From all of us here at LTAP and LTRC, Merry Christmas and Happy Holidays to you, your coworkers, and your families.

Safety Leadership and Tailgate Talk

By Rudynah Entera Capone

This past quarter, safety leadership was one of the highlighted topics in LTAP's Roads Scholar (RS) course offerings. In **RS#5B: Creating a Safe Working Environment**, instructed by retired US Army Brigadier General Roger Shields, approximately 120 public works leaders and managers attended the series of classes held in Bossier City, West Monroe, Alexandria, Lake Charles, New Orleans, and Baton Rouge.

Shields covered topics such as roles and responsibilities of a supervisor, creating a safety culture, leadership skills relating to safety, job hazard analysis, safety training and handling inspections and investigations.

He put an emphasis on the benefits of having a safe work environment and why organizations should create a safety culture. Safety leadership is established when the management leads by example and develops a strong safety culture—a workplace where each employee becomes responsible for their safety and the safety of their fellow employees.

"A lot of companies have problems with retention of people or recruiting new employees. If the company you work for has a really good safety environment, there's a good retention environment, and it means that the supervisor and the management care about their people," he shared.

He recommended that one of the things that can be done to create a safe work environment is by simply conducting tailgate talks with your team members. A tailgate talk is a small gathering of workers around the tailgate of a truck or other spot for a brief training session on a single safety topic. LTAP has some resources on how to conduct a tailgate talk. They may be found via www.louisianaltap.org/tailgate-talks.html.

LPESA *cont. from page 1*

updates were provided by Guy Cormier, executive director of the Police Jury Association of Louisiana (PJAL).

For parish engineers and public works supervisors working tirelessly, the semiannual conference was something to look forward to. Held in the oldest settlement in the Louisiana Purchase, not only were meat pies and beignets a part of the programming, a social gathering was also in store at the Louisiana Sports Hall of Fame and Museum.

A panel session presented three of the parish-wide recovery efforts in the aftermath of Hurricane Ida. LPESA President and Terrebonne Public Works (PW) director David Rome shared data on debris removal, reaching more than 7,000 tons. Jefferson PW director Mark Drewes said they had to restore 3,200 damaged road miles, 220 bridge structures, and 159 traffic signals. Ascension Transportation Director Joey Tureau revealed how they wasted no time to clear drainage systems and transport tons of debris to get the community functioning again.

Local innovations were also shared. Warren Abadie of Lafayette Consolidated Government presented how Project Geaux Mow and Storm Mode software program innovations have streamlined their grass-cutting bidding system and hurricane work dispatching process, respectively. John Novotny of Hydra USA shared a funding

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Retired Brig. Gen. Roger Shields leads a team-building exercise called "Tent Pole." Participants were directed to extend their index finger at waist level, and then directed to lower the pole to the floor. This was a test of teamwork working toward achieving a common objective.

One of the things that can be done to create a safe work environment is by simply conducting a tailgate talk with your team members. LTAP has some resources here: www.louisianaltap.org/tailgate-talks.html



LPESA Meeting in Natchitoches

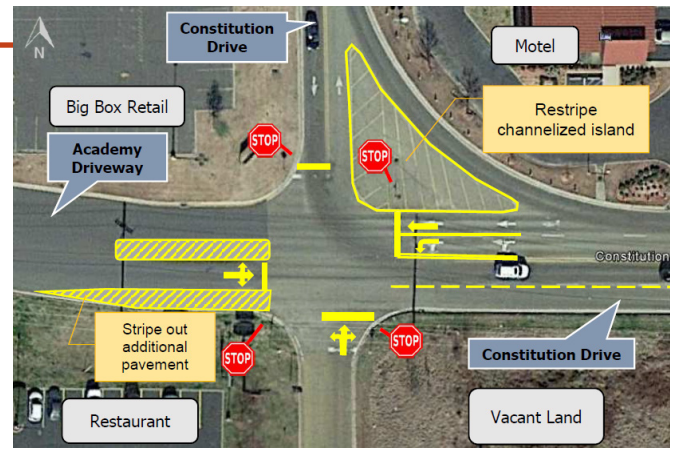
Local Agencies Working on Implementing Low-cost Road Safety Projects

By Richard Savoie

Several local agencies such as the cities of Vidalia, West Monroe, Monroe, Denham Springs, Ruston, and Baton Rouge as well as the parishes of West Feliciana, Tangipahoa, Sabine, and Vernon have recently collaborated with project consultants, DOTD, and the LTAP center for the implementation of low-cost road safety projects funded through the Local Road Safety Program (LRSP).

