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SUMMER 2026

PAVEMENT PRESERVATION JOURNAL

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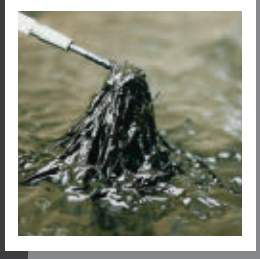

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FP² Inc. is a non-profit trade association organized under the Internal Revenue Code Section 501(c)6, and is supported by the pavement preservation industry, contractors, material suppliers and equipment manufacturers.

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.

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A Safer, Smarter, Better-Funded Future for Pavement Preservation

BY DAVID HENDERSON
President, FP² Inc.

Safety has always been at the heart of pavement preservation, and it's inseparable from how we innovate and how we fund our transportation system.

Every treatment we design, every project we deliver, and every mile we extend is ultimately about protecting people: our workforce, road users, and the communities we serve. As an industry, we must continually reaffirm that safety is not simply a priority, but a core value that guides collective decision making at every level.

MEANINGFUL PROGRESS

We continue to see our members make meaningful progress in advancing safer practices across pavement preservation activities. From ongoing worker training, to the adoption of innovative materials and equipment, safety is increasingly embedded earlier in both product and project development, and reinforced throughout construction.

These efforts are not isolated initiatives; they reflect a growing recognition that pavement preservation strategies can – and must – deliver safety benefits alongside performance and cost efficiency.

Innovation plays a critical role in that progress. Today's pavement preservation toolbox is far more advanced than it was even a decade ago. Innovative products and systems are helping agencies extend pavement life while reducing the frequency and intensity of work zones. High-performance binders, fiber-reinforced treatments, and advanced membranes are enabling smarter decisions and superior outcomes.

Equally important, innovation is improving how work is done. New materials that return traffic faster or require fewer construction steps reduce worker exposure to live traffic. Equipment advancements enhance placement accuracy and consistency, improving both quality and safety.

Digital tools and performance tracking help agencies better understand how treatments perform over time, allowing preservation strategies to be optimal rather than reactive. When paired with sound engineering and field experience, innovation strengthens the case for preservation as a first-choice strategy.

SUSTAINED FUNDING ESSENTIAL

However, safety and innovation cannot advance without support. Sustained, predictable federal funding remains essential to fully realizing the benefits of pavement preservation. With traditional funding streams becoming less reliable – including declining gas tax revenues driven by increased use of non-ICE vehicles and ongoing concerns about the long-term solvency of the Highway Trust Fund – predictable federal funding becomes more essential than ever.

Federal investment provides preservation stakeholders with the confidence to plan multi-year preservation programs, adopt innovative solutions, and invest in workforce development. It also enables the research, testing and education that underpin continuous improvement across our industry.

Pavement preservation has proven to be a cost-effective use of transportation dollars, yet its success depends on consistent funding streams that support proactive maintenance rather than the more expensive options of deferred rehabilitation.

When funding is uncertain, agencies can be forced into short-term decision-making that increases both life-cycle costs and safety risks. When funding is both sufficient and stable, preservation strategies can be deployed at the right time, on the right roads, with the right materials – delivering safer roads and better value for taxpayers.

As federal transportation policy related to the fair cost borne by users of our transportation infrastructure continues to evolve, our collective voice matters, perhaps now more than ever. It's critical that decision makers understand how preservation supports national goals related to safety, asset management, sustainability and economic efficiency. Continued federal support ensures that states and local agencies can implement proven preservation practices, pilot innovative technologies, and maintain the skilled workforce required to deliver results. FP²'s advocacy continues to focus in this area, and your support is both needed and appreciated.

Looking ahead, our challenge – and our opportunity – is to keep safety at the forefront while embracing innovation and advocating for the funding necessary to sustain our progress. By doing so, we strengthen not only our industry, but also the transportation system that millions of Americans rely on every day.

Together, through collaboration, leadership, and continued investment, pavement preservation will remain a cornerstone of a safer, smarter and more resilient roadway network.

Preservation-First Strategy Makes MassDOT Winner of Sorenson Award

The Massachusetts Department of Transportation (MassDOT) is the winner of the 2025 *James B. Sorenson Award for Excellence in Pavement Preservation,* for its dedication to pavement preservation principles over the last two decades.

Recognizing exemplary agency pavement preservation practice, the Sorenson award is presented at the discretion of FP² Inc., usually to municipal or county road agencies, or state departments of transportation.

As an agency, MassDOT is committed to delivering safe, reliable, and sustainable pavement infrastructure. In the past two decades, MassDOT has adopted a preservation-first strategy centered on proactive, data-driven and equitable pavement management.

Through a broad commitment to applying the *Right Treatment, on the Right Road, at the Right Time*, MassDOT strives to ensure every road, in every community, benefits from long-term, high-quality surface maintenance. "By prioritizing preservation and embracing new approaches, we are making a real difference in communities across the state," said Interim Secretary of Transportation and MBTA general manager Phillip Eng.

"There are many ways that we, as FP², can help to advocate for the advancement of pavement preservation and recycling," said FP² Vice President Bobby Betsold at the presentation of the award to MassDOT at this year's Northeast Pavement Preservation Partnership (NEPPP) meeting in Springfield, Mass.

"One the most important and rewarding opportunities we have each year is to recognize the outstanding work of a local, county or state agency with the Sorenson Award," he added. "For over 20 years, MassDOT has proactively collaborated with local and state officials, academia and industry to continuously lead in the implementation of the latest pavement preservation and recycling processes and applications."

DECADES OF PRESERVATION

While MassDOT has been using pavement preservation and recycling treatments for decades, including early uses of micro surfacing and diamond grinding PCC pavements in 1990s, and polymer-modified thin overlays and ultrathin bonded wearing overlays in the early 2000s, the commonwealth formally created its pavement preservation program in 2005 as part of the highway division's Pavement Management Section.

This group, under the direction of former pavement management engineer **Matthew Turo** and current pavement management engineer **Edmund Naras**, has developed into an integral part of the department's overall highway division maintenance plan.

From the start of the program until today, the agency has emphasized the importance of pavement preservation to extend budget dollars and keep good roads good by employing the philosophy of the *Right Treatment, on the Right Road, at the Right Time.*

Over the last 20-plus years, some of the highlights of MassDOT's pavement preservation program have included:

- **Implementation of a centralized** pavement condition database and pavement management system since the early 2000s, providing the basis for informed preservation and maintenance planning
- **Being a founding member** of the Northeast Pavement Preservation Partnership (NEPPP), as well as hosting the first NEPPP meeting in 2006
- **Legislative creation of** the Performance and Asset Management Advisory Council (PAMAC) in 2013, helping increased preservation projects based cost-effectiveness and condition metrics
- **Participation in SHRP2-R26** *Guidelines for the Preservation of High-Traffic Volume Roads* program in 2016 with a 1.4+ million sq yd preservation project including over 10 different treatments
- **Participation in** the FHWA *Every Day Counts* (EDC-4) preservation initiative in 2017, creating pavement preservation guidelines for increasing the implementation of pavement preservation treatments, and

Sorenson Award is presented at NEPPP meeting May 5. From left are Bobby Betsold, FP² vice-president; Brian Kelleher, MassDOT deputy administrator and chief of construction; Cody Holemo, MassDOT pavement preservation engineer; and Eric Thibodeau, NEPPP chair

- **Launch of the** *Municipal Paving Program* in 2021, bringing much needed funding and resources to preserve and maintain state-numbered municipal roadways (see following article).

MassDOT continues to explore more ways to improve its pavement management program and efforts, with pavement preservation and recycling treatments serving as a cornerstone of the successes at the state and local levels.

UTILIZING THE 'TOOLBOX'

MassDOT's continuous commitment to the preservation's mantra of the *Right Treatment, on the Right Pavement, at the Right Time* has been central to its pavement management program. The work of the Pavement Management Section – coupled with the efforts of the PAMAC and EDC-4 Task Force – have resulted in a significant increase in the use of pavement preservation and recycling treatments across the state.

