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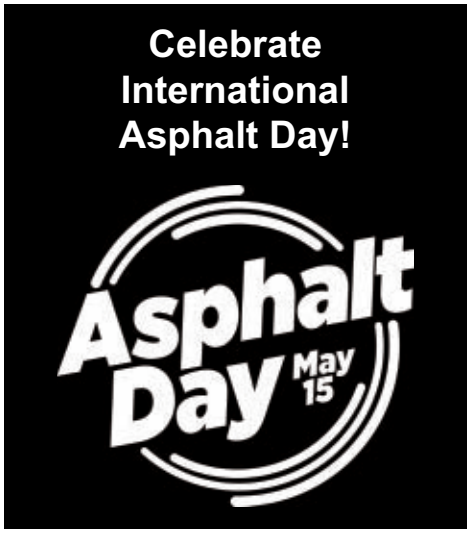

You are invited to participate in a brief survey about how you use Pavement Preservation Journal. *Please use QR code above to access the survey, which will only take a few moments. Thanks in advance for reading* Pavement Preservation Journal!

On the Cover: Rejuvenating fog seal placed as test by contractor indus in Town of Braintree, Mass. See article p 16.

IMAGE CREDIT: ERGON ASPHALT & EMULSIONS INC.

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ABOUT FP² INC.

FP² Inc. is a non-profit trade association organized under the Internal Revenue Code Section 501(c)6, and is supported by the pavement preservation industry, contractors, material suppliers and equipment manufacturers.

Formerly known as the Foundation for Pavement Preservation, FP² supports the adoption of pavement preservation at all levels of government, and works to ensure that pavement preservation becomes a part of road programs from coast-to-coast. It also supports valuable research in pavement preservation, and works in close cooperation with the Federal Highway Administration (FHWA), the National Center for Pavement Preservation (NCPP), and regional pavement preservation partnerships and state-based pavement preservation centers.

FP² also sponsors key promotional activity events, such as international and national pavement preservation conferences. It supports distribution of promotional information to support pavement preservation, such as brochures and the quarterly magazine *Pavement Preservation Journal*.

Please consider joining the leading-edge businesses and national associations above in making a financial commitment to the future of pavement preservation by supporting FP². For more information, contact FP² executive director Rick Church, (630) 230-1397, rickc@cmservices.com.

*Displayed organizations and businesses are limited to those contributing in the last six months of 2015

New Momentum in D.C. on Innovation, Local Resources and Federal Funding Plans

BY DAVID HENDERSON
President, FP² Inc.

As a foundation, we took advantage of the annual Transportation Research Board gathering, as many of our members were in Washington, D.C., to continue advancing our FP² goals. During this meeting, we welcomed two new board members, **Matt May** of Slurry Pavers, Inc., and **Adrian Johnson** of Vance Brothers. We are making progress on many fronts and appreciate the support of our industry partners.

HIGHLIGHTS OF TRB

It was encouraging to see a strong focus on innovation at TRB, particularly during Session 2109, moderated by **Meredith Hill** of the Maryland DOT. Senior leaders from several state DOTs offered substantial insights into how innovation is being operationalized within their organizations. **Nancy Daubenberger** of MnDOT emphasized that innovation is embedded within the agency's core identity, strengthened by the creation of the 2025 *Innovation of the Year Award.*

Audra Merrill of the Arizona DOT underscored the importance of intentional, value-driven innovation and noted that ADOT's century-old magazine, *Arizona Highways*, continues to serve as an effective tool for public engagement. **Brandye Hendrickson** of TxDOT described the challenges and opportunities of managing innovation amid unprecedented population growth, supported by a dedicated innovation division and expanding AI initiatives.

Christos Xenophontos of the Rhode Island DOT reinforced a pragmatic philosophy centered on adopting and enhancing proven concepts, describing his *Target Operating Model* to optimize organizational performance. Collectively, the discussion underscored the accelerating changes underway as agencies work to responsibly integrate AI, modernize operations and preserve their networks.

ADVOCACY FOR LOCAL AGENCIES

Following the board meeting, FP² vice president **Bobby Betsold** (All States Materials Group) and longtime FP² supporter **Scott Metcalf** (Ergon) engaged with legislators from New Hampshire and California to advance FP² priorities ahead of surface transportation reauthorization due Sept. 30. These meetings are focused on lawmakers with a history of supporting preservation, recycling and transportation funding.

A key message was the importance of Local Technology Assistance Programs (LTAPs), as local agencies manage roughly 80 percent of U.S. road miles while having limited access to technical resources. Lawmakers and LTAP officials expressed strong interest in expanding knowledge-sharing opportunities. This includes finding ways to better connect local agencies with resources such as the National Center for Pavement Preservation (NCPP), regional preservation partnerships and research projects like those at NCAT and MnROADs.

Along with industry partners like NAPA, we continue to support changes that expand the implementation and flexibility of work zone safety contingency funds to include qualifications for proven work zone safety technology. The safety of both our workforces and the traveling public will remain a foundational focus of FP² and our partners.

SUSTAINING FOCUS ON FUNDING

The surface transportation program reauthorization – renewed after six years – is set to expire this Sept. 30. Congress has begun shaping the next legislative package to avoid a continuing resolution, which would hinder effective planning.

While funding levels are expected to remain comparable to previous cycles, they will be organized into fewer, more streamlined programs with reduced reliance on grant-based structures. **In the House**, committee leaders have signaled their intent to mark up a draft bill in February and advance it to the floor by early April. **The Senate** is following a similar timeline, aiming to produce a bill reconcilable with the House bill. Thousands of stakeholder comments have already been submitted, emphasizing broad industry engagement.

ADVANCING OUR MISSION

Across FP²'s activities – from TRB discussions to legislative and technical outreach – one theme is clear: meaningful progress is being made through collaboration, innovation and strong advocacy.

National transportation leaders are elevating innovation as a core priority, demonstrating how new ideas, proven practices and emerging technologies can strengthen and modernize our pavement networks. FP²'s work with lawmakers continues to promote the essential role of local agencies, the need for sustainable funding solutions and the value of programs that broaden access to technical resources nationwide.

While political uncertainties remain around the reauthorization timeline, FP²'s focus on preservation, recycling, carbon-reducing treatments and work zone safety has resonated with legislators and partners alike. These efforts reflect a unified commitment to safer, more resilient and more innovative infrastructure – and FP² remains dedicated to advancing that mission alongside its industry partners.

Spirit of Innovation Marks 2025 ARRA Recycling Summit

The Asphalt Recycling & Reclaiming Association (ARRA) brought the spirit of innovation to Franklin, Tenn., last October, as more than 180 pavement professionals gathered for the 2025 *ARRA Pavement Recycling Summit*.

From Oct. 20–23, industry leaders, agency representatives, contractors, suppliers, and researchers from across North America came together to advance the shared mission of building more sustainable, resilient roadways.

The four-day event blended education, collaboration, and Southern hospitality in equal measure, offering attendees a chance to exchange ideas, explore new technologies, and strengthen partnerships shaping the future of pavement recycling.

The week began on Monday with an ARRA board of directors meeting and exhibitor setup, culminating in an exhibitor welcome reception that set an upbeat tone for the days ahead.

Tuesday opened with a true Tennessee welcome and a packed lineup of general sessions highlighting the latest in regional and national pavement recycling efforts.

Session highlights included:

- **In-place Recycling in Tennessee. Matthew Chandler**, Tennessee DOT, shared insights into the state's evolving practices.
- **HIR Work in the State of Tennessee**. **Aaron Hansen** of Dustrol Inc. detailed innovative hot in-place recycling applications.
- **CIR Considerations for Single and Multi-Unit Recycling Trains – Stephanie Drain, P.E.**, S. Drain Engineering, examined design and operational efficiencies.
- **Tennessee Counties Near 1 Million SY of FDR — Bart Walls, P.E.**, showcased impressive full-depth reclamation adoption.
- **FDR and Cement Treated Base at Tennessee Airports — Christopher Starr, Ph.D., P.E.**, TennDOT Aeronautics, presented case studies demonstrating enhanced performance in aviation infrastructure.

Roundtable brings state, county and municipal agencies together to discuss common issues

Delegates gathered at Assembly Food Hall in downtown Nashville for evening's entertainment; here Brian Diefenderfer and Elizabeth Turochy, Virginia Transportation Research Council, join Stephanie Drain, S Drain Engineering, for live music with dinner

The afternoon featured an engaging **agency roundtable** and **ARRA business meeting**, followed by technical sessions addressing national best practices.

