NATIONAL PAVEMENT PRESERVATION CONFERENCE

npc23

SEPTEMBER 18-21
INDIANAPOLIS IN

IMPACTS AND BENEFITS FROM PAVEMENT PRESERVATION

ncpp
National Center for Pavement Preservation

Asphalt Materials, Inc.

ASPHALT DELIVERS

AMI SEAL™

Pavement preservation is highly cost-effective. Every Micro-surfacing study has shown that these types of treatments help extend pavement life.

AMI CYCLE™

CIR is a cost-effective and sustainable method of constructing a recycled asphalt-bound layer that reduces trucking and construction time and saves natural resources. CIR is part of our AMICYCLE™ product portfolio, which also includes FDR (Full Depth Reclamation) and CCPR (Cold Central Plant Recycling).

AMI GUARD™

A Rapid Penetrating Emulsion, like the ones found in Asphalt Material's AMIGUARD™ product portfolio can reduce air and water intrusion while maintaining the pavement's original texture. The penetrating nature of RPE means that the asphalt residue gets "in" the pavement rather than "on" the pavement. RPE is most effective if applied within the first year of the pavement's construction.

SCAN ME

Visit Our Website To Learn More About Our Products

www.asphalt-materials.com

Welcome

INDIANAPOLIS

On behalf of the National Center for Pavement Preservation (NCPP) at Michigan State University (MSU) and the organizing committee, I am pleased to welcome you to the Third National Conference on Pavement Preservation in Indianapolis, Indiana. This Conference will feature timely technical presentations, relevant panel discussions as well as live demonstrations of different pavement preservation treatments. The Conference will also provide a forum for the pavement preservation community members to stay current and gain knowledge, perspective, and information from exchange of ideas and interaction with attendees from other local and state agencies, industry, academia, and FHWA. It is also a forum where participants and attendees can develop, renew, or strengthen their professional relationships and widen their professional contacts.

Transportation infrastructure supports almost every aspect of our lives. From an individual perspective, we all well know that transportation infrastructure is essential to commute to work, obtain/deliver goods and services, visit with family and friends, travel both for leisure and work, etc. Transportation infrastructure is also critical to businesses and the Nation's economy, defense, and mobility. For added perspective, the 2022 USDOT Transportation Statistics Annual Report stated that our nation's transportation infrastructure is valued at $8.3 trillion, and its road system has about 4.2 million centerline-miles or 8.8 million lane-miles. In 2019, the federal, state, and local governments spent about $3.6 billion on highways. In 2021, according to the same report, transportation accounted for 8.4 percent of the nation's gross domestic product (GDP). Although transportation represents the second smallest share, it vitally drives the economy, connecting 7.9 million business establishments with customers, suppliers, and workers. In 2018, it served 327 million residents and 80 million international visitors. It allowed close to 276 million motor vehicles to drive a total of more than 2.9 trillion miles.

In such a context, deteriorating transportation infrastructure has a major economic impact. I think it is the Utah Department of Transportation (UDOT) that coined the phrase "good roads cost less." In essence, this is to emphasize the long-term financial savings that agencies gain when they keep roads in good condition through timely preservation treatments. As such, slowly but surely, we have come to realize there is a fundamental need, and subsequent benefits, to preserve our nation's transportation assets. Considering its quintessential role on the nation's economy, defense, and mobility, preserving our investment to ensure a resilient transportation infrastructure is intrinsically fundamental. Preservation is also critical to public agencies' essential mission to provide a safe, efficient, sustainable, and durable transportation infrastructure.

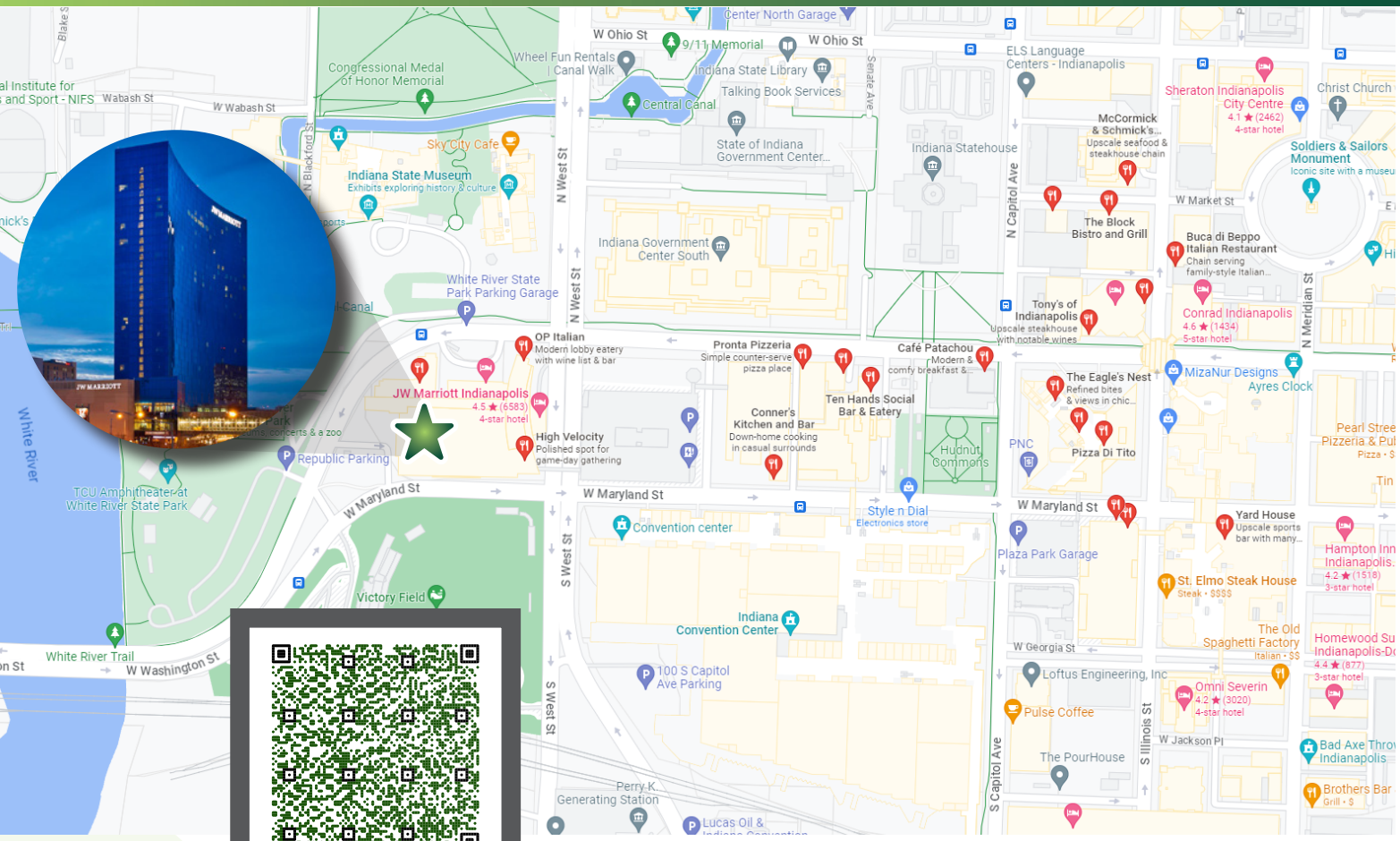
Pavement preservation has experienced many evolutionary milestones. Undoubtedly, it has resulted in significant innovations and advances both in terms of knowledge and practices. Moreover, specific economic benefits have been reported both in tangible and non-tangible less-quantifiable terms. Although Pavement preservation continues to grow and mature, the associated programs are still ultimately about performance and economics. So, this year's conference, appropriately themed "Impacts and Benefits from Pavement Preservation", focuses on these very issues. I am sure the presentations, discussions, and interactions will offer further insight into the extensive nature of the benefits generated from Pavement Preservation programs. Incidentally, the timing of the conference coincides with the twentieth anniversary of the establishment of NCPP. Since its inception, NCPP's forefront core mission has been to advance the preservation of our nation's transportation assets effectively and comprehensively.