Since the creation of a [Pavement] *Preservation Policy Directive* in 2018, MassDOT has utilized nearly every treatment in the "toolbox," often being one of the first agencies in the region to try new products and applications. Here's a full list of treatments used by the agency in recent years:

- **Crack seal** (including mastics and multiple material types and applications)
- **Fog seals and rejuvenators** (traditional asphalt emulsions, *Gilsonite*, bio-based, and more)
- **Chip seals** (emulsion and hot applied asphalt rubber as both a surface and interlayer)
- **Micro surfacing** (conventional and HiMA, as well as a cape seal over chip seal)
- **Ultrathin bonded overlay** (UTBO: conventional, polymer modified, and asphalt rubber)
- **Hot in-place recycling** (HIR)
- **Cold in-place recycling** (CIR: option for either emulsion or foamed asphalt), and
- **Thin HMA overlays** (wide variety of mix types including dense, gap, and open graded mixes with polymer-modified asphalt, asphalt rubber, high RAP, and rejuvenators, etc.).

In addition to the wide use of these pavement preservation and recycling techniques, the agency also has explored other solutions, such as variations in pavement milling techniques, surface texture applications, void-reducing asphalt membranes, and expanded uses for spray pavers.

On Route 9 in Belchertown, Mass., spray paver is utilized to place a SSC 9.5 polymer mix in one pass

"This recognition reflects the many years of dedication by agency staff, municipal partners, and industry collaborators to keep roads in good condition while maximizing value for the public," said MassDOT Undersecretary of Transportation and State Highway Administrator Jonathan Gulliver.

OVERCOMING FUNDING HURDLES

Like most state and local agencies across the country over the past decade, MassDOT has faced persistent funding challenges in maintaining and preserving the commonwealth's pavement infrastructure. The agency has implemented a combination of innovative funding strategies, targeted programs, and strategic investments to stretch available resources, support municipalities, and improve roadway conditions across the state.

Some of the highlights include:

- **Fair Share Amendment.** First proposed in 2015, this state constitution amendment was approved by Massachusetts voters in 2022 establishing an additional 4 percent surtax on annual income over $1 million, with an annual adjustment for inflation. Funding can only be used for transportation and public education programs, and it has generated over $2.3 billion in its first two years,

On Mass. Route 32 in Hardwick, preserved pavement with asphalt rubberized chip seal as-built (above) and pre-application (below)

with over $1.3 billion going towards transportation.

- **Leveraging Federal Funds.** Numerous funding opportunities leveraged from the American Rescue Plan Act (ARPA) and the Bipartisan Infrastructure Law (BIL, a.k.a. IIJA). Funding from these, including both discretionary and competitive grant programs involving the use of safety, climate resilience, and infrastructure modernization programs, provided a significant increase in the total pavement preservation and maintenance funding across the state.
- **Capital Investment Planning and Budget Re-Allocation.** Recognition of the need for long-term planning and financial stability for roadway funding programs led to a FY 2026-2030 Capital Investment Plan that includes over $900 million for interstate and non-interstate DOT roads, with an emphasis on pavement condition targets and performance-based planning. The 10-year, $8 billion transportation investment plan creates long-term stability using the re-allocation of existing funds without the need for increased taxes.

Together, these programs and funding sources reflect MassDOT's commitment to maintaining a safe, equitable and resilient road network. By combining federal opportunities, state revenue innovations, and targeted municipal support, the agency is better positioned to address pavement needs while building a more sustainable and collaborative infrastructure strategy for the future.

SUPPORT FOR ALL AGENCIES

In addition to maintaining the more than 20,000 lane miles of DOT-owned pavement, MassDOT has also committed strongly to the importance of pavement preservation and recycling at the local level.

This includes investment of money and resources in several key programs for local agencies, as well as creating a centralized grant portal for easy access.

- **Technical Assistance & Training.** State engineers and district state aid staff provide significant technical support and project assistance to local agencies and personnel. The UMass Transportation Center and Baystate Roads program host hundreds of courses for local officials each year, including many focused specifically on pavement preservation and maintenance.
- **Chapter 90 (Ch90) Funding.** This long-standing program provides state funds to local agencies for roads, bridges and infrastructure. An historical funding level of $200 million has increased to $380 million in the last several years through additional allocations based on road miles and the Fair Share Amendment funds. Other funding programs for road maintenance available to local agencies include the rural roads, Complete Streets, small bridges, unpaved roads, culverts, and municipal paving.
- **Municipal Paving Program.** First implemented in 2021 to provide direct state assistance to local agencies for the maintenance of municipally owned state-numbered routes. Applications have included a complete range of preservation and recycling treatments. To date, over $125 million in new funds have been allocated, with over 75 municipalities funded and more than 325 miles of pavement treated.

CROSS-PROGRAM COLLABORATION

Cross-program collaboration allows for increased preservation use within other statewide infrastructure initiatives. This integrated approach not only extends pavement life and lowers life-cycle costs, but also supports broader economic, environmental, and mobility goals.

For example, **bridge preservation** requires coordination between the pavement and bridge groups within the agency. Bundling of pavement and bridge preservation projects reduces mobilization costs, streamlines construction timelines, and limits traffic disruptions. It improves the overall condition of entire stretches of pavement, creating safer roadways with longer life-expectancies.

The **Complete Streets** program utilizes pavement preservation and recycling treatments when completing Complete Streets upgrades, including sidewalk

replacement or extensions, ADA-compliant curb ramps, bike lanes, and road diets. It allows for more cost-effective use of funds to preserve or maintain the roadway pavements while executing Complete Streets projects.

Environmental and recycling programs are supported. Preservation and recycling applications, including extensive use of RAP in HMA mixes, directly align with Massachusetts' aggressive climate and sustainability goals.

Municipal programs integrate with previous-mentioned local agency grant funding sources such as the municipal paving program and rural roads program.

MassDOT's integrated approach to pavement preservation and recycling ensures that each dollar invested maximizes public value. By embedding preservation into other programs – from bridge and economic development to utilities and multimodal access – the agency is delivering longer-lasting infrastructure, reduced construction impacts, and improved coordination across jurisdictions. This strategy reflects MassDOT's commitment to smart infrastructure investment, sustainability, and community-first planning.

COMMUNICATION CRITICAL

Communication and public outreach is key to continued support of programs. MassDOT has taken a multifaceted approach to communicating the value of pavement preservation, recycling and overall roadway maintenance. Through a combination of public outreach, media engagement, technical publications and partnerships, the agency works to build public understanding, municipal buy-in, and political support for proactive infrastructure investment.

Regular press releases and media interviews on funding, programs and projects are utilized. Social media pages explain what's happening, why it's being done, and how it's benefiting the state's roadways. Technical articles, reports and publications are published, including an annual Transportation Asset Management Plan and Five-Year Capital Investment Plan.

Conferences, webinars and trainings are held in coordination with the UMass Transportation Center and Baystate Roads program. The use of a strategic mix of media, outreach and technical communication to highlight the value of pavement preservation and recycling has been critical to MassDOT's successful program.

Through public messaging, social media, funding program announcements and education of local partners, it's steadily shifting the conversation from reactive maintenance to proactive, sustainable asset management, framing pavement preservation not just as a cost-effective option, but also a smart overall investment in roads.

WHO WAS JIM SORENSON?

Jim Sorenson (1949-2009) was senior construction and system preservation engineer, FHWA Office of Asset Management, and he was a great champion of pavement preservation at the national level. He was born in Montana on July 28, 1949, and received a B.S.C.E. in 1976 from Montana State University at Bozeman, where he had worked as an engineering assistant to the city engineer following four years in the Vietnam War.

Mr. Sorenson worked in several FHWA field and headquarters offices, culminating in his position in the Office of Asset Management, where he traveled the country promoting pavement preservation to state and local road agencies, when he was not leading the effort to fund pavement preservation at the national level. There he was responsible for technical assistance, policy development, and research guidance in the areas of construction and maintenance operations, transportation system preservation, asset management, and FHWA's external Quality Management Program.