The day concluded on a high note with a networking dinner at Assembly Food Hall in nearby Nashville, where attendees enjoyed lively conversation, local flavors, and live music in true Music City style.

APPLIED RESEARCH

Wednesday's program dove deep into applied research and field performance, featuring presentations that bridged laboratory insights with real-world outcomes.

Ben Bowers, NCAT

Mat Nayagam, Miller Group

Matthew Chandler, P.E., TennDOT

Cody Halemo, MassDOT

Dr. Ashley Buss, Iowa DOT

Stephanie Drain, P.E., S Drain Engineering

Jonathan Pease, Rock Solid Stabilization, and Scott Metcalf, Ergon

Mr. and Mrs. Scott Bergkamp, Bergkamp Inc., and John Rathbun, Cutler Repaving

Morning sessions included **Dave Jones,** University of California–Davis, and **Brian Diefenderfer,** Virginia Transportation Research Council (VTRC), exploring testing innovations for cold recycled pavements; in-place recycling findings from MnROAD research with MnROAD's **Benjamin Worel** shared Minnesota's latest performance data; Cold In-Place Recycling for Iowa's Highways with **Dr. Ashley Buss**, Iowa DOT, presenting successful CIR applications in that state;

Paver-Placed FDR in Virginia was discussed by **Elizabeth Turochy**, Virginia Transportation Research Council (VTRC), on the commonwealth's implementation approach; and standardized mix design and QC for cold recycling was conducted by **Dr. Dave Jones**, UC–Davis, offering practical guidance on ensuring consistency and quality.

Afternoon sessions turned the spotlight on regional advancements and high-traffic applications.

Thursday focused on ARRA committee meetings, including marketing and membership, cold planing, HIR, CIR, and

Full house at opening general session

Tom Colella, Highway Rehab Corp., with Aaron Hansen, Dustrol, at Dolly Parton's cocktail lounge

Todd Thomas, Asphalt Materials, Inc., talks with potential customer

This year's summit planned for Las Vegas Oct. 19-22

FDR/SS, ensuring every member had an opportunity to contribute to ARRA's strategic direction and future initiatives.

Meanwhile, the exhibit hall remained a hub of activity throughout the week. Cutting-edge equipment, emerging technologies, and hands-on demonstrations gave participants an up-close look at the tools driving greater efficiency, cost savings, and environmental benefits in pavement management.

ARRA'S BOWERS ON SUMMIT

"This was my first recycling summit as the ARRA technical advisor, and it's one I'm proud to have been a part of," said **Ben Bowers, Auburn University/NCAT**, and now of the ARRA staff. "The team of organizers – **Bryan Ray**, Rock Solid Stabilization, **Jessie Boone**, Wirtgen Group, **Tom Lenger**, Astec Industries, **Mark Stahl**, Wirtgen Group, and of course our CM Services team of **Ali Mostardo** and **Morgan Barnes** – put together a spectacular lineup of speakers.

"We heard from five different state agencies, including multiple presentations from Tennessee state and county engineers, national perspectives on FDR, new specifications, thoughts about our current test regimes, and even a little bit about the progress towards being able to generate Environmental Product Declarations for all of our disciplines," he said.

"I also got to host my first agency roundtable," he added. "To be honest, I was a little nervous as I had never actually attended one, but the group really didn't need me. The discussions between agency members from around the country was spectacular, and it was a joyful experience to hear them discussing recycling processes and learning from each other."

SPECIAL RECOGNITION AWARD

The 2025 *Special Recognition Award for Excellence in Hot In-Place Recycling* was presented to **Cody Holemo** with the Massachusetts Department of Transportation for his work on I-90, specifically the Sturbridge to Auburn project. This project covered 10 miles of interstate with an estimated cost of $31 million, including bridge work. With daily traffic of 100K to 130K vehicles and a truck volume of 16–18 percent, the project had a significant impact on maintaining infrastructure.

The original plan was a 2.5-in.mill and overlay, with an additional 1.5-in. mill and fill to address transverse cracking. However, the team revised the plan to replace the 1.5-in. mill and fill with 2-in. hot in-place recycling (HIR) for improved efficiency and longevity. In Year 1, they completed the eastern half of the project, approximately five miles and 75,000 sq. yd. This project showcases innovation and cost-effectiveness in maintaining critical infrastructure.

MARK YOUR CALENDARS

Mark your calendars for the **2026 Pavement Recycling Summit**, set for Oct. 19–22 in Las Vegas, Nev., where the conversation will continue, the technology will advance, and the industry's future will take another bold step forward.

Compiled from industry reports. Images by FP² Inc. View or download all presentations on the ARRA web site by using the adjacent QR code.

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‘Affordability’ in Transportation Key to U.S. DOT Research, TRB Delegates Hear

At the January 2026 meeting of the Transportation Research Board, delegates heard that “affordability” issues will drive much of the research supported by the U.S. Department of Transportation moving forward.

“Affordability of transportation in America is a critical issue for really most Americans, and something we need to think about every single day,” said Deputy Secretary of Transportation **Stephen Bradbury** before hundreds at the TRB plenary session.

“The theme of Year One has been [that] America is building again,” Bradbury said. “We are focused again on the basics on our core authority’s functions and duties, and cleaning out the extraneous social justice, and social policy goals and objectives of the previous administration.”

Those goals took transportation policy in the wrong direction, he said. “We really think [those policy goals] have distracted from the mission of the department,” Bradbury said.

Early-on DOT had to review an unprecedented backlog of more than 3,200 grants that had been announced or awarded, but not yet obligated (cleared with actual funding). “It was a huge task for Secretary [Sean] Duffy to review all of those awarded but unobligated grants, and clean out all of these extraneous policy objectives and aspects of the projects that we think really were a detour from the core objectives of the department,” he added.

SOCIAL JUSTICE THEMES OUT

“These grants had exhibits in them on racial justice and climate goals and environmental justice in every single grant that the previous administration was working on,” Bradbury continued. “It was a huge task to go through all of this and really refocus on what would have concrete benefit, what would actually achieve the goals of the project.”

Many of these grant projects were “re-scoped,” narrowed and focused. A small number have been terminated, withdrawn, or canceled. These included many with social justice themes.

“We frankly think that activities of the government that are based on race considerations are divisive,” he said. “They’re not consistent with the Constitution, or not consistent with our statutory authorities. The focus on trying to achieve an unrealistic carbon zero goal of reducing or trying to get to zero carbon dioxide emissions is completely inconsistent with building and expanding an affordable transportation system for Americans.”

He added, “The terminations of those grant projects sends a clear message to the research community that we want you to focus on practical innovations that are going to have commercial and real world applications to improve the utility, the efficiency, the safety, the affordability of our nation’s transportation systems in a real way, and not be interested in funding some of these extraneous social policy goals.”

EV MANDATES ENDANGERED AFFORDABILITY

He targeted electric vehicle mandates, now relaxed, as a driver of higher costs for the nation’s drivers, and thus a driver of transportation unaffordability. “[Emission and mileage requirements] were set as a policy matter at such stringent levels that they could not realistically be met by gas-powered traditional vehicles,” Bradbury said. “And they were applied on a fleet-wide average basis for the express purpose of forcing the auto industry to convert a large portion of its production over to electric vehicles. [That’s] exactly the kind of policy that is going to destroy the affordability of transportation.”

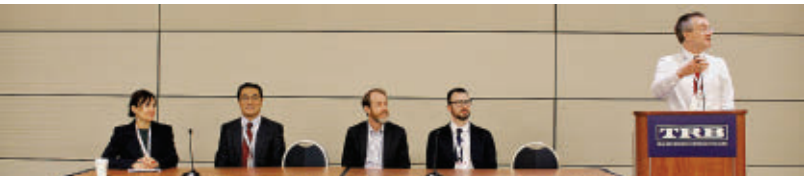
Arlis Kadrmas, BASF, FP² president Dave Henderson, Heritage Group, and Philip Williams, BASF, at popular FP² hospitality suite

FP² legislative counsel Tracy Taylor, Alignment Government Strategies, with Rick Church, FP² executive director

Hamzeh F. Haghshenas, TRB, Gonzalo Rada, WSP, and Dr. Andrew Braham, University of Arkansas, honor Dr. Adriana Vargas, NCAT, for her work evaluating hundreds of technical submittals for TRB presentations

Stormy Brewster, Marathon Petroleum, FP² past president Mark Ishee, Ergon, and Dr. Bouzid Chobane, National Center for Pavement Preservation

Dr. Andrew Braham, second from right, chairs the reconstituted Pavement Maintenance, Preservation and Rehabilitation Committee



Pavement Preservation and Maintenance was theme of panel, with Leslie Myers, FHWA; Dingxin Cheng, CSU-Chico; Mark Woods, Applied Pavement Technology; Steve Norton, Connecticut DOT; and moderator Dr. Andrew Braham, University of Arkansas

FP² is a bronze sponsor of TRB meeting

On Capitol Hill, Scott Metcalf, Ergon, meets with Rep. Salud Carbajal (D-Calif.)