I would like to take this opportunity to acknowledge the members of the conference steering committees for their diligent efforts and contributions to the development of the conference program. I would further like to acknowledge the speakers and the moderators. NCPP is very much appreciative of all the volunteers for their willingness to step forward and offer their time and energy while dealing with their own full-time duties and responsibilities. I would also like acknowledge the full participation and the generous support of the vendor, exhibitor, and contractor communities as they are essential to the success and viability of this Conference. Additionally, I would like to thank NCPP staff for their tireless efforts in support of the planning, organization, and hosting of this year's conference.

I look forward to seeing you there and hope your attendance will be a worthwhile experience as well as time well spent in your exploration of all that the conference and Indianapolis will have to offer.

Sincerely.

Bouzid Choubane
National Center for Pavement Preservation
Michigan State University



SCAN ME TO GO TO
JW MARRIOTT, INDY

THINGS TO DO, IN & AROUND INDIANAPOLIS

A city known for fast cars and blockbuster events has also gained acclaim for a flourishing culinary and brewing scene, thriving cultural institutions, cool neighborhoods, and so much more. TheJW Marriott is located in the heart of the downtown area. Please visit

https://www.marriott.com/en-us/hotels/ind-jw-jw-marriott-indianapolis/overview/ for more information.

Does your pavement preservation approach have a carbon strategy?

The construction and maintenance of America's roadways, when combined with vehicle emissions, is America's single largest carbon footprint, equating to 1.6 billion tons of CO_2e annually. According to the U.S. EPA, this will require $1.7 trillion in carbon offsets over the next decade. From EPDs to ESG, the FHWA's 'Climate Challenge' is just the beginning of what will soon become mandatory in paving.

What if we could transform millions of miles of roadway into the environmental equivalent of millions of acres of carbon-sequestering forest?

Cooler Pavements – improving pavement emissivity by 4x, reducing Urban Heat Islands, reducing electricity demand, and extending pavement service life

Shedding Water – creating super-hydrophobic pavements that accelerate water dispersion for cleaner, safer roads

Stormwater Purifying – decomposing dangerous roadway microplastic pollution and PFAS (forever chemicals) from tire wear

Preservation – doubling the interval between repaving cycles, slashing embodied carbon

Emission Removal – capturing up to 60% of vehicular emissions, targeting critical use-phase emissions

See detailed article in this issue.

Ours does.

The **PlusTi**™ family of pollution-reducing, life-extending roadway penetrants with titanium dioxide, represents an integrated approach to roadway asset management that significantly extends the life of asphalt and concrete pavements while providing road departments, urban planners, environmental engineers and sustainability managers with a way to aggressively reduce the most critical environmental hazards associated with road systems. ***For every mile of PlusTi-treated pavement, air quality improvement is equivalent to planting 20 acres of trees.***

Pavement Technology, Inc.
Real Science. Real Results.