The pavement preservation industry had no greater friend, and FP^2 honors Jim's memory with the Sorenson Award. Intended to recognize agency pavement preservation, the Sorenson award is usually presented to municipal or county road agencies, or state departments of transportation.

To recognize an agency's preservation program, the Sorenson Award application is open to any level of government. Nominations may be made by the agency or in cooperation with industry or academia. Nominations should include a write up of how the agency gained acceptance and support for its pavement preservation program.

The deadline for entries for the current year is Aug. 1, 2026.

Learn more at https://fp2.org/fp2-awards-programs/sorenson-award/

MassDOT Municipal Paving Program is Model for State-Local Partnerships

BY ED NARAS

Across the United States, municipalities face persistent challenges in maintaining roadway infrastructure in a state of good repair. Limited local revenues, rising construction costs, and competing budget priorities often force difficult tradeoffs, with education, public safety, and other fixed expenses taking precedence over transportation investments. In Massachusetts, these pressures are especially acute for smaller and rural communities responsible for maintaining extensive roadway networks with comparatively limited financial capacity.

Recognizing these realities, state officials and legislators across the commonwealth have advanced a series of targeted grant programs designed to help municipalities address critical transportation infrastructure needs. Among the most effective and widely praised of these initiatives is the **Municipal Paving Program**, a collaborative effort between the Massachusetts Department of Transportation (MassDOT) and local governments to improve municipally owned, state-numbered routes.

Since its inception, the program has delivered tangible results: improved pavement conditions, safer travel, and a strengthened working relationship between the commonwealth and the communities it serves. More than a funding mechanism, the Municipal Paving Program has emerged as a model for cooperative, data-driven infrastructure investment, particularly for small municipalities that historically have struggled to address high-cost roadway needs on their own.

BURDEN FOR LOCAL AGENCIES

Responsibility for roadway maintenance in Massachusetts is distributed among 351 municipalities, several state agencies, and a small number of unaccepted roads. County governments play a minimal role in transportation governance, accounting for only approximately five miles of roadway statewide. Of the commonwealth's roughly 37,000 roadway miles, municipalities own and maintain nearly 30,000 miles.

This locally owned network spans all functional classifications, from local roads to major arterials. Notably, **more than 1,700 miles of state-numbered routes and National Highway System (NHS) roadways are under municipal jurisdiction**, a fact that is often surprising to both residents and policymakers. These roadways frequently carry regional traffic, freight, and commuter volumes disproportionate to the resources of the municipalities responsible for maintaining them.

To manage this extensive network, municipalities rely heavily on Chapter 90, the commonwealth's primary local transportation reimbursement program. Chapter 90 provides formula-based funding for roadway construction, rehabilitation, and related improvements, with allocations based on roadway mileage, population, and employment. For fiscal years 2025 and 2026, annual Chapter 90 funding increased from $200 million to $300 million.

While Chapter 90 remains essential, its formula-based structure creates unavoidable disparities. On a per-mile basis, smaller and rural municipalities often receive only a fraction of the funding available to larger urban centers, even when responsible for maintaining state-numbered routes that serve regional or statewide travel needs. The Municipal Paving Program was created to address this imbalance.

PAVING PROGRAM TO RESCUE

The origins of the Municipal Paving Program can be traced to conversations between elected officials and residents in rural western Massachusetts. During community visits, residents consistently raised concerns about deteriorating pavement conditions and the high cost of needed repairs. Many of the roads in question were

Rubber chip seal placed on Mass Route 32 in Hardwick, Mass.

state-numbered routes, roads residents assumed were maintained by the state.

These discussions revealed a systemic gap between roadway function and funding responsibility. Through collaboration between the legislature and state transportation officials, this gap was addressed in the 2021 Massachusetts Transportation Bond Bill, which established the Municipal Paving Program.

Funded at $25 million annually, the program was designed specifically to improve the condition of municipally owned, state-numbered routes. Unlike competitive grant programs that reward application capacity, the Municipal Paving Program directs resources based on documented need, ensuring that communities with the most significant pavement challenges receive assistance.

Oversight of the program was assigned to MassDOT's Highway Division, where it is administered alongside other municipal assistance initiatives, including *Community Culverts, Complete Streets, Local Bottleneck Reduction, MassTrails, Municipal Small Bridge, Safe Routes to School, Shared Streets and Spaces*, and the *Unpaved Roads Grant Program*. Among these offerings, the Municipal Paving Program stands out for its non-competitive, needs-based structure.

Fiscal Year	Municipality Count	Annual Funding	Annual Centerline Mileage
FY2022	11	$15M	57.1
FY2023	25	$25M	60.5
FY2024	17	$25M	45.5
FY2025	25	$25M	85.0
FY2026	20	$25M	45.0
FY2027	18	$25M	59.6
FY2028	16	$25M	45.6
FY2029	*TBD*	$25M	*TBD*
FY2030	*TBD*	$25M	*TBD*
TOTAL	132+	$215M	398.3+

MassDOT Municipal Paving Program is currently funded through 2030

Micro surfacing is placed on Mass Route 41 in Alford, Mass.

DATA-DRIVEN, NEEDS-BASED

Project selection under the Municipal Paving Program is grounded in objective pavement condition data collected by MassDOT's Pavement Management Team. Using statewide assessments, MassDOT evaluates pavement condition and calculates each municipality's backlog of state-numbered routes in poor condition relative to peer communities within the same MassDOT District.

Municipalities with the highest relative need are selected for funding in the following construction season. This district-based comparison ensures that resources are distributed equitably across the commonwealth while targeting the roadways most in need of improvement.

Once selected, a municipality enters into a Municipal Paving Agreement with MassDOT. The process begins with a kickoff meeting involving municipal officials and MassDOT engineers. These early discussions are critical to establishing a collaborative working relationship and identifying project priorities.

Municipal staff are encouraged to share information on projects already under design, planned utility work, maintenance history, and anticipated constraints. Topics addressed during this phase include ADA compliance, safety considerations, pavement structure, drainage performance, and potential rehabilitation strategies. This cooperative planning process allows projects to be tailored to local conditions while meeting MassDOT standards.

COLLABORATION IN PRACTICE

One to two months after the kickoff meeting, MassDOT engineers typically conduct field visits with municipal Department of Public Works (DPW) staff. These site visits allow project limits to be refined and existing conditions evaluated firsthand.

Many Municipal Paving Projects require work beyond surface treatment alone.

Drainage improvements, culvert replacements, and restoration of roadside swales are common components. Municipal staff and MassDOT engineers work side by side to conduct drainage inspections, pavement coring, and subsurface investigations, ensuring that rehabilitation strategies address underlying issues and maximize pavement life.

Each project receives a treatment tailored to its condition. MassDOT employs a broad toolbox of rehabilitation and preservation techniques, including milling and overlay, full-depth reclamation with emulsified asphalt stabilization, cold and hot in-place recycling, rubber chip seal, micro surfacing, fog sealing, and crack sealing. Selecting the appropriate treatment ensures cost-effective use of funds and long-term performance.

Safety improvements are incorporated in every project. Upgraded lane markings improve visibility and allow for improved bicycle accommodations. Miles of centerline rumble strips have been added to rural communities, reducing the risk of cross-overs. This collaboration has resulted in the installation of rectangular rapid flashing beacons, pedestrian curb ramp upgrades, crosswalks, and other pedestrian safety improvements.

PROJECT DELIVERY

MassDOT performs the majority of engineering work in-house, with district design, construction, and maintenance engineers developing quantities and cost estimates. Because projects are typically confined to the existing municipal right-of-way, survey work and right-of-way acquisition are rarely required.

The program is designed for expedited delivery. Many districts maintain active "various location" contracts that allow construction to begin shortly after project selection. While these contracts may span one to two years, most individual municipal paving projects are completed within a three-month construction window.

Municipal responsibilities are clearly defined. Local permitting, right-of-way coordination, and community outreach remain municipal responsibilities, and the program does not alter roadway ownership or long-term maintenance obligations. In many communities, established working relationships with conservation commissions streamline the permitting process.