Scott Watson, Ergon, with Donna Kwapis, Nouryon

Travis Walbeck, NCAT, with Tim Zahrn, Asphalt Materials Inc.

With All States Materials are Connor Campbell, FP² director Bobby Betsold, Matt Roy and Devan Purdue

Further, the higher costs of EVs would mean that Americans would not to be able to afford a new vehicle. "New vehicles are much safer in highway crashes," Bradbury said. "We want to encourage more Americans to be able to buy the vehicles they want that serve their needs."

FP² HITS THE HILL

Amid the hundreds of transportation research live presentations and poster sessions, FP² delegates found time to visit Capitol Hill to educated and advocate for pavement preservation and support for funding in the next surface transportation reauthorization, due Sept. 30.

They met with Transportation and Infrastructure and Appropriations Committee members to educate them about **pavement preservation and recycling** and the value it brings to the transportation network. FP² members also discussed: the **need to find a sustainable solution to the Highway Trust Fund**, changes to the Carbon Reduction program which would better enable the **eligibility of carbon friendly road work**, such as pavement preservation and recycling, maintaining the current **Buy America exclusion** for materials, and changes to work zone safety legislation which would **enhance the safety of work zones**.

SAVE THE DATES

The next FP² Fly-in in conjunction with the Transportation Construction Coalition will take place May 12–13. The event will kick-off Tuesday, May 12 at 11 a.m. with a Congressional briefing at the offices of Alignment Government Strategies, FP²'s legislative counsel. The afternoon of May 12 will be spent on Capitol Hill followed by a dinner. Wednesday we will continue our work on Capitol Hill, culminating with the TCC Congressional briefing from 2–5 pm. More details will be forthcoming.

We will also host a stand-alone fly-in in Washington, D.C., Sept. 22–23. Please save the date.

In-district events offer a more localized meeting with your senators and representative. As this year is an election year, members of Congress spend much more time in their districts and are looking for opportunities to meet with constituents.

From your perspective these meetings are a great way to begin (or continue) developing your relationship with legislators in Washington. It's also the best way to actually show them what your work does and the value it brings to their constituents. As the saying goes, "a picture is worth a thousand words," and this is definitely the case with a site visit. We encourage you to begin thinking about arranging meetings with your member of Congress in their districts at your facilities or projects.

Contact Rick Church for more information at (630) 230-1397, rickc@cmservices.com, and visit fp2.org/advocacy-for-preservation/ for more information on hosting a legislator in your own district.

Rejuvenating Fog Seal Tested over Decade by Town of Braintree, Shows Benefits

Historically, many road owner agencies in the Boston metro area and throughout the region would utilize mill-and-pave/mill-and-fill techniques every 10 to 12 years to address roadway distresses brought on by aging, traffic, and environmental factors.

That is, until contractor **indus** representatives helped enhance a town's understanding of the concept of pavement preservation and various options available to improve road performance, and cost-effectively extend service life. One of those options presented was **rejuvenating fog seal.**

Fog seal is placed by contractor indus in Braintree, Mass

BENEFITS OF FOG SEALING

According to FP^2 Inc., a fog seal is a light spray (typically 0.05 to 0.15 gal/sy) of a diluted asphalt or rejuvenator emulsion, applied by a distributor truck. By renewing the surface asphalt, it delays further oxidation, weathering and raveling. It seals micro-cracks and is a very low cost and effective pavement preservation treatment when applied correctly on pavements in good condition.

Rejuvenating fog seals are used to specifically alter the chemistry of the asphalt on the surface. Typically, they include oily fractions developed to restore the viscoelasticity of oxidized, hardened asphalt. There are some commercial fog seal products that do not need dilution, but the manufacturer's recommendations should be followed.

On learning more about the benefits of fog sealing from long-time industry resource Scott Metcalf of Ergon Asphalt & Emulsions, indus approached the Town of Braintree Engineering Division with what would become a years-long case study examining the impact of rejuvenating fog seal applications, including how they help delay the need for more costly maintenance over time.

FOG SEAL APPLICATIONS

The town engineer agreed to allow indus to test the potential value of fog seals on a quarter-mile segment of Granite Street, a heavily trafficked road right around the corner from indus headquarters, applying the treatment every three years until the need for more costly maintenance presented itself.

In September 2015, northbound and southbound lanes of Granite Street received a 2-in. HMA mill-and-pave. indus planned to apply a fog seal the following year and then every three years thereafter to the southbound lane of the quarter-mile test segment. The northbound lane would be left untreated, allowing indus and the town engineer to compare the condition of treated versus untreated roadway sections.

Ergon's *eFog* rejuvenating fog seal was the emulsion selected for this study. The

product is said to help restore essential elements to asphalt pavements that are lost due to the aging and oxidation processes.

"It's like sunscreen for your road," Metcalf said. "It reduces oxidation, the way a sunscreen helps prevent sunburn to the skin." Additionally, eFog helps prevent raveling caused by oxidation and can be used as a cold pour crack filler. Agencies see a typical life extension of two to four years for pavements treated with a single application.

In 2016, the rejuvenating fog seal was applied on the southbound lane of Granite Street at a rate of 0.10 gallons per square yard. Three years later, eFog was applied to the same southbound section at 0.08 gallons per square yard and then again in 2022 at 0.08 gal/sy. **Suit-Kote**, a vertically integrated asphalt emulsion manufacturer, applicator, and engineering/technical services company, provided the emulsion utilized for the 2019 and 2022 applications.

RESULTS SLOW DISTRESS

"We have witnessed raveling occurring in new asphalt pavements very soon after their installation," said Art Baker, client services manager for indus. "With the rejuvenating fog seal, we've been able to help our clients slow this pavement distress and, in several cases, prevent raveling from occurring when applied early.

"As pavement managers search for cost-effective methods to maintain their asphalts," Baker said, "we have found this fog seal to not only extend the life of their pavements, but to do it at a very low equivalent annual cost."

Results clearly show the product has delayed the need for milling and repaving. A comparison of treated versus untreated sections of Granite Street, seven years after the initial mill-and-pave, reveals noticeably more raveling and fine aggregate loss in the untreated lane than the treated lane.

Whereas the Town of Braintree would expect to mill and pave aged and distressed pavements every 10 to 12 years, if not sooner, the treated section of Granite Street is showing no signs of the need for such invasive and expensive measures.

Additionally, a snowstorm highlighted another benefit of rejuvenating fog seal as a surface protection solution that helps prevent moisture intrusion. Following the storm, indus noted the treated southbound section of Granite Street dried much faster than the untreated northbound section. This is an important distinction as moisture in pavement, especially in a freeze-thaw environment like the Northeast, leads to accelerated deterioration.

These applications and case study will continue every three years until the need for a more costly intervention treatment arises. The longer indus can successfully reapply fog seal while achieving exceptional performance, the better for making the case for rejuvenating fog seals as a cost-effective method for maintaining roadways in the region.

Edited by Pavement Preservation Journal *from material submitted by Ergon Asphalt & Emulsions.*

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Midwest PPP Meets in Omaha, Advances Pavement Preservation in the Heartland

BY PAUL NOLAN

The 2025 Midwestern Pavement Preservation Partnership (MPPP) annual meeting was held in Omaha Sept. 16–18, and brought together pavement professionals from state and provincial agencies, contractors, consultants, suppliers, academia, and federal officials from across central North America.

Organized by the National Center for Pavement Preservation (NCPP), which is supported in part by FP² Inc., the event served as a vital American Association of State Highway & Transportation Officials (AASHTO) regional forum for sharing innovations in research, design, specifications, materials, and construction practices to promote sustainable pavement preservation. It's one of four such PPPs in North America which meet annually.

PRESENTATION HIGHLIGHTS

The three-day program kicked off on Tuesday afternoon with welcoming remarks from MPPP chair **Phil Clements** of the South Dakota DOT, and Vice Chair **Stephanie Weigel** of the North Dakota DOT, setting a collaborative tone. Nebraska DOT's **Mick Syslo** provided a warm local welcome, followed by an NCPP/AASHTO update from **Bouzid Choubane**.