www.smogeatingroads.com

PlusTi™
Smog Eating Roads
A Better Way to Get There

conference schedule

SUNDAY SEPT 17	**REGISTRATION & EXHIBITION SET UP**	1:00 PM - 6:00 PM	JW 6-10	**Guest Registration and Exhibitor Booth Set Up**
	CONFERENCE REGISTRATION | 7:00 AM - 5:00 PM | JW 6-10 | Guest registration			
	BREAKFAST and Vendor Displays on Your Own			
MORNING	**REGIONAL PARTNERSHIP BREAKOUTS** * SEE DETAILS ON PG 9	8:00 AM	JW 1	Midwest Pavement Preservation Partnership
			JW2	Northeast Pavement Preservation Partnership
			JW 3	Rocky Mountain West Pavement Preservation Partnership
			JW 4	Southeast Pavement Preservation Partnership
		10:00 AM		**MORNING BREAK AND VENDOR DISPLAYS**
	REGIONAL PARTNERSHIP BREAKOUTS * SEE DETAILS ON PG 9	10:30 AM	JW 1	Midwest Pavement Preservation Partnership
			JW2	Northeast Pavement Preservation Partnership
			JW 3	Rocky Mountain West Pavement Preservation Partnership
			JW 4	Southeast Pavement Preservation Partnership
MONDAY SEPT 18		12:00	JW 6-10	**LUNCH AND VENDOR DISPLAYS**
AFTERNOON	**AFTERNOON PLENARY SESSIONS** MODERATOR: *Bouzid Choubane, NCPP*	1:00	JW 5	**NCPP Welcome and Update** - Bouzid Choubane, NCPP **Indiana DOT Welcome** - Mike Smith, INDOT **FHWA Division Welcome** - Jermaine Hannon, Indiana Division FHWA **Keynote Speaker** - George Conner, Alabama DOT **FP2 Sorenson Award** - Mark Ishee, FP2 **ISSA/AEMA/ARRA Update** - Rick Church, FP2
		3:00 PM	JW 6-10	**AFTERNOON BREAK AND VENDOR DISPLAYS**
	AFTERNOON PLENARY SESSIONS MODERATOR: *Bouzid Choubane, NCPP*	3:30	JW 5	**ACPA Update** - Stephen Friess, ACPA **National Asphalt Paving Alliance Update** - Richard Willis, NAPA **Concrete Pavement Technology Center Update** - Dan King, CP Tech Center **APWA Update** - Keith Pugh, APWA President **NACE Update** - Stephen McCall, NACE (Champaign County OH) **FHWA Preservation Perspective** - Latoya Johnson, FHWA HQ
		5:30 - 7:30 PM	JW 6-10	**WELCOME RECEPTION AND VENDOR DISPLAYS**
		7-8:00 AM	JW 6-10	**BREAKFAST AND VENDOR DISPLAYS**
TUESDAY SEPT 19	**FOUR CONCURRENT SESSIONS**	8:00	JW 1	**FUNDAMENTALS - PAVEMENT PRESERVATION BASICS** MODERATOR: *Jason Dietz, FHWA* **Overview of the Asphalt Preservation Toolbox** - Stan Williams, Ergon **Overview of the Concrete Preservation Toolbox** - Larry Scofield, IGGA **Overview of the Recycling Toolbox** - Steve Cross, ARRA
MORNING		8:00	JW 2	**MATERIALS AND PAVEMENT - USE OF ASPHALT EMULSION** MODERATOR: *John Senger, Illinois DOT* **Emulsion Chemistry** - Kelly Morse, Illinois DOT **Latest Advancements in Emulsions** - Dan Swiertz, Asphalt Materials **Use of Crumb Rubber Modified Asphalt Binders** - Rod Birdsall, All States Materials Group
		8:00	JW 3	**ADVANCING THE PRACTICE - WORKFORCE DEVELOPMENT** MODERATOR: *Rob Green, Michigan DOT* **Workforce Development** - Gary Houston, Valero **Workforce Development Strategies** - Kierstin Janik, Heritage **Pavement Preservation College Curriculum** - Andrew Braham, University of Arkansas **CCPIC Training Program** - Gary Hicks, CPPC **Workforce Development Panel Discussion**
		8:00	JW 4	**DATA AND ANALYSIS - PAVEMENT CONDITION DATA** MODERATOR: *Kevin Kennedy, Michigan DOT* **PCI vs. Individual Distresses** - David Peshkin, AP Tech **Washington DOT State of the Practice** - Karen Strauss, Washington DOT **Pavement Data Management and Decision Making** - Magdy Mikhail, Trimble

	10:00 AM	JW 6-10	**MORNING BREAK AND VENDOR DISPLAYS**
FOUR CONCURRENT SESSIONS	10:15	JW 1	**FUNDAMENTALS - ASPHALT EMULSION BASICS** MODERATOR: *Alex Middleton, Mississippi DOT* **Overview of Asphalt Emulsions** - Sallie Houston, Arkema **Use of Polymers in Asphalt Emulsions** - Arlis Kadrmas, BASF **Asphalt Emulsions for Flexible Pavement Treatments** - Scott Metcalf, Ergon
	10:15	JW 2	**MATERIALS AND PAVEMENT - CONCRETE PRESERVATION** MODERATOR: *Jim Weston, Washington DOT* **Performance Engineered Mixtures** - Dan King, CP Tech Center **Concrete Pavement Restoration with Partial Depth Repair** - Gordy Bruhn, Minnesota DOT **NTPEP Test Deck Performance** - Katheryn Malusky, NTPEP
	10:15	JW 3	**ADVANCING THE PRACTICE - IMPROVING STATE** MODERATOR: *Mark Edsall* **NCHRP 9-63 National Performance Spec for Emulsified Asphalt Binder** - Mike Anderson, Asphalt Institute **NCHRP 20-44 Implementing Construction Guide Specs** - Rex Eberly, NCPP **Polymer Modified Slurry Seal A115 Spec** - Chuck Ingram, ISSA
	10:15	JW 4	**DATA AND ANALYSIS - PAVEMENT MANAGEMENT** MODERATOR: *Mark Ishee, Ergon* **Pavement Management FHWA Perspective** - Jason Dietz, FHWA **Utah DOT Perspective on Pavement Management Data** - Jason Simmons, Utah DOT **I-77 Corridor Pavement Management Case Study** - Neil Mastin, Mott MacDonald **Enhancing New Hampshire's Road Infrastructure Management Through SADES RSMS** - Chris Dowd, University of New Hampshire
	12:00	JW 6-10	**LUNCH AND VENDOR DISPLAYS**
FOUR CONCURRENT SESSIONS	1:15	JW 1	**FUNDAMENTALS - ESTABLISHING AN EFFECTIVE PROGRAM** MODERATOR: *Scott Nazar, FORTA* **Getting Started in Preservation - County Perspective** - Lance Malburg, Dickinson County, MI **City of Bend Oregon Preservation Story** - Chuck Swann, City of Bend, OR **Managing Local Streets and Roads Through StreetSaver Program** - Sui Tan, Metropolitan Transportation Commission
	1:15	JW 2	**MATERIALS AND PAVEMENT - NEW APPROACHES** MODERATOR: *Steve Cross, ARRA* **Environmental Product Declarations - HMA Treatments** - Andrew Braham, University of Arkansas **Environmental Product Declarations - Concrete Treatments** - Brian Killingsworth, NRMCA **Innovative Pavement Options for Resiliency** - Jim Pappas, Delaware DOT
	1:15	JW 3	**ADVANCING THE PRACTICE - TRAINING** MODERATOR: *Chuck Ingram, ISSA* **Development of an SPS-2 Pavement Preservation Experiment** - Kevin Senn, NCE **Pavement Preservation Academy** - Ding Cheng, CPPC **Preservation & Pavement Management Training for Small Agencies** - Travis Walbeck, NCAT
	1:15	JW 4	**DATA AND ANALYSIS - SAFER PAVEMENT SURFACES** MODERATOR: *Jason Simmons, Utah DOT* **Relationship Between IRI and Vehicle Dynamic Response to Road Roughness** - Steve Karamihas, University of Michigan **Surface Characteristics** - John Senger, Illinois DOT **Friction Characteristics** - David Merritt, Transtec Group
	3:00 PM	JW 6-10	**AFTERNOON BREAK AND VENDOR DISPLAYS**