The Massachusetts construction industry's enthusiasm and cooperation is vital to the program's success. Each project is handled as a "task" under a larger construction contract and assigned to a contractor who promptly meets with the district office and municipal representatives to coordinate and schedule the work. The program's overall good will has helped establish positive working relationships between municipal representatives, state engineers and the construction community. Once an agreement on scheduling and sequence of work is agreed upon, the contractor is authorized to begin work.

All construction is performed by MassDOT contractors in accordance with MassDOT Standard Specifications. Inspection and quality assurance are provided by MassDOT personnel, including QC-QA testing for all hot mix asphalt placement with performance-based incentives tied to quality outcomes. Construction costs are paid directly by MassDOT, eliminating financial risk for participating municipalities.

SUPPORTING SMALL COMMUNITIES

Municipal response to the program has been overwhelmingly positive, particularly among smaller towns that lack the financial capacity or staffing resources to deliver large paving projects independently. For these communities, the Municipal Paving Program provides not only funding, but also technical expertise, project management, and construction oversight.

Many municipalities contribute substantially to project success through pre-construction coordination. Local DPW crews often replace failed culverts, restore drainage systems, install sidewalks, and coordinate utility repairs in advance of paving. In some cases, construction schedules are adjusted to align with local capital projects, reinforcing the collaborative nature of the program.

These partnerships have proven especially valuable in rural areas, where limited staff and budgets can otherwise delay critical roadway improvements for years.

"The amount of work done through the Municipal Pavement Program would have taken the town's highway budget for the next 10 years," said one local public works director.

PROMOTING PRESERVATION

The Municipal Paving Program is closely aligned with MassDOT's Pavement Management Program, with an **emphasis on preserving newly improved pavements in good condition**. Communities are encouraged to adopt pavement preservation strategies such as crack sealing and surface treatments to extend pavement life and protect investments. With these new road improvements complete, these municipalities can maintain their state of good repair rather than undertake costly rehabilitation.

Rehabilitation remains focused on communities with the highest percentage of deteriorated pavements, the "heavier" treatments including stabilized pavement reclamation, cold-in-place recycling, and thicker asphalt overlays. Where appropriate, MassDOT deliberately has incorporated preservation treatments such as rubber chip seal, micro surfacing, fog sealing, and crack sealing to showcase the long-term benefits of proactively managing pavements.

Since its inception, the program has met its annual spending targets, delivering $15 million in its first year and $25 million annually thereafter. To date, approximately $105 million has been invested to improve 270 miles of roadway, with an additional 128 miles under construction or awarded for completion over the next 28 months. The program is currently funded through 2030, and municipalities across the commonwealth hope it will continue.

The Municipal Paving Program exemplifies how thoughtful policy, data-driven decision-making, and genuine state-local collaboration can address long-standing infrastructure challenges. By aligning funding, expertise, and shared responsibility, the program has improved critical roadways while strengthening partnerships between MassDOT and municipalities of all sizes.

Adapted from a presentation at the May 2025 meeting of the Northeast Pavement Preservation Partnership, in Somerset, N.J. Naras is pavement management engineer, MassDOT


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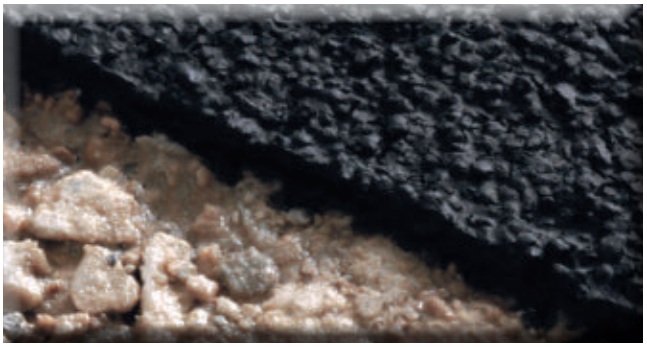

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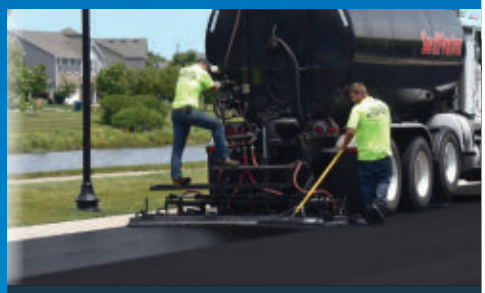

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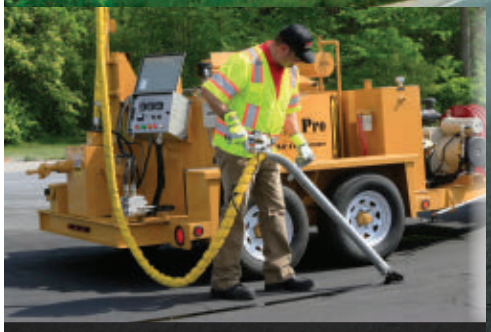

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AEMA, ARRA and ISSA Convene as PPRA in Austin Annual Meet

Early this year Austin hosted hundreds of contractor, supplier, academic, and government agency personnel who came together Feb. 17–20 for the annual meetings of the Asphalt Emulsion Manufacturers Association (AEMA), Asphalt Recycling & Reclaiming Association (ARRA), and International Slurry Surfacing Association (ISSA) as the Pavement Preservation & Recycling Alliance (PPRA). Program chairs **Arlis Kadrmas**, BASF (AEMA), **Mark Stahl**, Wirtgen Group (ARRA), and **Justin Guiles**, Vestal Asphalt (ISSA) collaborated for months to deliver a seamless and impactful event. Please enjoy these photos – including award winners – from the PPRA meetings in Austin.

New ARRA Board of Directors are, from left, Mark Stahl, John Morgan, John Danello, Mat Nayagam, Aaron Hansen, Mark Eiden, Eric Baker, and Bryan Ray. Not pictured: Michael Concannon, Justin Wielinski, and Dan Schellhammer, P.E.

New AEMA Board of Directors are, from left, Cameron Porter, Aaron Walker, Scott Watson, Stormy Brewster, Matt Kennedy, Donna Kwapis, Arlis Kadrmas, Natalia Olenik, and Matt Tremeroli. Not pictured: Robert Huitt and Matt Gutkaiss

New ISSA Board of Directors are, from left, Bryan Darling, Justin Guiles, Jimmy Kendrick, Fabio Mendez, Chris Oakes, David Kiser, Stan Williams, Jamie Wing, Shawn Brost, Jeff Roberts, Matthew Teto, and Matt May. Not pictured: Chris Hollenback

AEMA Leadership Education for Asphalt Preservation (LEAP) graduates for 2025-2026 are, from left, Alan Campos, Kristy Eisentrager, Carlos Lopex, Ellie Kenny, Marty Powell, Ricardo Romero, Jenny Sasser, Matt Kennedy, Jorge Campos, and Kim Gessner (2025-2026 class dean)

Jen Luedtke and Morgan Barnes of CM Services manage registration

AEMA president Matt Kennedy presents Cody Burnett, Starkville, Miss., and Stan Williams, Ergon, with AEMA Past Presidents' Award for Excellence in Asphalt Emulsions for Green Oaks subdivision work

Mrs. Diane Dunn receives ISSA Phil Tarsovich Lifetime Achievement Award from Brad Pearce on behalf of husband Barry Dunn

Opening plenary session draws biggest crowd

Outgoing ISSA president Jeff Roberts passes gavel to incoming president Chris Oakes

At Tex-Mex reception are Ingevity's Aaron Walker and Dave Welborn

AEMA president Matt Kennedy, ARRA president Bryan Ray and ISSA president Jeff Roberts welcome delegates to plenary session

Fun reception at Taco Project in the Hilton Austin hotel

Texas DOT's Kit Black

Representing Resonac America elastomers are Nilesh Prasad, Karolina Mera, Kiyoko Kuzumi and Yuya Ohguma

Slurry Pavers' Carter Dabney and VSS's Doug Houge

Brad Barr and Stephanie Bryant, Evergreen Roadworks

ARRA president Bryan Ray presents John A. Miller Award for Excellence in Cold Planing to Clayton Weaver, Utah DOT