Technical sessions delved into cutting-edge topics, including:

- **Lightweight Chip Seals** in Nebraska: **Edgar de Leon Izeppi** from Virginia Tech and **Robert Rea** from Nebraska DOT explored innovative sealing techniques for improved performance.
- **Recycled Rubber in Preservation Fixes**: **Rob Green** from Michigan DOT and **Lance Malburg** from Dickinson County, Mich., discussed sustainable applications of recycled materials in repairs.
- **Pavement Management** and Performance Improvements: **Dan Weymouth** from Deighton presented on advanced management strategies, while **Larry Scofield** from the International Grooving & Grinding Association reviewed concrete pavement repair toolkits.
- **Environmental Benefits** of Pavement Preservation: **Dr. Adriana Vargas** from the National Center for Asphalt Technology (NCAT) highlighted the eco-friendly impacts of preservation practices.
- **Chip Seal Embedment** and **Crowd-Sourcing Data**: Additional sessions by Vargas and **Bjorn Zachrisson** from Nira Dynamics addressed embedment optimization and innovative data collection methods.

PANEL DISCUSSIONS

Panel discussions added depth, with one on re-establishing joints in composite pavement overlays moderated by **Rob Green** and featuring **Clements, Blair Heptig** from Kansas DOT, and **Chad Strohl** from Crafco. Another, moderated by **Scott Metcalf** from Ergon, focused on reclaimed asphalt pavement (RAP) in preservation treatments with panelists from Illinois DOT, Minnesota DOT, NCPP, and Applied Pavement Technology (APTech). The agenda also included task force updates on data, research, webinars, and roundtables, culminating in breakout sessions for targeted problem-solving.

The event wrapped up on Thursday with a *PG3 Pooled Fund* update from **Joel Ulring** of Minnesota DOT and closing remarks from **Clements** and **Andre Dupuis** from Manitoba Transportation.

A pivotal moment occurred during Thursday's MPPP business meeting, where the partnership acknowledged the outstanding leadership of outgoing chair Phil Clements from South Dakota DOT. Clements, elected in September 2022, guided the MPPP through key initiatives, including enhanced research coordination and educational outreach, leaving a lasting impact on Midwestern pavement practices.

Assuming the reins as the new chair is **Stephanie Weigel** from North Dakota DOT, previously serving as vice chair since September 2023. Her expertise in transportation infrastructure positions her perfectly to lead the partnership forward, building on recent successes while tackling emerging challenges like climate-resilient designs and data-driven decision-making.

The success of the 2025 MPPP annual meeting would not have been possible without the generous support of our sponsors and exhibitors, whose contributions enriched the program and provided valuable resources. Special recognition goes to our Platinum Plus Sponsors – **Crafco, Poreshield**, and **Evergreen Roadworks** – for their spotlight presentations and unwavering commitment to fostering industry dialogue.

Full house for technical presentations at MPPP meeting hears Clint Bryant, regional highway maintenance director at Indiana DOT

Nolan is materials and road research engineering specialist, MnDOT.

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Plan to Attend a Regional Pavement Preservation Partnership Meeting this Year

BY TODD SHIELDS, P.E.

The National Center for Pavement Preservation has announced the 2026 schedule for the regional pavement preservation partnership (PPP) meetings.

The PPPs provide a regional forum of pavement professionals from state and local Agencies, provincial transport agencies, contractors, suppliers, academia, and federal government officials, all working together to take advantage of the synergy of sharing information and identifying common issues for further investigation.

They provide a forum to share and publicize information describing improvements in research, design, specifications, materials and construction practices, and to promote the benefits of pavement preservation and recycling through education and application on a regional basis.

While some states have developed preventive preservation and recycling programs as a key step in preserving their pavement investment and extending their serviceability with cost effective preservation treatments, other states could benefit from a sharing of the knowledge gained from this experience. Such a partnership develops sound preservation practices by a beneficial sharing of information on treatment designs, construction practices, performance measures, and research needs.

Kicking of the 2026 schedule will be the **Southeast Pavement Preservation Partnership**. This year's meeting will be held in Asheville, N.C. April 7 to 9. As the area continues to recover from the devastating flooding from hurricane Helene in September 2024, the theme of the conference fittingly will be *Preservation, Risk and Resiliency.*

Next up, the Massachusetts DOT will host **the Northeast Pavement Preservation Partnership** in Springfield. The conference will be May 5 to 7. This year's theme will be *Preservation for Everyone*. The PG3 TAP will meet at the conclusion of the conference on the afternoon of May 7, at which point the group will have participated in all four regional partnership meetings.

The fall meetings will begin in Vancouver, Wash., where the **Rocky Mountain West Pavement Preservation Partnership** will meet Sept. 22 to 24.

The **Midwest Pavement Preservation Partnership** will conclude the year in Des Moines, Iowa from Oct. 20 to 22.

More information, including registration links as they open will be posted to NCPP's website: https://www.pavementpreservation.org/upcoming-meetings/. You may access the web page using the adjacent QR code.

Shields is transportation asset preservation engineer, NCPP


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TREAT Robots, Trailers Introduce Students to Chip, Slurry Treatments

Two trailers and two robotic mini-applicators – dubbed the TREAT Mobile Lab – have been touring the country, introducing civil engineering students and other professionals to emulsion-based surface treatments, their composition, testing, and placement.

TREAT stands for Teaching and Researching Emulsified Asphalts and Treatments, and is a unique approach to popularizing pavement emulsion surfacings.

Developed under the advisement of Dr. Andrew Braham, Ph.D., University of Arkansas, and funded by the U.S. Army Corps of Engineers, the TREAT Mobile Lab is based on a small, lab-scale emulsion production system (colloid mill), and two small robots capable of placing mini (~3 × 7-ft.) chip seal and slurry treatments for research and demonstration purposes.

The mission of TREAT is to enhance knowledge of asphalt emulsion and asphalt emulsion based treatments to agency employees, consultants, contractors, students, and others who are interested in learning more about extending their pavement life while reducing costs.

This is achieved by providing foundational knowledge in a classroom setting and then moving to the field for live demonstrations.

WHAT TREAT DOES

The vision of TREAT is to encourage road owners to treat roads that are in good condition, by applying pavement preservation concepts to their roadway network. By taking care of roads in good condition, the cost of maintaining a road over time will decrease and the life of the road will increase.

The activities during a typical TREAT Day of Training include:

- Define pavement preservation and asphalt emulsions
- Describe the uses of asphalt emulsion in maintenance and rehabilitation treatments
- Identify the sequence of constructing high-quality chip seals and slurry surfacing
- List key concepts of specifying and inspecting asphalt emulsion maintenance treatments, and
- Quantify the economic, environmental, and safety benefits of pavement preservation.

The TREAT Mobile Lab consists of two trailers. Both trailers can be run off shore power or generator power, as both trailers have a 12 kW generator available if shore power is not an option.

The first trailer is a 32 × 8.5-ft. gooseneck trailer, and is the laboratory trailer. It contains a Bergkamp in-line, laboratory-scale emulsion mill, two small Despatch ovens, a sink, a station to manufacture soap solution for asphalt emulsions, and plenty of counter and storage space.

The second trailer is a 16 × 7-ft. bumper trailer, and is the storage trailer. It contains two large Despatch ovens, additional counter and storage space, and houses the two robot mini-applicators.

ROBOT APPLICATORS

The TREAT Mobile Lab has two robotic mini-applicators, one for an asphalt emulsion-based spray application, and the second for an asphalt emulsion mix application.

The spray mini-applicator has a 3-gal tank and a 4-ft-wide spray bar. Emulsion can be sprayed at three different application rates: 0.35, 0.42, 0.50 gal/sy, and covers approximately 3 × 7 ft. This allows for appropriate application rates depending on the existing surface of the roadway. This applicator can place the asphalt emulsion for fog seals, rejuvenating fog seals, or chip seals.

The mix mini-applicator has a small slurry box that is pulled by a powertrain. Emulsion and aggregate are mixed in a bucket-mixer and poured into the slurry box as it is being pulled. The resulting section is approximately 2 × 6 ft. This applicator can place either slurry seal or micro surfacing.

Dr. Andrew Braham leads classroom discussion prior to field demonstration

Robot mini-applicator sprays asphalt emulsion during outdoor demo

FIRST APPLICATION: U.S. ARMY CORPS OF ENGINEERS

On June 10, 2024, Dr. Braham and crew traveled from Fayetteville, Ark., to Vicksburg, Miss., to the U.S. Army Engineer Research and Development Center (ERDC) for the first live demonstration of the TREAT Mobile Lab.