MORNING

TUESDAY SEPT 19

AFTERNOON

TUESDAY SEPT 19 — AFTERNOON

FOUR CONCURRENT SESSIONS	3:30	JW 1	**FUNDAMENTALS - TRAINING, CERT, NAT'L DATABASES** MODERATOR: *Mike Beaulah, Delaware DOT* **Laboratory Monitoring Using AASHTO Accreditation** - Brian Johnson, AASHTO re:source **National Pavement Preservation Certifications – What's in it for me?** - Rex Eberly, NCPP **Kentucky Transportation Cabinet Training Program** - Chad Shive, Kentucky TC **NTPEP Results on Preservation Products** - Katheryn Malusky, NTPEP
	3:30	JW 2	**MATERIALS AND PAVEMENT - RECYCLING** MODERATOR: *Eric Thibodeau, New Hampshire DOT* **NCHRP 14-43 Guide Specs for CIR and CCPR** - Brian Diefenderfer, Virginia Transportation Research Council **NCHRP 9-62, Rapid Tests and Specifications for Construction of Asphalt-Treated Cold Recycled Pavements** - Brian Diefenderfer, Virginia Transportation Research Council **Optimizing Design Decisions and Construction Procedures for Full-Depth Recycling** - David Jones, UC Davis **Characterizing Cold Recycled Pavements from Field-Sampled Cores** - Megan Yount, Heritage
	3:30	JW 3	**ADVANCING THE PRACTICE - SUSTAINABILITY** MODERATOR: *Steve Cooper, FHWA* **Sustainable Pavements Program** - Migdalia Carrion, FHWA **Reducing the Carbon Footprint of Concrete Pavements Through Preservation** - Thomas Van Dam, WJE **Environmentally Beneficial Paving Additives** - Michael Durante, Pavement Technology, Inc
	3:30	JW 4	**DATA AND ANALYSIS - PERFORMANCE** MODERATOR: *Aaron Gerber, Mott MacDonald* **Maine DOT Data Collection and Analysis** - James Havu, Maine DOT **Indiana DOT 20 Year Plan** - Jason Lowther, Indiana DOT **InfoPave System** - Jane Jiang, FHWA
DINNER ON YOUR OWN			

WEDNESDAY SEPT 20 — MORNING / AFTERNOON

	7-8:00 AM	JW 6-10	**BREAKFAST AND VENDOR DISPLAYS**
MORNING PLENARY SESSIONS MODERATOR: *Tim Harrawood, Vance Brothers*	8:00	JW 5	**NCAT Preservation Field Test Findings** - Adriana Vargas, NCAT **MnROAD Preservation Field Test Findings** - Jerry Geib, Minnesota DOT **Impacts of Local Agency Efforts in Pavement Asset Management** - Pat Conner, Indiana LTAP **Field Demonstration Overview** - Todd Shields, NCPP
DEMONSTRATIONS MODERATOR: *Rex Eberly, NCPP*	11:00 - 5:30 State Fairgrounds		**Field Demonstrations at State Fairgrounds** **Demonstration Program attached Separately** **Buses begin loading at 10:30**
DINNER ON YOUR OWN			

THURSDAY SEPT 21 — MORNING

	7-8:00 AM	JW 6-10	**BREAKFAST AND VENDOR DISPLAYS**
PLENARY MODERATOR: *David Peshkin, AP Tech*	8:00	JW 5	**Pavement Preservation Pooled Fund (PG3) Future** - Ben Worel, Minnesota DOT **FHWA Preservation Strategic Plan** - Jason Dietz, FHWA **FP2 Vision Ahead** - Rick Church, FP2 **Ask the Expert Panel Discussion** - Larry Scofield, Buzz Powell, Tracy Nowaczyk, Tim Harrawood, Jason Dietz
	10:00 AM	JW 6-10	**MORNING BREAK AND VENDOR DISPLAYS**
PLENARY MODERATOR: *George Conner, Alabama DOT*	10:30		**TSP2 Oversight Panel Introduction** - George Conner, Alabama DOT **Regional Partnership Updates** - Partnership Chairs: Rob Green, Michigan DOT; Steve Norton, Connecticut DOT; Kevin Robertson, Arizona DOT; Chade Shive, Kentucky TC
Closing Remarks	11:30	JW 5	**Closing Remarks** - Gary Hicks, CPPC
	12:00 PM		**CONFERENCE CONCLUDES**