Ergon's Charles Taylor, James Schoger, Karri Chane and Tom Henderson

Editor Gavin Jenkins presents Roads & Bridges Award for Excellence in Hot In-Place Recycling to Richard Sanders, Polk County, Minn., with Dustrol's Donn Johnson

Greg Arntson and Matt Kennedy present plant performance award to Christine Hagele, Russell Standard

ARRA's Bryan Roy presents Richard E. Lowell President's Award to Dr. David Jones, UC-Davis, with Ben Bowers, NCAT

ISSA's Jeff Roberts with Alabama DOT's Lyndi Blackman and Ergon's Matt Jeffers

ISSA's Jeff Roberts honors FP² past-president Tim Harrawood for his long-time service to the association and industry

Jeff Roberts presents ISSA's International Award for Excellence to Natalia and Fabio Mendez, CI MPI LTDA, Santander, Colombia, for preservation in Puerto Rico

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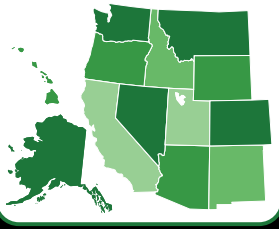
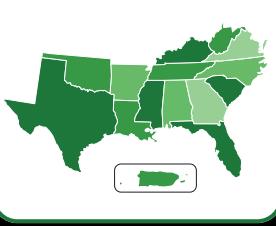


MIDWESTERN
PAVEMENT PRESERVATION PARTNERSHIP

SOUTHEAST
PAVEMENT PRESERVATION PARTNERSHIP



NORTHEAST
PAVEMENT PRESERVATION PARTNERSHIP

Save the Date: 2027 Slurry Systems Workshop

Delegates to the **2027 Slurry Systems Workshop** will experience hands-on tech transfer, education and certification, real-world application tips, and connections with the innovative industry serving the market.

Hosted by the International Slurry Surfacing Association (ISSA), the 2027 *Slurry Systems Workshop* will take place Jan. 18–21, 2027, at the Palace Station Hotel & Casino in Las Vegas, Nev.

This industry-leading event brings together contractors, suppliers, agency representatives, engineers and emerging professionals for four days of technical education, hands-on learning, and valuable industry connection.

The workshop is designed for professionals across the pavement preservation industry, including contractors, suppliers, consulting engineers, government agencies, and academia. With content tailored to a wide range of roles and experience levels, the workshop will foster a shared understanding that strengthens collaboration and project performance.

Designed to connect knowledge with real-world application, the Slurry Systems Workshop will deliver practical insight into slurry surfacing, micro surfacing, chip seals, and crack treatments. Whether you are new to these preservation methods or looking to refine your expertise, the workshop will provide tools and perspectives that help you and other attendees improve project efficiency, troubleshoot challenges on-site, and implement best practices with confidence.

PRACTICAL SOLUTIONS

The Slurry Systems Workshop is built around the everyday challenges faced by pavement preservation professionals, including achieving consistent field results, navigating evolving materials, specifications, and inspection practices. With projects often constrained by tight timelines and budgets, the workshop emphasizes approaches that improve quality, efficiency, and long-term performance.

Through expert-led sessions and interactive discussions, attendees will gain a deeper understanding of how planning, materials selection, calibration, application, and inspection all contribute to project success. Grounded in real-world experience, the program encourages collaboration across roles and equips participants with knowledge they can immediately apply.

The Slurry Systems Workshop will feature classroom instruction led by experienced industry leaders, and covers the full life-cycle of slurry systems work. Multiple learning tracks will allow attendees to tailor their experience based on role and experience level, creating value for both newcomers and seasoned professionals.

Sessions focus on clarity, consistency, and implementation. Participants gain a better understanding of what is required, why it matters, and how it impacts field performance. They also explore real-world examples and case studies that demonstrate how decisions in design, materials, and application directly affect project outcomes.

HANDS-ON DEMOS

One of the most anticipated components of the Slurry Systems Workshop is *Hands-On Day*, featuring the *Contractor Showcase* and *Demo Day*. This interactive experience allows attendees to observe slurry surfacing, micro surfacing, and chip seal operations in real time.

Participants gain close-up exposure to equipment setup, application techniques, and crew coordination. Seeing treatments applied in real time allows attendees to ask questions, observe troubleshooting techniques, and fully grasp how preparation, coordination and inspection influence long-term performance. These demonstrations will provide practical insight that connects classroom learning directly to field execution.

The workshop also will feature an exhibit area showcasing equipment, materials, and services that support slurry systems and pavement preservation. Attendees can explore emerging materials, advanced application equipment, and services that support safer, more durable pavement preservation. Exhibitors provide direct access to technical expertise and solutions that help attendees stay ahead of industry trends.

Networking is integrated throughout the event, providing opportunities to exchange ideas, compare strategies, and learn proven techniques from peers and industry veterans. These connections strengthen collaboration and foster a shared understanding that benefits every phase of a project.

CERTIFICATION EXAMS

The workshop will conclude with certification exams hosted by ISSA and the National Center for Pavement Preservation (NCPP), giving attendees the opportunity to earn or maintain key industry credentials. These certifications support consistency, professionalism, and high-quality outcomes across pavement preservation projects while adding value for both individuals and their organizations.

Additional details, including registration information and agenda highlights, will be released in the coming months. To stay informed and receive updates, scan the QR code in the image to save the date and be the first to know when registration opens!

Micro Surfacing Preserves Mount Rainier N.P. Pavements

BY LUKE AFATO AND JEFF ROBERTS

Type II and Type III micro surfacing, crack sealing, asphalt concrete patch paving, and final pavement marking installation were among the sustainable preservation techniques used to prolong the life of pavements in Mount Rainier National Park last summer.

The work in this environmentally sensitive area was undertaken by VSS International Inc. and its subcontractors, which executed pavement preservation techniques on over 74 lane miles of roadway, dozens of campground loops, multiple paved trails throughout the park, and over 75 parking areas. Included was the iconic parking lot serving the historic Paradise Inn, an historic landmark built in 1916 that is one of the park's most iconic and heavily visited facilities.

LANDMARK NATIONAL PARK

Rising majestically above the forests of Washington State, Mount Rainier's iconic volcanic peak has captivated explorers, artists and conservationists for generations. Established in 1889 as the fifth national park in the United States, the park's legacy is deeply intertwined with the birth of the National Park Service.

Macropaver at work approaching ramparts of Rainier

The park's 14,410-ft., snow-capped summit dominates the skyline as the crown of the entire Cascade Range, and commanding the eastern horizon of Seattle and suburbs.

Due to Mount Rainier's location and elevation, the park's extreme alpine climate is both its greatest asset and its greatest challenge. While summer days are mild, winters are severe, with temperatures plunging well below zero and wind chills that can reach –60 deg F miles within the park as the elevation increases.

Paradise, one of the park's most popular destinations, receives an average of 600–700 in. of snow annually, one of the highest totals in the contiguous United States. These conditions create a short, highly constrained and weather-dependent construction season, and subject the park's roadways to relentless freeze–thaw cycles, prolonged snow cover, moisture intrusion, and thermal stress. These environmental factors cause material selection, construction timing, and pavement preservation technique selection to be critical to the long-term performance and service life.

MULTI-MILLION PROJECT

In the summer of 2025, VSS International undertook the multi-million-dollar pavement preservation contract within Mount Rainier National Park. The project's mission was to improve roadway conditions, maintain historic park features, and extend the service life of critical infrastructure through timely and innovative surface treatments while minimally disturbing wildlife.

The preservation techniques were tailored to the park's existing pavement conditions. Working within a highly constrained construction window, the contractor coordinated closely with park staff and the Federal Highway Administration to ensure that safe access was always maintained to park visitors.

The scope of work was ambitious. Type II and Type III micro surfacing applications, in

Parking areas in reserve required extensive hand work

addition to crack sealing and asphalt patching, were carefully selected and applied to address the park's diverse roadway conditions and environmental demands.