On June 11, the team mobilized at ERDC in Vicksburg and placed one slurry test section. The slurry section, a Type II slurry with CQS-1H emulsion, was approximately 2 × 6 ft. Based on the placement, not enough water was added before the asphalt emulsion, causing slight segregation and poor mixing of the asphalt emulsion and aggregate. In addition, one chip seal section was placed using a CRS-1P and single size stone, approximately 3/8-in. aggregate.

The target application rate was 0.42 gal/sy, and the final section was approximately 3 × 7 ft. The emulsion was evenly applied both in the longitudinal and transverse direction. Finally, approximately one-half gallon of SS-1 asphalt emulsion was manufactured using a PG 64-22 base.

On the next day, June 12, approximately 35 ERDC employees came to watch demonstrations of slurry seal placement, chip seal placement, and asphalt emulsion manufacturing.

The slurry seal application was successful, with more water added to the aggregate during mixing. In addition, the chip seal placement was again successful. The same materials and test section sizes as the day before were used, assisting comparisons. Finally, approximately one-half gallon of SS-1 asphalt emulsion was manufactured using a PG 64-22 base. On June 13, the team cleaned up the repacked the trailers to return to Fayetteville.

DAY OF TRAINING

On May 13, 2025, Braham and crew hosted a soft-rollout for a TREAT Day of Training (DoT) at the University of Arkansas.

Twenty-three professionals attended the full DoT, while approximately 45 professionals attended the live demonstrations only. The professionals included representatives from the offices of Sen. John Boozman (R-Ark.) and Rep. Steve Womack (R-Ark.), 10 representatives from Walmart, plus University of Arkansas employees, state and local agency employees, material suppliers, contractors, and vendors.

The DoT started at 8:30 a.m. with an overview and introductions around the room. Next, there were classroom sessions, an introduction to pavement preservation, an introduction to asphalt emulsions, and an overview on how asphalt emulsion is used in maintenance and rehabilitation.

That was followed by a live demonstration of asphalt emulsion manufacturing. After a trailer walk-through, a soap solution was prepared for a CRS-2 emulsion, and the CRS-2 emulsion was manufactured on the lab mill in the trailer.

After manufacture, the emulsion was poured into cups with tongue depressors that were distributed to the audience so they could get hands-on experience with handling an asphalt emulsion and exploring its viscosity, temperature, and consistency.

After a session on asphalt emulsion quality control and testing, and lunch,

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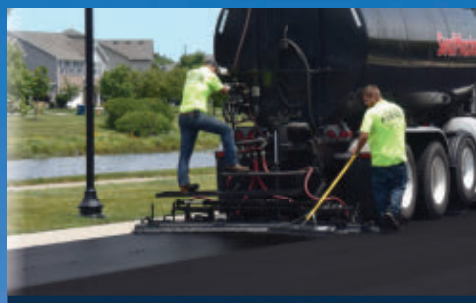

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During afternoon of Day of Training, registrants get out of classroom and see asphalt emulsion surfacings placed in real time

specifications and inspection were covered in the classroom. After a break, the audience moved outside again for the live chip seal and slurry seal demonstrations.

The day before, a slurry seal and chip seal section had been placed, so the audience could see the treatments immediately after placement, and 24 hours after placement. As in "real life," when placed, the sections are chocolate brown-colored, but over time cure to black.

The chip seals leveraged a CRS-2 emulsion with a local 3/8-in. aggregate chip, and the slurry seals were a CQS-1H with a local fine aggregate. The CRS-2 and CQS-1H emulsions used in the four sections were manufactured in the previous week at the University of Arkansas.

DEMOS AT BERGKAMP, O.U. AND AEMA'S LEAP

The following Aug 12-13, 2025, Dr. Braham visited Bergkamp and demonstrated the TREAT Mobile Lab to an audience of over 85 local city and state agencies as well as Bergkamp employees.

Braham provided a brief classroom instruction and discussion on pavement preservation and asphalt emulsion surface treatments. Dr. Braham's team then provided an asphalt emulsion manufacturing demonstration using the TREAT Mobile Lab.

The team demonstrated application of two different types of emulsions on Bergkamp's Emulsion Drive, with their remote controlled slurry and spray applicators. Employees and guests were also able to tour the Mobile Lab, which Bergkamp constructed at its Salina facility and delivered to the University of Arkansas in March 2024.

Then, on Oct. 31, a contingent from the University of Oklahoma visited the University of Arkansas in Fayetteville for a TREAT Research Day. Three mix treatments were placed, all ISSA Type III gradation: CSS-1P emulsion, granite agg; CSS-1P emulsion, mine chat agg; and proprietary clear emulsion, mine chat agg.

Two additional mix treatments were placed, both ISSA Type II gradation with limestone agg. They were CQS-1H emulsion, and 50 percent CQS-1H emulsion and 50 percent CSS-1 emulsion.

These sections were placed on a road that will experience extremely low traffic volumes, but the surface showed no distresses and only slight oxidation. Over time, performance data will be collected on these five sections.

Finally, AEMA's *Leadership Education for Asphalt Preservation* (LEAP) program visited the University of Arkansas Nov. 4-5, allowing for discussions on all things asphalt emulsion between the professionals and graduate students, and demonstrations of the TREAT Mobile Lab. "It was a fantastic couple of days and enjoyed by all," Braham said.

Edited by Pavement Preservation Journal *from industry sources*

BERGKAMP INC. TO HOST JULY TREAT DEMO

This summer, Bergkamp will host a TREAT Day of Training July 28-30. This three-day training will include a mixture of classroom teaching and live demonstrations designed to enhance knowledge of asphalt emulsion and emulsion based treatments.

Located in Salina, Kan., Bergkamp designs and manufactures micro surfacing equipment, pothole patching equipment, and cold mix and laboratory equipment. Classroom sessions will cover pavement preservation, asphalt emulsions, maintenance and rehabilitation treatments, construction best practices, and specifying and inspection treatments.

Also included will be the live, hands-on demonstration showing asphalt emulsion manufacturing, testing, spraying, and mixing, plus a tour of Bergkamp's manufacturing facility.

This training is designed for engineers, inspectors, agency employees, elected officials, consultants, and other decision makers. For more information visit www.bergkamp.com, or call (785) 825-1375.

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Network Gaining or Losing Ground? *Remaining Service Life* Will Tell You

BY LINDSAY MATUSH

Every roadway agency faces the same fundamental challenge: needs consistently exceed available resources. Pavement networks age every day, while budgets, staffing and political capital remain limited. Each year, agency leaders must decide how to allocate scarce dollars across competing needs – often under pressure from elected officials, stakeholders, and taxpayers who expect visible results.

These decisions aren't simple. Should an agency focus on the worst roads in the network, even if that means addressing only a small percentage of total lane-miles?

Or should it invest more in preservation and rehabilitation strategies that keep good roads good, extend service life, and improve conditions across a larger share of the network?

Treatment costs, expected life extension, traffic volumes, and existing pavement condition all influence these tradeoffs, making it difficult to evaluate whether a proposed annual program is truly helping the network – or quietly allowing it to fall behind.

This is where the *Remaining Service Life* (RSL) becomes a powerful management tool.

WHAT IS REMAINING SERVICE LIFE?

Remaining Service Life is a network-level indicator that answers a simple but critical question:

Is our annual treatment program adding more life to the network than the network loses each year?

The concept was formalized by the Federal Highway Administration (FHWA) and the National Center for Pavement Preservation (NCPP) as part of their *Quick Check of Highway Network Health* framework, designed to help agencies evaluate whether their investment strategies are sufficient to maintain or improve overall pavement condition. (The original publication is authored by Jim Sorenson and Larry Galehouse and available on RoadResource.org).

RSL shifts the conversation from individual projects to system performance, giving agency leadership a clear, defensible way to understand the long-term implications of their decisions.

CORE RSL CALCULATION

The RSL concept starts with a simple reality: every road in your network ages by one year, every year.

If an agency manages 500 lane-miles, the network loses: 500 lane-miles × 1 year = 500 "mile-years" of service life annually.

This loss occurs regardless of treatment plans. To merely maintain the status quo, an agency's annual program must add at least 500 mile-years of life back into the system. To improve overall network condition, it must add more than that. If it adds less, deterioration is inevitable.

Life added by your treatment plan can be easily calculated, but remember to start simple, then go deeper.