REGIONAL PARTNERSHIP BREAKOUT SCHEDULE

MIDWEST		ROOM JW1
8:00 - 8:15	Welcome	Rob Green, Chair
8:15 - 10:00	State/Province and Updates from other PPP	State / Province Reps
10:00 - 10:30	MORNING BREAK JW 6-10	
10:30 - 11:30	Task Force Updates	TF Leads
11:30 - 12:00	MPPP Business Meeting	

NORTHEAST		ROOM JW2
8:00 - 8:10	Call to Order and Welcome	Steve Norton, Chair
8:10 - 10:00	State, Local and Province Reports	
10:00 - 10:30	MORNING BREAK JW 6-10	
10:30 - 11:00	State, Local and Province Reports	
11:00 - 11:30	Business Meeting	
11:30 - 12:00	Task Force Reports	

ROCKY MOUNTAIN WEST		ROOM JW2
8:00 - 8:15	Call to Order and Welcome	Kevin Robertson, Chair
8:15 - 10:00	State & Local Presentations	
10:00 - 10:30	MORNING BREAK JW 6-10	
10:30 - 11:00	State & Local Presentations	
11:00 - 11:30	Industry Introductions	
11:30 - 12:00	Business Meeting	

SOUTHEAST		ROOM JW3
8:00 - 8:15	Welcome	Chad Shive, Chair
8:30 - 9:30	State Presentations	
9:30 - 10:00	Business Meeting & Research Status Update	
10:00 - 10:30	MORNING BREAK JW 6-10	
10:30 - 12:00	State Presentations	

SPONSORS

PATRON

Heritage Research Group - Asphalt Materials .....BOOTH 44

DIAMOND

Ergon Asphalt and Emulsions.....BOOTH 43

PLATINUM

Pathway Services Inc.....BOOTH 41

Pavement Technology, Inc. .....BOOTH 45-46

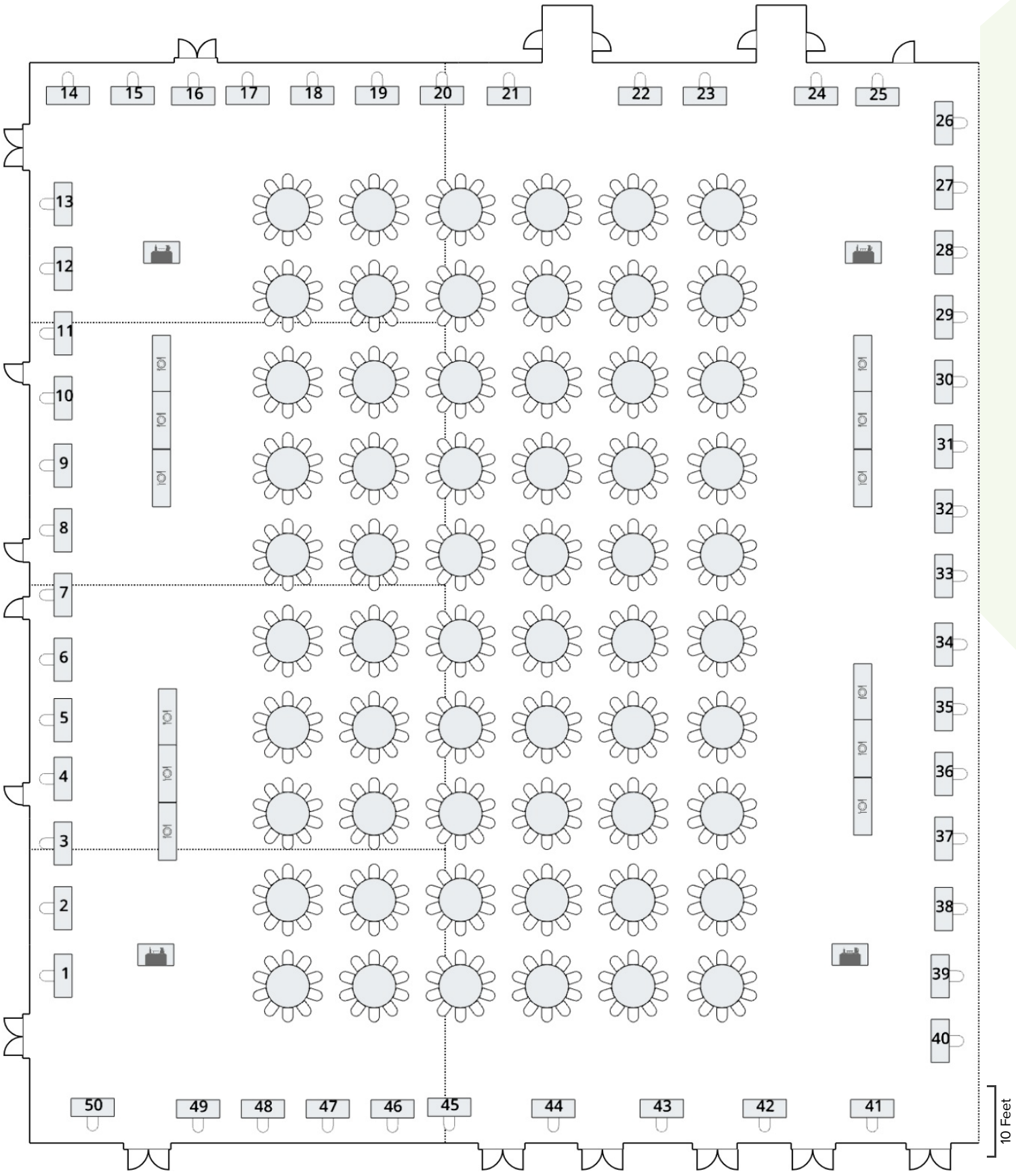
GOLD

VSS International Inc VSS Macropaver ..... BOOTH 40
Bergkamp, Inc. .....BOOTH 47
Fugro USA ..... BOOTH 39
Mott MacDonald..... BOOTH 38
RetroTekUSA Inc. ..... BOOTH 50
BASF
Highway Rehab Corp
Trimble