On-site, with over 650,000 sq yd total, micro surfacing operations seemed to be as large as the summit itself. VSS placed over 185,000 sq yd of Type II and over 475,000 sq yd of Type III micro surfacing. To meet the challenges of Mount Rainier's varied terrain and tight roadways, the contractor deployed a fleet of specialized equipment manufactured by VSS Macropaver.

CALIBRATION AND TEST STRIPS

All equipment was calibrated at Washington Rock's local quarry, the supplier for all 7,000-plus tons of micro surfacing aggregate. These calibrations were closely supervised and documented by both the quality control manager and quality control technician.

Following all calibrations, multiple test strips were performed for both the Type II and Type III to verify application rates and ensure a uniform, high quality final product. Finding locations to perform test strips was another unique challenge involved in this contract. Multiple test strips were completed and approved at the Washington Rock quarry, and a Pierce County fire station located in Elbe about 15 miles outside of the park.

These test strips were supervised by the quality control manager and verified by the federal Inspector prior to being approved to perform work within the park. While calibrations and test strips were being performed, the QC technician took multiple split samples of both the aggregate and emulsion, providing one sample to FHWA and shipping one sample to their lab for testing.

Over 650,000 sq yd of micro surfacing were placed

The technician continued to take split samples at the specified frequency throughout the entire project. Lab results from multiple sources allowed test results to be cross-examined between parties to identify any inconsistencies in the material. This process ensures that all material to be utilized was compliant with specifications and were to result in a final product that the FHWA, park staff and park visitors will be satisfied with.

The Macropaver 12E truck-mounted units were the workhorses in areas where maneuverability and precise material placement were critical. These units performed in constrained and high-profile locations such as Narada Falls, Reflection Lakes, and the Comet Falls parking areas.

These sites, as well as many others throughout the park, contain natural beauty and historical features that demand both a technical finesse and a light environmental footprint. The micro paver eco-friendly units proved themselves invaluable on tight roadway segments and campground loops, including the winding approaches to Cougar Rock campground, where space was limited and visitor access had to be maintained.

The challenge of limited space was a common theme through the duration of the project, and was a constant battle when it came to staging areas for contractors. With very few areas to store equipment and material, and multiple contractors working simultaneously, constant communication between all parties was critical.

CONTINUOUS SEGMENTS

For the park's longer, uninterrupted roadway segments, a second crew utilized the Macropaver CR continuous unit. This state-of-the-art equipment was engineered for high-output and consistent application to maximize operational efficiency.

Period park-style curbing is protected with tarps from surface treatment

These qualities were put to the test on park routes like Stevens Canyon Road and Nisqually Road. The continuous unit's ability to deliver seamless, high-production micro surfacing lifts was essential for maximizing productivity within the park's short construction window.

Both Stevens Canyon and Nisqually Road presented some of the most significant logistical and operational challenges of the project. These routes' steep grades and tight switchback curves required detailed planning and intense coordination between crews, traffic control personnel, and park staff.

Safely maneuvering the continuous equipment through these obstacles – while achieving a uniform, high-quality application with minimal joints – demanded skill and teamwork. In total, more than 5,700 tons of Type III aggregate were successfully applied across nearly 40 miles through the park.

SUBSTANTIAL PREP WORK

Prime VSS and its subcontractors were required to perform a substantial amount of preparatory work prior to the micro surfacing operations. With winter temperatures arriving sooner than expected, completing this preparatory work as early as possible

was important, as the construction window is extremely short at the higher elevations in the park.

Starting and completing these preliminary scopes of work earlier in the year allows micro surfacing operations to begin earlier as well. Both QC manager and technician were on-site, closely supervising every scope of work within this contract.

Crack sealing operations were performed to prevent moisture intrusion and slow the progression of reflective cracking. Areas exhibiting base failure or advanced deterioration were repaired through asphalt concrete patch paving to restore structural integrity before receiving surface treatments.

One unique yet critical task during this phase involved addressing the presence of moss, which is native to Mount Rainier National Park and commonly found on trees, bare rocks, and even the asphalt pavement itself.

While moss plays an important role in the park's ecosystem, it poses a significant challenge for pavement preservation. Moss on the roadway surface can severely compromise the adhesion of micro surfacing materials, creating a risk of premature failure of the finished product.

To prevent this, the contractor began the moss removal operations weeks prior to the micro surfacing application. The process began with mechanical cleaning using specialized power brooms equipped with metal bristles designed to dislodge moss from the pavement surface without damaging the underlying asphalt.

In areas where moss was deeply embedded or where mechanical removal alone was insufficient, high-pressure washing was used. For tight spaces, edges, and delicate areas near park features, crews utilized hand tools to carefully remove moss without disturbing adjacent vegetation or structures. Completing this preparatory work was critical to achieving consistent micro surfacing performance and meeting the quality expectations established by FHWA and park staff.

WEEKLY MEETINGS

Weekly operation meetings were held as the prime contractor met with all stakeholders involved, including VSS management, QC managers, FHWA representatives, traffic control supervisors, park staff, and crew superintendents. This allowed all parties to be aware of the progress being made, while also ensuring that any closures required were communicated to the parks at least two weeks in advance.

The successful coordination of crews, subcontractors, and supporting personnel across multiple locations in the park demonstrated the team's ability to operate efficiently within an exceptionally tight construction window.

Despite weather limitations, logistical challenges, and the complexity of working in an active national park environment, the team's communication, adaptability, and commitment to quality ensured that every aspect of the project moved forward safely and effectively. These combined efforts laid the groundwork for the successful completion of the micro surfacing operations and contributed significantly to the project's overall success.

Afato is project engineer/estimator, and Jeff Roberts is president, VSS International, Inc.

PPRA's 2025 Network Hero: Scott Gibson

BY LINDSAY MATUSH

Each year, the Pavement Preservation & Recycling Alliance (PPRA) recognizes one individual across North America whose leadership has measurably improved the health of a roadway network. The Network Hero Award is not given for good intentions or isolated success, but honors sustained, system-level impact.

This year's recipient, **Scott Gibson, P.E.**, of the Regional Transportation Commission (RTC) of Washoe County, Nev., exemplifies exactly that.

Over the past two decades, Gibson has helped lead a transformation that many agencies strive for but few achieve: **raising the network's Pavement Condition Index (PCI) from the mid-60s in the 1990s to over 80 today**, while holding less than 2 percent of roads in poor condition. In an era where many networks are struggling just to maintain condition, RTC has done something far more difficult – it has gained ground and sustained it.

What sets Gibson apart – and what makes this a Network Hero story – is not just the outcome, but the consistency behind it.

DATA TELL THE STORY

The data tell the story. RTC's network didn't improve through a one-time investment or a short-term initiative. It improved because of disciplined decision-making, year after year, and steadily introducing new tools to the toolbox to treatments all along the pavement deterioration continuum.

Gibson has been working with the RTC since 2006, during the network's steady climb from the mid-60s to the low 80s. The network has remained there, demonstrating not just improvement, but stability and control at the network level.

That kind of performance reflects something deeper than good engineering. It reflects leadership that aligns strategy, funding, and execution over decades.

One of the most overlooked aspects of network success is not technical – it's political and public.

Twice, in 2002 and 2008, Washoe County voters approved tax increases to support transportation infrastructure, an extraordinary level of public buy-in. That support did not happen by accident. It was earned.

Gibson played a key role in translating technical strategy into clear, defensible outcomes that elected officials and taxpayers could understand. The result is a program that has not only delivered strong pavement conditions, but also maintained the credibility required to sustain funding over time.

WHAT HE DID DIFFERENTLY

On the surface, RTC's approach may look familiar. Like most agencies, it uses a mix of preservation, corrective, and rehabilitation treatments.

What's different is how consistently and deliberately those tools are applied at the network level.

Project selection is driven by data, using condition thresholds and traffic to guide decisions. Treatments are applied at the right time, not too early, not too late. And perhaps most importantly, decisions are made without regard to jurisdictional boundaries, ensuring that resources are directed where they have the greatest system-wide impact.