RSL does not replace comprehensive pavement management. Many additional factors – such as traffic, availability of contractors and materials, safety, climate, and cost must also be considered. However, RSL is an ideal starting point as it's simple, intuitive and powerful.

Calculating the life added to the network is straightforward:

1) List each treatment planned for the year
2) Identify how many miles will receive each treatment
3) Multiply those miles by the expected life extension of that treatment, and
4) Sum the results across all treatments.

For example, treating 10 miles with a treatment that adds 15 years of life contributes 150 mile-years. Treating 60 miles with a treatment that adds three years contributes 180 mile-years.

Together, those treatments add 330 mile-years of life. In a 500-mile network, that program would fall short of the annual loss and contribute to long-term decline.

CALCULATOR AVAILABLE ONLINE

This approach – outlined in detail on RoadResource.org's Remaining Service Life Calculator – allows agencies to quickly determine whether their annual program results in a network gain or a network deficit, without requiring complex modeling or advanced software.

One of the most valuable insights from RSL analysis is that how money is spent matters more than how much is spent.

On RoadResource.org, pavement managers can explore an example comparing two agencies that spent the same annual budget – but made different treatment choices. One agency's plan added more life than the network lost, resulting in steady improvement. The other, despite equal spending, failed to offset annual deterioration and experienced ongoing decline. This side-by-side comparison makes the consequences of treatment strategy unmistakably clear.

Beyond internal planning, RSL is an effective way to communicate with elected officials and taxpayers. It provides a transparent explanation of why certain treatments are selected – and clearly demonstrates how changes impact overall network health, not just individual roads.

See firsthand how Remaining Service Life can help you choose treatment plans that allow their networks not just to survive – but to gain ground. Agencies may explore these free resources on Roadresource.org by utilizing the adjacent QR code.

Matush is CEO of Vario Consulting, manager of the essential RoadResource.org for the Pavement Preservation & Recycling Alliance (PPRA)

PG3: North Carolina, Delaware Highlights

BY TODD SHIELDS, P.E.

The *National Partnership to Improve the Quality of Pavement Preservation Treatment Construction and Data Collection Practices*, commonly known as PG3, has wrapped up its second year.

But before then, two additional projects were completed at the end of the 2025 construction season. This brought the total to five completed projects in 2025. North Carolina DOT did a spray applied asphalt rejuvenator in late September, and the Delaware DOT did a rut fill micro surfacing in October.

The project is a national pooled fund, which recently welcomed the Arkansas DOT as a new member, bringing the total number of participating states up to 20. The project provides technical assistance with specifications, training, and on-site expertise during project construction. More information on PG3 can be found on the project's website: https://pg3study.org/

NORTH CAROLINA APPLICATION

In September 2025, North Carolina DOT treated seven roads in Mecklenburg County with a spray-applied asphalt rejuvenator. The rejuvenator introduces maltenes, the light oils and resins that give asphalt its flexibility, into an existing pavement. This treatment can extend the life of asphalt pavements by multiple years, at a minimal cost. **Pavement Technology, Inc.** won the bid for this contract that totaled 2.18 miles and performed the work over three days in late September.

The maltene replacement technology was applied at a rate of 0.04 to 0.07 gal/sy, with the variance due to varying surface densities of the different roads. A light coating (1–2 lb.) of aggregate was applied to the roads after product curing. This aggregate was removed from the road within 24 hours.

Hamilton Road, a suburban arterial route in southern Mecklenburg County, was chosen from the seven roads in the contract for the PG3 study section. A 500-ft. test cell identified and a 500-ft. Control cell was left untreated within the project limits of Hamilton Road.

These two sections will be monitored closely as a part of the project, to understand the long-term benefits of asphalt rejuvenation. Hamilton Road had just been resurfaced in May 2025, so this project is demonstrating application of a preservation treatment immediately to new HMA. Because of the density of the new pavement, the application rate of the rejuvenator had to be lowered in the wheel paths.

Garrett Lee, P.E., NC DOT's pavement preservation engineer and PG3 project lead, said "NC DOT has more lane miles than any state in the country besides Texas, so we are always exploring ways to expand our pavement preservation toolbox.

"This project, utilizing a maltene replacement asphalt rejuvenator, adds a potentially

Delaware micro surfacing intended to stand up to Amish surrey rigs and horse hooves

vital tool to our arsenal," Lee said. "This was the most proactive pavement preservation project to date in North Carolina. With this project, we didn't wait for deterioration to begin; we took preemptive action to delay processing like oxidation, raveling and cracking."

DELAWARE MICRO SURFACING

The Delaware DOT's (DelDOT) project is on SR 8 in Kent County, located in the center of the state. The project travels through Delaware's only Amish community. The roads in this area see constant stress from the horses that pull Amish buggies, particularly their shoes, which chip away the roadway material and create deep ruts, which can make travel difficult and hold water causing further hazards during weather events.

After having areas of rutting patched that were greater than ½ in., the state brought in **Asphalt Paving Systems** (APS) to construct a multi-phased operation of micro surfacing.

The project was completed in October 2025, and had to work around a substantial nor'easter rain event. The first stage was a single rut fill to address the buggy rutting. This was followed by a standard application of surface course across the shoulder width.

This location had rutting in the shoulders, and the project did not address any mainline pavement. However, if successful in addressing the ruts, this treatment could be applied to many roads traveled by the Amish community where no shoulder is present, and cars must deal with the rutting in the travel lanes.

DelDOT has been striving to distinguish the most cost-effect and long-lasting treatment to battle the ruts caused by high volume buggy areas. The state has had some initial success using HMA with PG 88-22 on buggy heavy roads, but the expense can be prohibitive. Mike Beulah of DelDOT's pavement management section and the PG3 lead sums up the desired outcome of this effort:

"Through our collaborative efforts between our maintenance folks and pavement management with this PG3 study," he said, "we are hoping that this treatment will be a good compromise between cost and endurance to make our roads safer, while adding another tool to our preservation toolbox."

In North Carolina, application of rejuvenator with lower application rate in wheelpaths

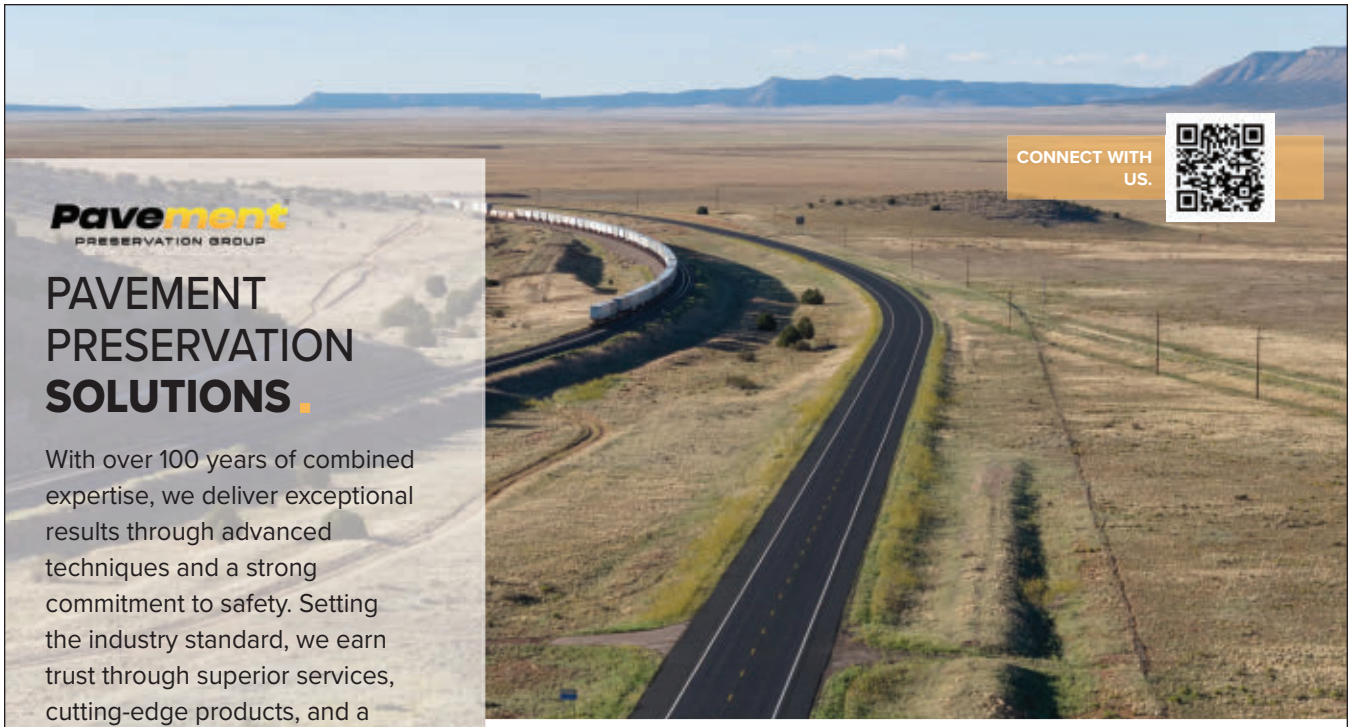
In the Tarheel State, a light application of fine aggregate is applied immediately after treatment

Looking ahead to 2026, five states have nominated projects to be constructed early in the season. **Alabama DOT** will construct a scrub cape seal. Both **Alaska DOT** and **Washington State DOT** will do treatments to address studded tire damaged pavements. Alaska will do a thin HMA with special aggregate, and Washington State DOT will do a two course chip seal.