EXHIBITORS

All States Materials Group 33
Applied Research Associates, Inc. 12
Asphalt Pavement Alliance 7
BDI.....21
Beamish Construction Inc.....23
Bergkamp, Inc..... 47
Champaign Asphalt 11
Colas Solutions Inc. 35
Crafco Inc.....42
CTS Cement Manufacturing Corporation.....28
D.S. Brown Company.....9
Dynatest DK / Dynatest US Inc. 48
E-Chem.....26
Ergon Asphalt and Emulsions.....43
Etnyre International 8
FORTA.....3
FP2 37
FPT Infrastructure 1
Fugro USA.....39
Gallagher Asphalt Corp 29
GREENSBROOM.....6
Heritage Research Group - Asphalt Materials 44
Holbrook Asphalt..... 27
Idaho Asphalt Supply/Western Emulsions.....15
Illinois Certification and Research Track (ICART) 10
indus.....30
Ingevity..... 4
International Cybernetics Company, LP 36
International Grooving & Grinding Association.....32
ISSA 22
Mandli Communications 19
Maxwell Products inc.....49
Mott MacDonald 38
Nouryon 25
Pathway Services Inc.....41
Pavement Technology, Inc.....45, 46
RetroTekUSA Inc.....50
Russell Standard 17
SealMaster 2
Skidabrader Group, LLC 34
Strawser Construction Inc. 31
Tricor Refining..... 5
VSS International Inc VSS Macropaver 40

JW Grand 6-10 Floor Plan



TUESDAY SEPTEMBER 19
FUNDAMENTALS OF PAVEMENT PRESERVATION TECHNICAL TRACK

Overview of the Asphalt Based Preservation Toolbox

Stan Williams Ergon

A 30-minute presentation where we delve into the fundamentals of pavement preservation. Discover why implementing a comprehensive maintenance program to extend the life of your network is crucial. Rather than tackling individual road projects, we'll emphasize considering the entire network for better results, especially when faced with limited budgets. By prioritizing the worst roads, we risk neglecting others, leading to costlier rehab and reconstruction down the line. Our focus is on keeping good pavements in optimal condition, avoiding unnecessary expenses.

Overview of the Concrete Based Preservation Toolbox

Larry Scofield IGGA

Preservation of long-life pavements begins with the design phase, includes construction quality and specifications, and is managed by a closed loop PMS system as first described by Haas and Hudson in the late 1970s. Using such a process ensures the greatest time before restoration is needed. This presentation will begin by describing a cradle to grave concrete pavement preservation strategy and describes the six most common concrete restoration/preservation processes used today to extend pavement life: diamond grinding, full and partial depth repairs, joint sealing/resealing, dowel bar retrofit and cross stitching.

Overview of the Recycling Toolbox

Steve Cross ARRA

The Asphalt Recycling & Reclaiming Association's (ARRA) primary function is to promote and disseminate technical information on the recycling of existing roadway materials through various sustainable construction methodologies, preserving limited natural resources and reducing costs. ARRA's core recycling disciplines include cold planning, hot in-place recycling, cold recycling (cold in-place and cold central plant) and full depth reclamation. The focus of this presentation will be providing the audience with a brief overview of the resources ARRA, along with others, have developed to support the successful design, construction, and performance of in-place recycled pavements. These resources include the Basic Asphalt Recycling Manual, PPRA's roadresource.org web site, best practice guidelines, and web-based inspector training classes.

Overview of Asphalt Emulsions

Sallie Houston Arkema

This presentation is an asphalt emulsions 101 that will cover the basics of emulsions, the components of asphalt emulsions and how we achieve emulsion stability. We will review how important the different components of the asphalt emulsion and aspects of the production process are to making reliable products that give the desired performance properties in the field as well as what the tests we perform tell us about the intended use.

Asphalt Emulsions For Flexible Pavement Treatments

Scott Metcalf Ergon

This presentation aims to discuss the various pavement preservation techniques and treatments that utilize asphalt emulsions.

We will build off other presentations that explain how asphalt emulsion, comprising fine asphalt droplets suspended in water, offers a cost-effective and sustainable solution for pavement preservation. We will delve into the different types of asphalt emulsion-based treatments, focusing on their unique applications and advantages. We will cover many treatments such as: Fog Seal/ Rejuvenating Seal, Chip Seal, Micro surfacing, Cold In Place and Hot In place Recycling and many more treatments. That are sustainable and cost-effective tools that use Asphalt Emulsions

Use of polymers in Asphalt Emulsions

Arlis Kadrmas BASF

This presentation will look at the various polymers that are used in pavement preservation emulsified asphalts. A description of the polymers and how they affect the residual properties of the emulsified asphalt will be detailed. The use, and how the polymers affect the two main pavement preservation techniques, chips seal and micro surfacing will be shown in the presentation.

Getting Started in Preservation - County Perspective

Lance Malburg Dickinson County, MI

This presentation looks at setting up a preservation program at a local agency. We discuss the need for preservation, along with some of the common objections to preservation and how to overcome them.

City of Bend Oregon

Chuck Swann City of Bend, OR

Driven by a fast-growing community and increased tourism and lack of maintenance dollars, Bend quicky experiencing failing roads and many pothole complaints. With very few tools in the toolbox the city needed to put together some kind of street preservation program to stop more streets from entering that failing category. With support from city Leaders and established street funding committees, the street department has been able to turn the road condition needle. Ultimately the street department has gained the needed trust in our ability to be equitable in our approach, fiscally responsible and show results, this has led to a city-wide collaborative effort to obtain sustainable funding for street preservation.

Managing Local Streets and Roads Through StreetSaver Program

Sui Tan Metropolitan Transportation Commission

As an MPO of the San Francisco Bay Area with 9 counties and 100 cities, MTC has been assessing the investment needs for the local streets and roads using StreetSaver, a pavement management software widely used by local agencies, since 1987. Its use includes promoting pavement preservation through an incentive program at the regional level. The presentation will focus on performance management, introducing several key performance indicators on how to set up pavement preservation strategies in decision trees, and how to track if pavement preservation goal is achieved.