This "jurisdiction-blind" approach removes politics from project selection and aligns all stakeholders around a single goal: maximizing network performance for the taxpayer. The result is a program that stays in balance, in which deterioration and investment are continuously aligned.

RTC leverages a wide range of preservation and corrective treatments. In addition to standard treatments like mill-and-fills and thin overlays, RTC also has a broad mix of preservation and recycling treatments such as **crack, chip** and **slurry seals, micro surfacing, scrub** and **cape seals, full depth reclamation** (FDR), and many more, to extend pavement life at lower cost. This allows the agency to treat more miles each year and avoid over-reliance on expensive reconstruction.

Scott Gibson will be sharing his expertise, lessons learned, and practical guidance in a webinar this fall. Please visit **RoadResource.org** and sign up for the newsletter to be alerted when you can register to watch Scott live, or register for a Roadvocate training and learn how to implement these treatments in your network. Webinars from previous winners can be viewed at https://roadresource.org/webinars.

At PPRA meet in Austin, executive director Rick Church presents Washoe County, Nev.'s Scott Gibson with PPRA's Network Hero Award

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

PG3 Project Enters Third Year of Research

BY TODD SHIELDS, P.E.

The *National Partnership to Improve the Quality of Pavement Preservation Treatment Construction and Data Collection Practices* multi-state pooled fund, commonly known as PG3, now is in its third year. Seven states have projects on the ground so far, and we expect at least four more by the end of the construction season 2026.

The pooled fund is guided by the lead state, **Minnesota**, and the technical team, which includes the **National Center for Pavement Preservation** (NCPP) and the **National Center for Asphalt Technology** (NCAT).

The Technical Advisory Panel (TAP) held virtual meetings in January and July. The first in-person meeting of 2026 was held on May 7 in conjunction with the Northeast Pavement Preservation Partnership (NEPPP) meeting in Springfield, Mass. The fall TAP meeting will be Oct. 6–7 at the MnROAD facility. Each DOT's lead, along with the technical team, make up the TAP. **FHWA and FP² Inc. also are active participants**.

PG3: A BUSY 2026

Alabama DOT constructed the first project of 2026, **a scrub cape seal**. **Mark Waits with NCPP** provided training to DOT inspection and contractor staff on April 21. The project is on SR 109 in Houston County, from the Florida state line to U.S. 231, roughly 10 miles in length. The road was last resurfaced in 2014. The project is in a region of the state that has not done much micro surfacing in recent years, so the aim is to deliver a successful job that will allow the treatment's usage to expand.

Alaska DOT is constructing a **chip seal** on Glacier Highway in the Juneau area over the summer. This 2 ½-mile project presented several challenges. As chip seal is not a common treatment in the area, the materials and equipment had to be brought in from other parts of the state. The weather is another obstacle as fog and drizzle can move in quickly, so the construction window for a chip seal can be very narrow. Virtual training for this project was held on April 15 and conducted by **Rex Eberly with NCPP**.

This summer will also see the construction of **New Mexico DOT's RAP chip seal**. The project will be on NM 219 in Guadalupe County, covering 15 miles. This highway is a true testament to pavement preservation, as it was last resurfaced in 1994. It received a micro surface in 2011 and patching in 2017. The road is rated in "fair" condition per New Mexico DOT's pavement management system.

REVISITING 2025 PROJECTS

Revisiting the projects constructed in 2025, all have survived their first winter!

Mississippi's scrub cape seal, Idaho's RAP chip seal, and **Minnesota's scrub cape seal** are all performing well. Data are being collected. **North Carolina's spray-applied rejuvenator** is so far exceeding expectations. Early data show that friction numbers are good, and the measured viscosity change in the asphalt binder is well above the specified threshold. **Delaware DOT's** project is also doing well. This project was a **rut fill micro surfacing** on the shoulders to correct Amish horse and buggy damage.

The remaining participating agencies are continuing to develop specs and identify projects. **Washington DOT** is considering a **rut fill treatment with chip seal**. With technical assistance provided by the pooled fund, **Maryland** has developed **specifications for scrub seals**, and **New York DOT** is developing specifications for a **rejuvenating cold-in-place recycle** project.

Each state that joins will strengthen the ability to have successful pavement preservation projects nationwide by sharing its history, knowledge, and even specifications. Any agency interested in joining the project is welcome. The pooled fund currently includes 20 states.

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

Micro surfacing fills shoulder ruts caused by horse-drawn buggies; Delaware rut during preconstruction September 2025

As-built Delaware shoulder rut after micro placement, March 2026

D.C. Update: Bringing Home the Value of Pavement Preservation and Recycling

BY TRACY TAYLOR

With Congress working to a Sept. 30 deadline to authorize the next surface transportation reauthorization bill, major policy decisions are underway and industry engagement is essential.

The pavement preservation and recycling sector has a compelling story to tell, one grounded in cost efficiency, sustainability, and improved system performance. **Even as FP² is on Capitol Hill conveying that message, more must be done.** The message can be effectively amplified when coupled with opportunities for lawmakers to see what pavement preservation and recycling can do firsthand in the field.

HOST A LEGISLATOR

One of the most effective ways to influence federal policy is by hosting your elected officials at your office, plant, facility or active job site. Members of Congress and their staff benefit tremendously from seeing pavement preservation and recycling in action: how treatments are applied, the technology involved, the skilled workforce required, and the real-world value delivered to communities. These visits help translate abstract policy discussions into tangible outcomes: safer roads, extended pavement life, reduced costs, and local jobs.

Congressional "district work periods" throughout the year – including late May, July, August, and October – provide prime opportunities to schedule these visits. District work periods are longer during election years when members of Congress are even more interested than usual in engaging with their constituents, particularly those employing people and bringing value to their communities. **Reaching out as early as possible to an office's scheduler or district director ensures your business and your work are on their radar.**

Hosting a visit does more than educate; it builds lasting relationships. It positions you and your organization as a trusted resource when transportation policy decisions are being made. Whether it's a tour of your facility, a walk-through of an active project, or a roundtable discussion with your team, these engagements can have a meaningful and lasting impact.

The message is simple: Open your doors. Show your work. Tell your story. The more policymakers understand the value of pavement preservation and recycling, the stronger the industry's voice will be in shaping the future of federal transportation investment.

Help from FP² is available at no charge. While the process of hosting your elective officials may seem daunting at first, FP² has compiled a playbook available on its website under *Advocacy Tools and Talking Points* which sets forth in detail steps you may follow to host your elected officials. You will find talking points, sample invitation templates, ways to identify your members and e-mail them, and a format for hosting them at your facility, office, or work site. Access the URL via the QR code at the end of this article.

TRUST FUND ON LINE

It's not just the policy which needs attention, but the funding. Funding for the reauthorization act is derived from the Highway Trust Fund, but underlying the entire reauthorization debate this year is a persistent and largely unaddressed issue: the structural insolvency of the Highway Trust Fund.

The Highway Trust Fund, which is primarily supported by the federal gas tax of 18.3 cents per gallon, has not been adjusted since 1993. Over the past three decades, improved vehicle fuel efficiency and the rapid growth of electric vehicles have steadily eroded its purchasing power. The result is a widening gap between revenues and authorized spending.

To date, Congress has bridged this gap through repeated transfers from the general fund. However, if existing act IIJA-level spending continues without new revenue mechanisms, the shortfall is projected to reach approximately $40 billion annually, totaling nearly $240 billion over a six-year authorization.

Despite the magnitude of the issue, it has received limited legislative attention from the House Ways & Means Committee or the Senate Finance Committee. **While there seems to be fairly wide agreement that it is equitable for electric vehicles to pay into the Highway Trust Fund**, should this occur, the funding added to the HTF will come nowhere close to closing the funding gap.

More needs to be done. Discussions around a solution have included substituting a vehicle registration fee for the current taxation system, utilizing a vehicle miles driven system, or increasing the gas tax, but a consensus on approach has yet to develop. **As part of any Congressional visit, underscoring the need for a solution to the Highway Trust Fund shortfall is critical.**

For the pavement preservation and recycling industry, the implications are clear: without a sustainable funding solution, long-term planning becomes more difficult, and cost-effective pavement preservation and recycling strategies risk being underutilized in favor of short-term fixes.