The next in person technical advisory panel meeting will be held May 7, 2026 in conjunction with the Northeast Pavement Preservation Partnership Meeting in Springfield, Mass.

More information on joining the pooled fund may be found on the Transportation Pooled Fund website: https://www.pooledfund.org/Details/Study/754.

Shields is transportation asset preservation engineer, NCPP



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Bio-Binders as Modifiers in CRS Emulsions

Editor's Note: *This is the 34th of a series of profiles of civil engineering students who are undertaking pavement preservation and recycling as a course of study. These students bring their own perspective of why a young civil engineer would pursue pavement preservation and recycling study. This issue, we profile* **Rasool Fazeli**, *graduate research assistant at University of Arkansas. Thanks to* ***Andrew Braham, P.E.,*** *University of Arkansas, for his assistance with this article.*

WHAT GOT YOU INTERESTED IN PAVEMENT PRESERVATION?

My interest in pavement preservation began through hands-on industry experience. While pursuing my master's degree in road construction in my home country, I joined a pioneering team that implemented pavement preservation applications nationwide for the first time.

My responsibilities as an R&D team member extended across the entire process, from laboratory testing and specification development, to emulsion manufacturing, quality control, and field implementation.

That experience exposed me to the technical and logistical complexity behind preservation treatments. I became particularly interested in asphalt emulsions, including different types of emulsions and how small changes in formulation can significantly affect the outcome. This curiosity expanded into mixture design for applications such as slurry seal and micro-surfacing, where material adaptability, construction timing, and field execution must align precisely.

Rasool Fazeli in the lab

HOW IS YOUR RESEARCH RELATED TO PAVEMENT PRESERVATION?

I am currently a core member of the research team focused on asphalt emulsions and pavement preservation applications at the University of Arkansas. I am fortunate to work in one of the most advanced pavement preservation laboratories in the country, equipped with in-line mills for asphalt emulsion production, and robotic mini-applicators capable of placing spray and mix applications (see related article in this issue, pp 24–27).

My research focuses on the use of bio-binders as partial replacements for petroleum asphalt binder in emulsions. Specifically, I investigate their use as modifiers in cationic rapid-set (CRS) emulsions, evaluating whether they can match or enhance conventional chip seal application performance.

After manufacturing these innovative emulsions in the laboratory, I conduct CRS emulsion characterization tests to ensure they meet specification requirements. The next step is to perform laboratory performance tests, such as the Sweep Test and the Vialit Test, to evaluate how the modifiers influence the bond between the aggregate and the modified binder.

Finally, I apply the emulsions in chip seal sections using robotic mini-applicators and assess their short- and long-term performance relative to conventional treatments. This research is important because it provides agencies with scientifically validated guidance on whether bio-based alternatives can realistically maintain or enhance conventional petroleum-based applications' performance.

HOW HAS YOUR PERSPECTIVE ON ROAD INFRASTRUCTURE CHANGED SINCE BEGINNING YOUR RESEARCH?

My research has fundamentally reshaped my perspective on road infrastructure. Working at the University of Arkansas gave me the confidence to design and produce emulsions while gaining a deep understanding of their physical and chemical characteristics. More importantly, it showed me that preservation strategies can push infrastructure toward more environmentally friendly, cost-effective, and longer-lasting solutions.

While most professionals recognize the value of pavement preservation, I believe there remains a disconnect between research, field decision-making, and agency practices. Optimizing this gap is critical. Many U.S. roads remain in poor condition, and wider adoption of well-timed preservation treatments could significantly improve network performance, safety, and life-cycle cost efficiency.

DO YOU PLAN TO CONTINUE IN PAVEMENT PRESERVATION AFTER GRADUATION?

Since joining the University of Arkansas, my interest in pavement preservation has only grown. I spend most of my time working with asphalt emulsions and preservation applications, and each project reinforces how much remains to be explored in this field.

Thanks to my advisor, Professor Braham, I have had opportunities to engage with industry professionals and better understand real-world needs. I intend to continue in pavement preservation after graduation, contributing to innovations that improve serviceability, reduce life-cycle costs, and enhance user satisfaction. I see this field as both technically challenging and socially impactful, and I am committed to being part of its future.

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Dustrol Parent Acquires Cutler Repaving

Recycling Enterprises, Inc. (REI) of Towanda, Kan., announced the acquisition of Cutler Repaving, Inc., a Lawrence, Kan.–based hot in-place recycling (HIR) contractor, effective Jan. 12, 2026.

This transaction effectively places Cutler Repaving and FP[2] supporter Dustrol, Inc., a Towanda, Kan.,. hot in-place recycling and cold milling contractor under the REI umbrella, creating the world's largest hot in-place recycling contractor.

This acquisition strategically provides both companies with greater opportunities to serve their individual customers in their geographical markets.

Dustrol serves DOT and county customers in Oklahoma, Kansas, Texas, Minnesota, Iowa, Wisconsin, Tennessee, Arkansas, New Mexico, Wyoming, Utah, Nebraska, North and South Dakota, Colorado, and Montana.

Cutler serves city, county and state DOTs in Florida, South Carolina, Kansas, New Mexico, Texas, Arizona, Colorado, and Utah.

Both companies will continue operations under the same brands from their current locations in Towanda and Lawrence Kansas.

NATIONAL WORK ZONE AWARENESS WEEK OBSERVED APRIL 20-24

National Work Zone Awareness Week (NWZAW) will be observed April 20–24 with this year's theme of *Safe Actions Save Lives*.

NWZAW has been observed for more than 20 years and was launched as a public awareness campaign to help everyone understand they play a role in keeping motorists and roadway workers safe. This year's national kickoff event will be hosted by the Connecticut Department of Transportation (CTDOT).

NWZAW got its start in 1997 when a group of Virginia DOT employees in southwestern Virginia wanted to dedicate a week to raise awareness of work zone safety among all district employees ahead of the busy roadway work season.

The next year, VDOT presented the idea for a national awareness campaign to the American Traffic Safety Services Association (ATSSA), which, in turn, approached the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO). The groups finalized plans and launched the first national kickoff event in 2000.

Statistics from the National Work Zone Safety Information Clearinghouse show there were 818 fatal crashes in work zones resulting in 899 deaths in 2023. In addition, 176 pedestrians were killed in work zones.

Counterintuitively, people killed in work zones are motorists, passengers, and pedestrians. Those statistics demonstrate the importance of work zone safety and participating in NWZAW to spread the message that *everyone* plays a role in getting roadway workers home safely.

As part of NWZAW, everyone is encouraged to participate in **Go Orange Day** on April 22 and to observe a moment of silence on April 24 for people killed in work zone incidents. On Go Orange Day individuals are encouraged to wear orange

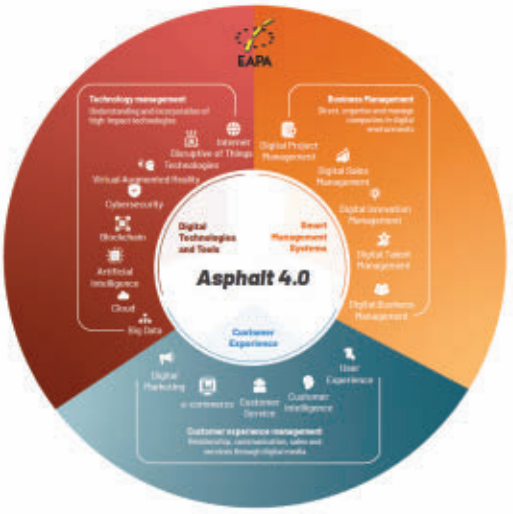
State departments of transportation, federal agencies, and other organizations will be participating in NWZAW and distributing public service announcements about work zone safety and hosting events to highlight the issue.