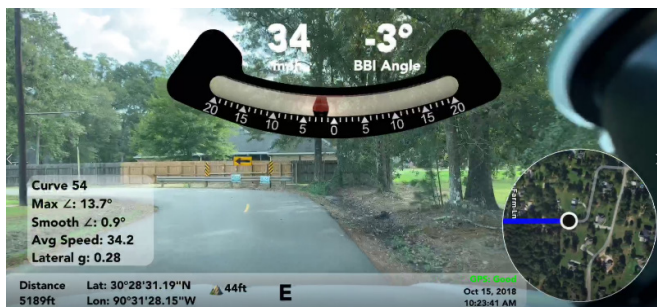
These projects included intersection realignments, signing and striping improvements, as well as traffic analysis of signalized and stop-controlled intersections and roadway segments under existing and proposed conditions. Locals collaborated with DOTD and project consultants statewide to prepare and coordinate a formal traffic study. Gresham Smith, for instance, conducted the traffic study done for Constitution Drive and its intersections with LA 617, Academy Driveway, Commercial Parkway, Short Constitution Drive, and Mane Street in West Monroe, Louisiana. As part of a retainer contract under the LRSP, the traffic study identified low-cost safety improvements aimed at improving the safety and efficiency of Constitution Drive within the study area and intersections.

Project consultants provided engineering and related services in connection with the development of construction plans for the installation of signing, striping, pavement markings, and related work on local roads in Tangipahoa Parish. The purpose of this project was to provide low-cost safety countermeasures at select high-risk locations as determined by the local entity. This project included documentation of existing roadway conditions, including ballbank testing along 39 routes consisting of over 96 miles of roadway throughout Tangipahoa Parish. It involved analysis of existing conditions, using both the MUTCD in conjunction with



DOTD pavement marking standards to design signing and striping improvements.

Several engineering firms like Gresham Smith work with parishes and municipalities across Louisiana to conduct traffic studies that help identify creative and low-cost solutions focused on improving the connectivity of our community through solutions that support the safe and efficient movement of goods, services, and people.



How to Apply for LRSP Funding

A new pre-application form is now available for local road owners seeking funding through the Local Road Safety Program (LRSP). www.louisianaltap.org/local-road-safety.html

While not an LRSP application per se, the pre-application stage is the new starting point in the LRSP project application process. Parishes, municipalities, or tribal agencies can request LRSP staff to conduct a preliminary safety review of problematic roadways or intersections within their jurisdiction with these simple pre-application forms.

Note: This pre-app form DOES NOT automatically go to LTAP upon completion. For the form to be officially submitted, you must complete, save, and email it to Leo.Marretta@la.gov. LTAP will then follow up with technical assistance to help the local agency identify safety solutions.

FHWA Updates List of New Proven Safety Countermeasures

FHWA's Office of Safety recently released its fourth reiteration of the *Proven Safety Countermeasures (PSCs)*, with nine new additions to the existing list, making a total of 28 countermeasures. This update reinforces the need to enhance safety for all road users. Every highway project is an opportunity to make it safer for motorists, pedestrians, bicyclists, and all other users. Visit the new edition at: https://safety.fhwa.dot.gov/provencountermeasures/pdf/FHWA-SA-21-071_PSC_Booklet_508.pdf

Leadership Spotlight

By Rudynah Entera Capone

This quarter, LTAP is pleased to put a spotlight on Mark Drewes, lifetime resident of Jefferson Parish (JP) and JP Government's Public Works Director. Drewes started out as JP's chief engineer of Roads and Bridges in 2001 after working as a consultant for 19 years designing roads and bridges. In 2005, he became the director of JP's Engineering Department, managing a staff of 135 employees. In 2020, Drewes became JP's Public Works director overseeing eight departments with roughly 1,200 employees. Currently, Drewes is an active member of multiple organizations, including the American Public Works Association (APWA), JP Tree Preservation and Propagation Board, JP Technical Evaluation Committee, Regional Planning Commission's Technical Advisory Committee, and LPESA.