Taylor is principal at Alignment Government Strategies, Washington, D.C., and is FP² Inc.'s legislative counsel

On-Site Decision Making for Chip, Scrub Seals

Editor's Note: *This is the 35th 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* ***Olivia Guthrie****, graduate research assistant at Mississippi State University. Thanks to* ***Dr. Isaac Howard, P.E.*** *Richard A. Rula School of Civil & Environmental Engineering, Mississippi State, and* ***Andrew Braham, P.E.****, University of Arkansas, for their assistance with this article.*

WHAT GOT YOU INTERESTED IN PAVEMENT PRESERVATION?

I have worked with pavements for the last four years, which has given me some exposure to a variety of subjects including surface treatments. My specific interest in pavement preservation began as a research assistant at Mississippi State University (MSU) within the Construction & Materials Regional Consortium (CMRC).

This interest continued overtime when I enjoyed opportunities to work in conjunction with Ergon Asphalt & Emulsions, the City of Starkville, Miss., T.L. Wallace, and others from MSU-CMRC on a variety of pavement preservation activities in Starkville.

In the fall of 2025, we held a pavement preservation workshop where I was able to perform laboratory demonstrations and witness the interest in this topic from an audience ranging from elected officials to design professionals to municipal employees with a variety of job duties.

HOW IS YOUR RESEARCH RELATED TO PAVEMENT PRESERVATION?

The overarching goal of my preservation research to-date is improving early age and on-site decision making for chip and scrub seals.

This research has two primary focus areas:

- **The first is a vehicle-mounted** device that can abrade or sweep a surface with comparable conditions to ASTM D7000 to allow aggregate loss potential to be measured on the roadway at any instant of interest.
- **The second is a toolbox** to allow moisture loss to be measured on-site during early age sealing activities. The ultimate goal is to couple these two items together to produce curves that correlate moisture loss to abrasion loss in the field, because by doing so, timing decisions during the first few hours to days of a chip or scrub seal's life can be improved.

The research is being performed in a manner that does not require a user to have the vehicle-mounted abrasion device, and they can rely on relationships that are being produced.

I also have begun early stage efforts on a device known as the **Mississippi Permeameter (MSP)**. This device has been studied for several years by my advisor and colleagues, and I plan to further standardization efforts with the MSP, which allows water infiltration of a variety of surfaces to be measured with one method.

HOW HAS YOUR PERSPECTIVE CHANGED ABOUT OUR ROAD INFRASTRUCTURE SINCE BEGINNING RESEARCH?

I entered this field with the overall perspective that roads are important and require skill to design and build. Since beginning research, this perspective has heightened (not changed), and I now believe roads are even more important and require even more skill to design, build, and also maintain.

The primary perspective shifts research has given me relate to pavement network management, the importance of specifications, and the multiple factors that drive lifetime performance.

Pavement management requires understanding existing conditions of a network, strategic planning, and goals. Previously, I would have been more receptive to the "worst first" manner of thinking; I was not aware of the fruitfulness of applying the right treatment on the right road at the right time nor the economics of a pavement's condition.

Specifications are the driving force behind mixture design and paving operations. Equally negative impacts can result from specifications that are too stringent or too lax, so developing specifications in a way that leads to a desired outcome while also leaving room for decision making when needed is a difficult balance.

The multifaceted nature of factors which contribute to long term pavement performance can additionally make specifications difficult to balance. No singular test or value defines lifetime performance, rather, it is the combination of many factors.

DO YOU HAVE PLANS TO CONTINUE IN THE FIELD OF PAVEMENT PRESERVATION UPON GRADUATION?

I plan to work with pavements for the U.S. Army Corps of Engineers at its Engineer Research & Development Center (ERDC) upon graduation. It's fairly certain that pavement preservation will play at least some future role in my career.

Olivia Guthrie in the lab at Mississippi State, Starkville

WRAPP Wraps Up its Annual Meet in California

The Western Regional Association for Pavement Preservation (WRAPP) gathered 200 industry leaders for its **2026 Annual Workshop,** held Feb. 4–6 in Friant, Calif.

"This year's event truly highlighted the spirit of innovation in our industry," said VSS's **Matt Ferguson**, outgoing WRAPP president. "The level of knowledge-sharing and the commitment to finding sustainable, long-term solutions for our infrastructure challenges was inspiring."

A central theme was transportation funding. Senior transportation engineer **Steve J. Lee** of Caltrans outlined the management of 50,690 lane miles, highlighted the Highway Maintenance budget, and the $25.3 billion, 10-year State Highway Operation Protection Program, and discussed the agency's collaboration with industry to improve construction standards and testing methods. **Kiana Valentine**, executive director of Transportation California, addressed the need to replace the declining gas tax, presenting revenue options such as a road user charge and a legislative strategy to find a solution by 2027.

VSS's Jeff Roberts is honored with a lifetime achievement award at the February 2026 WRAPP meeting in California. Representing the WRAPP board are, from left, Ted Maxwell, Matthew Conarroe, Matt Ferguson, Roberts, Tim Schmid, Steve Wyrick and Sue Sasse

Dr. DingXin Cheng of the California Pavement Preservation Center presented multi-year data showing the effectiveness of treatments like fiber-modified overlays and asphalt rubber chip seals.

Sallie Houston of Granite and **Scott Metcalf** of Ergon Asphalt & Emulsions delivered presentations on the chemical engineering of asphalt emulsions, explaining how binders can be tailored for improved performance and sustainability.

Experts demonstrated how these strategies are being successfully applied. The City of Bend, Ore., served as a powerful case study, with **Chuck Swann** and **Paul Neiswonger** sharing how their city raised its overall Pavement Condition Index (PCI) from 68 to 76 through a data-driven program and a newly adopted Transportation Utility Fee to ensure stable funding.

Presentations also dove into specific issues, including:

- **D.J. Cruz** (American Pavement Systems) on multi-layer systems to cost-effectively extend road life
- **Doug Olsen** (Western Emulsions) on modern scrub seals for more versatile crack sealing
- **Roger Smith** (California Pavement Preservation Center) on best practices for preparatory work like crack treatments and patching
- **Wade Miller** (Main Street Materials) on the key differences between protective fog seals and penetrating rejuvenating emulsions
- **Zach Jensen** (Bergkamp) on the critical importance of precisely calibrating slurry and micro surfacing equipment, and
- **Sri Holikatti** (Caltrans) on the results of a 12-year chip seal performance study.

The workshop also recognized outstanding contributions to the field with its annual awards:

- *Lifetime Achievement Award:* **Jeff Roberts**, president, VSS International
- *Agency Pavement Preservation Award:* **City of Bend**
- *Excellence in Contracting Award:* Mount Rainier National Park Pavement Preservation Project: **VSS International and Federal Highway Administration;** see article this issue
- *Excellence in Contracting Award:* 2025 Roadway Surface Treatments Process; **Pavement Coatings Co. and County of Placer**
- *Excellence in Contracting Award:* 2025 Resurfacing Project – Phase II; **American Pavement Systems and City of Coalinga**

At the event's end, WRAPP president Ferguson passed the gavel to the organization's new president, **Sue Sasse** with Asphalt Paving Systems.

Pavement Preservation at Center of New WashDOT Budget

The *Washington State Standard* reports that **Gov. Bob Ferguson** signed a spending plan for the state transportation system that he said bolsters preservation of highways and will "deliver projects that Washingtonians rely on to get to where they need to go."

The $16.6 billion supplemental budget expends about $1.2 billion more than the two-year transportation spending blueprint lawmakers approved last year. Under another bill, Washington will do more borrowing to cover added transportation spending.

The largest share of new budget outlays is for preserving and maintaining highways and bridges. Ferguson has made this a focal point in his first term as governor, the *Standard* reports, adding for highway preservation, $300 million is new, and another $40 million comes from unspent dollars in the 2023-25 budget.

A separate highway maintenance program is getting a $40 million injection above what was originally approved last year.

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