In addition to ATSSA, NCDOT, FHWA, and AASHTO, NWZAW partners now include the Federal Motor Carrier Safety Administration (FMCSA), National Highway Traffic Safety Administration (NHTSA), Occupational Safety and Health Administration (OSHA), the Maryland State Highway Administration (MSHA), Connecticut Department of Transportation (CTDOT), Associated General Contractors (AGC), and American Road & Transportation Builders (ARTBA), plus support from many people and organizations touched by work zone safety.

To learn more about NWZAW, visit nwzaw.org.

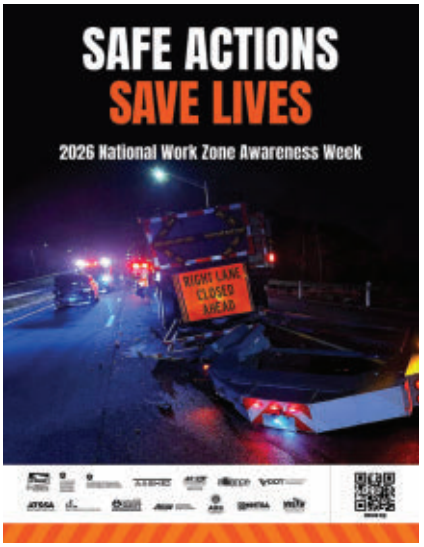
EUROPEAN ASPHALT PAVEMENT ASSOCIATION PROMOTES *ASPHALT 4.0*

Asphalt 4.0 is a concept directly linked to the wider concept of Industry 4.0, referring



to a series of smart and autonomous systems, a system of systems fueled by big data, machine learning, artificial intelligence, block chain, internet of things (IoT), etc., with capacity to significantly push forward the efficiency, productivity, quality, reliability, and sustainability of a given industrial sector.

The application of these technologies to the asphalt paving sector is known as Asphalt 4.0 and involves the use of digital tools to automate, monitor, and improve the way in which organizations develop conventional activities, such as management of production of mixtures in asphalt plants, transport/supply or installation (e.g. placement, compaction, asset management, etc.).



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Using digital technologies in the asphalt paving sector, stakeholders can improve the way in which they develop their activities, obtain greater efficiency of processes and organization, better performance, durability and guarantees of the offered products and services to meet customer requirements and specifications, savings of time and resources, a permanent innovation process, and a totally different way of managing customer satisfaction (customer experience). In addition, it also facilitates and accelerates the transition of the mobility sector towards its new users, such as electric and automated vehicles.

Download your free pdf of EAPA's Asphalt 4.0 at https://eapa.org/asphalt-40/

NEW FDR NCHRP SYNTHESIS AVAILABLE FOR DOWNLOAD

Full-depth reclamation (FDR) is a method to recycle in-place asphalt material for reconstruction and rehabilitation of flexible pavements.

The new *NCHRP Synthesis 657: Full-Depth Reclamation: Current Practices,* from TRB's National Cooperative Highway Research Program, documents practices used by state departments of transportation, including classification of FDR types, site selection, specifications and guidelines for FDR mix design, and test methods to evaluate FDR quality.

The information for this synthesis was gathered through a comprehensive literature review; a survey of the DOTs of the 50 states, Washington, DC, and Puerto Rico; and subsequent interviews with personnel from five states selected for further study. Forty-nine DOTs (47 state DOTs, Washington DC, and Puerto Rico, or 49 of 52) responded and completed the survey, attaining a survey response rate of 94%. After reviewing the literature and detailed survey responses, the project team selected the DOTs of California, Idaho, Minnesota, Vermont, and Virginia for case example interviews.

Download your copy at www.nationalacademies.org/publications/29222.

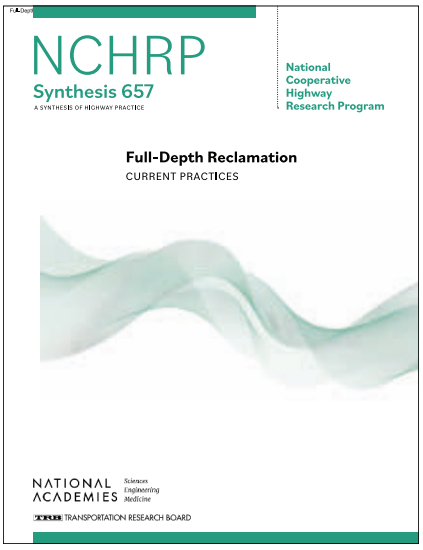
BERGKAMP RAWSON SCREENING PLANT FOR MICRO SURFACING

Bergkamp, a global leader in pavement preservation equipment, has partnered with Jim Rawson, founder of the former

Rawson Manufacturing, to reintroduce a trusted screening plant solution tailored for the micro surfacing industry.

While not a formal acquisition, Bergkamp will bring to market a screening plant designed by Rawson that closely resembles the popular, now-unavailable Rawson model. The move comes in response to contractor demand for a reliable aggregate screening solution – one that's purpose-built for micro surfacing crews and their unique operational needs.

"When we learned that the Rawson screening plant was no longer available, it was clear that the industry had lost a critical piece of equipment," said Scott Bergkamp, CEO of Bergkamp.



The new screening plant is designed to:

- Provide a low screening platform for easy screen changes and proper oversize management
- Deliver a robust, transport-ready frame built for the frequent mobilization required by micro surfacing crews
- Supply ample horsepower to power optional water and emulsion pumps, enabling stockpile filling on-site.

NEXT NPPC CONFERENCE SET FOR SEPTEMBER 2027

The next National Pavement Preservation Conference will take place Aug. 30–Sept. 2, 2027 in Grand Rapids, Mich. We're currently gathering ideas for the technical agenda and would greatly appreciate your input.

If you have a topic you'd like to see covered or a presentation you'd like to propose—or if you simply have suggestions—please use the link below to submit one or more items. Feel free to share the link with others who may be interested.

Survey: https://www.surveymonkey.com/r/YSQFQTM

You can also visit the conference website for updates as more information becomes available:

https://nationalpavement2027.org/

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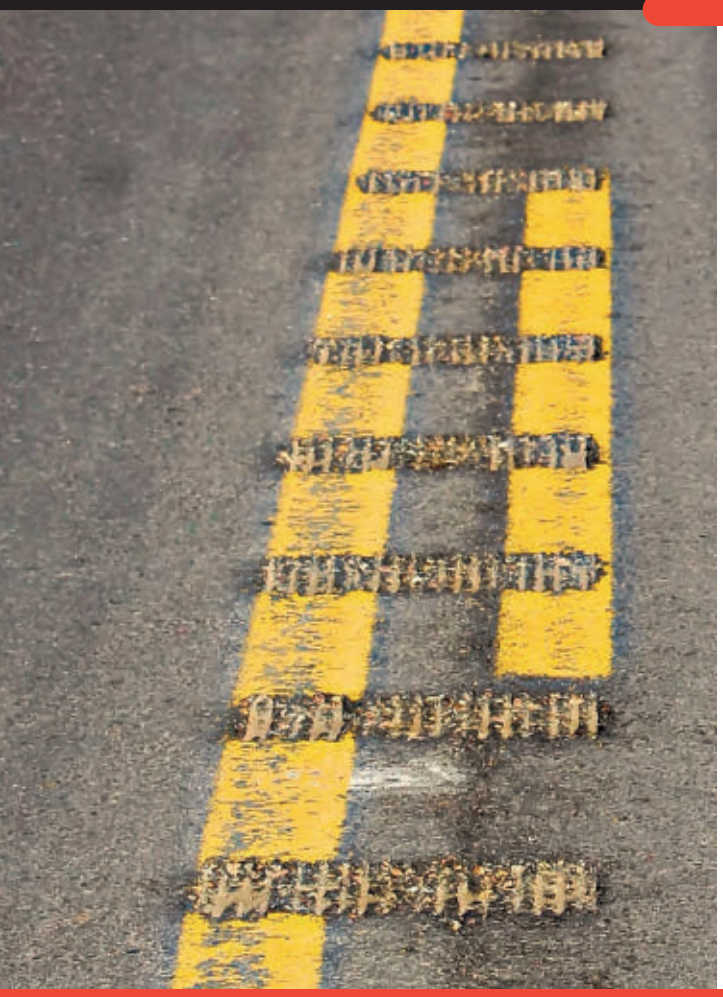

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