Laboratory Monitoring Using AASHTO Accreditation

Brian Johnson AASHTO Re: Source

This presentation will be focused on helping agencies understand how to use the AASHTO Accreditation Program effectively. Attendees will leave the presentation understanding how to properly require AASHTO Accreditation, how to search the accreditation directory, and how to know when there could be a problem with a laboratory's accreditation. There will be time for questions if attendees want to ask questions about other topics not included in the presentation as well.

National Pavement Preservation Certifications – What's in it for me?

Rex Eberly NCPP

Review of the different types of Certifications and help agencies understand the benefits of both Contractor and Agency Certification.

Kentucky Transportation Cabinet Training Program

Chad Shive Kentucky TC

Exploring Kentucky's Comprehensive Training and Education on Pavement Preservation Treatments. The presentation will highlight the pivotal role of training in ensuring the successful implementation of preservation techniques. Attendees will gain insight into training methods for project selection, equipment and material specification, calibration and sampling, and in-house treatment applications.

NTPEP Results on Preservation Products

Katheryn Malusky NTPEP

AASHTO's Product Evaluation & Audit Solutions Program (formerly NTPEP) conducts field and laboratory evaluations for High Friction and Thin Overlays (HFTO). Katheryn will describe the measures taken to prepare and execute a successful installation of these products on a test deck. She will also explain what data is collected during the instillation process and the data obtained throughout the 3 years these products are evaluated by AASHTO's Product Evaluation & Audit Solutions based on the measurements taken in the field.

TUESDAY SEPTEMBER 19 – MATERIALS AND PAVEMENTS TECHNICAL TRACK

Emulsion Chemistry

Kelly Morse Illinois DOT

This presentation will give an overview of the basics of asphalt emulsions. It will show how the chemistry of emulsions impact performance. A description of the manufacturing process and how final emulsions are classified will be shared. This presentation will lay the foundation of understanding of emulsions that will be built upon in later presentations.

Latest Advancements in Emulsions

Dan Swiertz Heritage

The use of asphalt emulsions is ubiquitous throughout the lifecycle of an asphalt pavement. From new construction to recycling and reclamation, emulsions are formulated to deliver performance across a range of climatic regions and construction variables. New and innovative advancements in emulsion technology have created valuable opportunities for contractors and road owners alike. This presentation examines several advancements in emulsion technology that offer unique opportunities to extend pavement lifecycle.

Use of Crumb Rubber Modified Asphalt Binders

Rod Birdsall All States Materials Group

Asphalt rubber has been used in a variety of pavement preservation applications for many years, but it has more recently come to the forefront in the industry with the increased focus on sustainability and the use of recycled products. Historically, the usage of crumb rubber as a modifier to asphalt binders has been used to improve the performance of applications compared to performance grade asphalts. The industry has continued to advance and grow the use of these modified binders at various rates in treatments including crack seals, fog seals, chip seals, thin overlays, and hot mix paving. This presentation will focus specifically on applications using higher percentages of asphalt rubber for higher performing pavement preservation treatments.

Performance Engineered Mixes

Dan King CP Tech Center

The recently concluded Performance Engineered Mixtures (PEM) pooled fund study has provided new tools and technologies to help deliver more durable concrete pavements around the country. This presentation provides an overview of the key principles of the PEM program, including how early-age concrete properties can be linked to durability and how new test methods can be used to design and monitor concrete pavement mixtures to ensure long-term performance. Improving and prioritizing concrete pavement durability also meshes well with the principles and goals of pavement preservation, making it easier for agencies to maintain the condition of their concrete pavements over time.

Concrete Pavement Restoration with Partial Depth Repair

Gordy Bruhn Minnesota DOT

Top-down Spalling of joints in PCCP, largely caused by aggressive deicing agents containing Magnesium and Calcium Chlorides that were deployed during the past two decades, have been effectively restored using a Partial Depth Repair (PDR) process developed by MnDOT several years ago. Through the national network of industry and agency technical practitioners, other state and local agencies have adopted and deployed the MnDOT PDR process into their programs. In the meantime, significant research performed during the last decade has shed light on why the damage occurred in the first place. This led to recommended adjustments to traditional concrete mixes for new PCCP, and they have performed well while minimizing the occurrence of deicer-borne joint deterioration. As a result, the occurrence of premature joint damage has significantly declined and this PDR process has proven effective in restoring and extending the service life of those pavements that were built prior to the mix design changes mentioned above. Gordon "Gordy" Bruhn of MnDOT will share the story of this PDR process; how to prepare and place the repair, why it works, best practices for optimum service life, and contracting "do's and don'ts" to consider.

NTPEP Test Deck Performance

Katheryn Malusky NTPEP

AASHTO's Product Evaluation & Audit Solutions Program (formerly NTPEP) conducts field and laboratory evaluations for High Friction and Thin Overlays (HFTO). Katheryn will explain the laboratory and field testing conducted for these products. She will then describe how AASHTO members utilize these test results to populate their Approved Product Lists (APL) and Qualified Producer Lists (QPL).

Environmental Product Declarations - HMA Treatments

Andrew Braham University of Arkansas

The Pavement Preservation and Recycling Alliance, or PPRA, is working toward developing Environmental Product Declarations, or EPDs, for various pavement maintenance and rehabilitation treatments. The Asphalt Emulsion Manufacturing Association, or AEMA, is developing eight, national average EPDs for asphalt emulsions. Concurrently, the International Slurry Surfacing Association, or ISSA, has begun discussions on developing EPDs for preservation surface treatments. In addition, the Asphalt Reclaiming and Recycling Association, or ARRA, has begun discussion on developing EPDs for the various asphalt recycling treatments. This is a fast moving area, and a full and current update will be provided on AEMA, ISSA, and ARRA's progress to date.