LTAP connected with Drewes to hear his leadership insights and learn how their community recovered in the aftermath of Category 4 Hurricane Ida, which was deemed to be the second most damaging hurricane in Louisiana behind Hurricane Katrina in 2005.

Leadership Definition and Competencies

"Leadership is the ability to forge productive relationships with personnel based on mutual trust and respect," Drewes defines. It requires setting clear expectations for daily performance and defining clear goals for the future based upon open communication and collaboration.

When asked about the competencies a leader should possess in order to be effective, he relates three things: passion, perseverance, and humility. A leader must possess and be able to convey genuine concern for making a positive difference in the community as a result of decisions and actions. A leader must possess the determination and courage to overcome all obstacles to complete important goals from conception through completion. A leader must recognize personal limitations and utilize the talents of team members, which is the best way to accomplish goals.

Overcoming Challenges: In the Aftermath of Ida

Drewes also shares some of the challenges he has had to overcome particularly when Jefferson Parish had to recover from damage caused by Hurricane Ida. "In emergency situations, decisions must be made fairly quickly," he says.

The Parish's West Bank water treatment plant was pumping under generator power and holding system pressure above 40 psi (normal pressure is 60 to 65 psi) due to numerous water line breaks. One day later, two of the three generators went offline

and the pressure was gradually dropping. One of the generators was quickly restored but had to be synched with the working generator, requiring a shutdown of that generator, which would temporarily bring the system pressure below 20 psi and necessitate an indefinite Boil Water Advisory (BWA) for roughly 150,000 residents.

In working with the water director, they quickly assessed the risk involved with continuing to pump with one generator while trying to minimize pressure loss by isolating known water breaks through valve closures. Understanding that a system pressure drop below 40 psi would impair firefighting capabilities, the decision was quickly made in favor of life safety to shut the system down, synch the generators, and promptly restore pressure above 40 psi.

The public inconvenience associated with a BWA did not outweigh the potential catastrophic loss of life and property associated with one or more fires that could not be properly controlled.

Rising Through the Ranks

Drewes also shared who his role models are and how he rose through the ranks. He started out as a young road and bridge design engineer wherein his former boss, Reda Youssef, taught him the importance of thorough research and attention to detail. Following such advice enabled him to provide designs that were technically sound, cost-effective, practical to construct, and safe.

When he was promoted as the parish's engineering director, he worked under both Jose Gonzalez, P.E. who challenged him to look beyond the technical aspects of a project and Kazem Alikhani, P.E. who taught him the importance of collaborating with all stakeholders. As a result, when tasked with developing a \$300-million road bond program, he recommended projects subsequently approved by voters that dovetailed with planning projects to revitalize communities and economic corridors and that will provide quality of life improvements.

As the current Public Works director, he works for Parish President Cynthia Lee-Sheng who exemplifies the term civil servant. "Her conviction to work for what you believe is right for your community has inspired him to work diligently to properly maintain and improve all public works operations," he shares.





LPESA-LTAP-FHWA Connection

At the LPESA Conference's Social Night Event held inside the Louisiana Sports Hall of Fame in Natchitoches, FHWA Louisiana Division's highway safety specialist Betsey Tramonte (second from right) joins LTAP team members (L-R) Rudynah Capone, Courtney Dupre, Mia Bosco, Steve Strength, and Leo Marretta. View more photos at <https://bit.ly/lpesafall2021>.



Roads Scholar Program Graduate

Duncan Evans, a bridge foreman from Richland Parish Police Jury (left), was awarded a certificate of achievement during the LPESA fall 2021 conference for having completed six required courses and four elective courses in the Roads Scholar Program. Read more about the program at www.louisianaltap.org/roads-scholar.html.

Chainsaw Safety Classes: 8 Locations, Almost 500 Attendees



Nationally recognized chainsaw safety instructor Rip Tompkins was such a trooper! He instructed LTAP's classes on Chainsaw Safety, Precision Felling and Maintenance in two weeks' time in eight different locations (Covington, Amite City, West Monroe, Minden, Baker, Opelousas, Lake Charles, and Patterson) this past October. The class series wrapped up with a total of approximately 476 attendees.

View more photos here: <https://bit.ly/LTAPchainsaw>.

LPESA *cont. from page 3*

opportunity that they received from FEMA allowing local agencies to deploy small proactive efforts to avoid flooding that leads to more expensive disaster response. LTAP Director Steve Strength led a brainstorming session to encourage agencies to share their local innovations that could be entered as entries into the Build a Better Mousetrap, a FHWA-led initiative that recognizes local innovations across the nation.

On Day 2, Leo Marretta of LTAP and Betsey Tramonte of the FHWA Louisiana Division urged planners and engineers to keep local roads a priority when mitigating safety issues in their respective areas and explained a new pre-application process instigated by LTAP.

There's more to pothole-patching when it comes to maintaining pavements, as Natchitoches Parish-City Engineer Nick Verret presented about potential solutions to common pavement distresses such as cracking, potholes, and rutting. Research gurus, Corey Mayeux of LTRC and Dr. N. "Wasi" Wasiuddin of LA Tech, shared their expertise on how asphalt rubber

and reclaimed tire rubber are used in chip seal applications as well as how Caddo Parish studied the effectiveness of fog seal applications in increasing pavement life.

The round-robin talk on unmanned aerial systems (UAS) in public works brought together program experts from the academic and private sectors. Paul Karlowitz and Stephanie Robinson of University of LA at Monroe (ULM) shared the benefits of having a UAS program while Rusty Steel of Half Associates, Jeremy Gilbert of Edko, and Brad Holleman of Forte & Tablada all shared their respective drone applications and capabilities.

Alex Sherrod of Precision Pipe and Products presented how advantageous it is to use culvert slip-lining and trenchless rehabilitation. Prepared and impromptu questions relating to local bridge programs and processes were addressed during the final session of the conference moderated by Chris Melson of LTAP. Panel members included Barbara Ostuno and Kian Yap of DOTD, Dr. Ken Ward of Caddo Parish, and Butch Ford of Bossier Parish, all of whom shared their insights into bridge compliance, load rating status, "scour analysis" for new structures, and more.

LTAP Classes

Local Public Agency (LPA) Project Development and Design Process for the Responsible Charge: January 19, 2022–Baton Rouge

This class is intended for local agency personnel who will be serving as the “Responsible Charge” on LPA projects or those involved in any aspect of a project development, design, and management. Visit <https://registration.ltrc.lsu.edu/courses/view?id=125> for registration.

Roads Scholar #7: Pavement Preservation and Road Surface Management: February 2022

This class covers an overview of road surface management as well as the basic philosophy behind pavement preservation and the benefits of applying it to an existing network of paved roads. Visit <https://registration.ltrc.lsu.edu/courses/view?id=203> for locations and registration.



To register for any of our LTAP classes, log in to the LTRC registration system
<https://registration.ltrc.lsu.edu/login>

Conferences and PDH Opportunities

March 13–15, 2022: Lifesavers Conference 2022 *A National Conference on Highway Safety Priorities* Chicago, Illinois

This is an amazing opportunity to meet with and learn from highway safety professionals from across the US, expand your network, and explore career opportunities that could change your life! Read more on www.lifesaversconference.org



March 15–16, 2022: Louisiana Transportation Conference (All Virtual)

The Louisiana Transportation Research Center (LTRC) looks forward to offering you the same innovative programming and impactful learning experience as it transitions into an all-virtual Louisiana Transportation Conference. Register on https://www.ltrc.lsu.edu/ltrc_22/registration.html



April 25–27, 2022: NACE 2022 *National Association of County Engineers (NACE)* Annual Conference Buffalo, New York

Save the date for this annual gathering of county engineers, road supervisors, public works directors, highway commissioners, and road superintendents from all over the US. Read more on www.countyengineers.org





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The purpose of the Local Technical Assistance Program is to provide technical materials, information, and training to help local government agencies in Louisiana maintain and improve their roads and bridges in a cost-effective manner. To accomplish this purpose, we publish a quarterly newsletter; conduct seminars, workshops, and mini-workshops covering various aspects of road and transportation issues; provide a lending library service of audio/visual programs; provide technical assistance through phone and mail-in requests relating to transportation technology; and undertake special projects of interest to municipalities in Louisiana.