Environmental Product Declarations - Concrete Treatments

Brian Killingsworth NRMCA

In 2022, the passage of the Inflation Reduction Act set aside monies for federal agencies to procure low carbon construction materials and assist material producers with measuring their environmental impacts through Environmental Product Declarations (EPDs). The cement and concrete industries have actively pursued development of EPDs for several years and are actively engaged with both public and private market stakeholders to be able to meet their needs. Specifically, it is critically important to establish baselines so that all stakeholders understand how improvements may be made. To that end, the cement and concrete industries have developed industry wide average EPDs and for concrete regional benchmarks have also been established. This presentation will cover each of these aspects and provide current developments.

Delaware Office of Sustainability

Jim Pappas Delaware DOT

As the lowest lying state in the nation, Delaware is all too familiar with the effects of climate change and sea level rise on the infrastructure. To address this access concern, the Department has initiated several short-term projects to raise several key roadways across the state. These projects are using pervious pavements to not only raise the roadway but also allow water to go through the pavements. Based upon our research, this is a use of pervious pavements that has not been used too often so we are very interested to evaluate performance over time of this innovative pavement solution.

NCHRP 14-43 Guide Specs for CIR and CCPR

Brian Diefenderfer Virginia Transportation Research Council

This presentation will provide insight into the development of the Draft AASHTO Construction Guide Specifications for Cold In-place Recycling (CIR) and Cold Central Plant Recycling (CCPR) of asphalt mixtures. An overview of the survey results, general takeaways from in depth interviews with experienced agencies and practitioners, specification overview, and specific frequently asked questions will be provided.

NCHRP 9-62, Rapid Tests and Specifications for Construction of Asphalt-Treated Cold Recycled Pavements

Brian Diefenderfer Virginia Transportation Research Council

The goal of the NCHRP 9-62 study was to develop a set of rapid field tests to assess asphalt-based CIR, CCPR, and FDR materials for time to opening to traffic and surfacing and specifications for their use. This presentation will describe the work undertaken to develop these tests including work in both the laboratory and on field projects.

Optimizing Design Decisions And Construction Procedures For Full-Depth Pavement Recycling

David Jones UC Davis

Full-depth recycling (or reclamation) is a rapid, cost-effective strategy for pavement rehabilitation. Like any other rehabilitation strategy, the project needs to be investigated, a design that will support the anticipated traffic needs to be prepared, and an appropriate recycling strategy (recycling depth, recycling agent type, and surfacing type and thickness) . This presentation will summarize published guidance, based on national and international research, covering project investigation, choice of recycling strategy, choice of recycling agent (bituminous or cementitious), mix design procedures, and shrinkage crack mitigation on projects using cement as the recycling/stabilizing agent.

Characterizing Cold Recycled Pavements from Field-Sampled Cores

Megan Yount Heritage

Replicating field-placed Cold In-place Recycled (CIR) and Cold Central Plant Recycled (CCPR) pavements with lab-produced mixtures may not accurately capture field conditions during construction, exact material proportions, or compaction effort. These factors often influence the resulting mixture properties, causing uncertainty that lab-produced mixtures reflect that of the in-situ pavement mixture. Examples from two State DOT projects will be reviewed, followed by a discussion of results from tests including Dynamic Modulus, Marshall Stability, and Indirect Tensile Strength Testing.

TUESDAY SEPTEMBER 19 – ADVANCING THE PRACTICE TECHNICAL TRACK

Workforce Development

Gary Houston Valero

Attracting and retaining new employees is a challenge for all industries in the 21st century as young people have had different experiences which have shaped their career expectations. This presentation will provide insight into their journey and help companies assess their own efforts to interest these potential candidates, and it will provide some thoughts on how to increase the value

of the new recruits quicker and more reliably. The pavement preservation industry is full of great WorkFamilies who can bring these new employees in and develop them to the levels of expertise and commitment needed.

CCPIC Training Program

Gary Hicks CPPC

Civil engineers often graduate having little or no academic preparation in concrete or asphalt pavement materials and construction. Inspectors, material testing technicians, and others in support roles often have limited or no academic preparation. City and County Directors of Public Works and others in management positions may not be directly involved in pavement management decisions. As sustainability becomes increasingly important at the City and County level, so does the importance of effective pavement management. The CCPIC offers two certificate programs, Pavement Engineering and Management, and Pavement Construction Inspection, intended to bolster the knowledge of City and County staff involved in their pavement-related programs. This presentation will discuss these certificate programs along with other services the CCPIC provides.

Workforce Development Strategies

Kierstin Janik Heritage Construction and Materials

Recruiting, retention, and labor woes are plaguing so many industries and organizations across the country – And leaders are seeing the need to improve their access to a qualified and available workforce. Workforce development is a multi-faceted strategy and can be daunting for organizations to begin thinking about how to wrap their arms around it. This presentation will give an overview of a circular framework for workforce development, with a deep dive into assessing available workforce and using this information to enhance your employer brand and recruitment strategies.

Pavement Preservation College Curriculum

Andrew Braham University of Arkansas

The University of Arkansas has developed a semester-long project that explores all of the maintenance and rehabilitation treatments on RoadResource.org, and leverages the calculators available. Network data and maintenance budget data from the Arkansas Department of Transportation is used to provide a real-world framework, and traditional maintenance and rehabilitation treatments (e.g. mill and fill, remove and replace) are compared to "innovative" treatments. In addition, the final portion of the project now uses the National Center for Asphalt Technology's (NCAT) pavement preservation website, so the students can tie together the hypothetical treatment life found on RoadResource.org, with actual treatment performance on Lee Road 159. This introduces real-life variability in performance of treatments, and emphasizes the importance of placing the right treatment on the right road at the right time.

NCHRP 9-63 National Performance Spec for Emulsified Asphalt Binder

Mike Anderson Asphalt Institute

As the demand for pavement preservation has increased, user agencies and industry partners have been increasingly interested in moving toward the development and implementation of performance-related specifications for asphalt emulsions used in chip seal and micro surfacing/slurry seal applications. Research has been ongoing to refine draft specifications advanced by other researchers and the AASHTO TSP·2 Emulsion Task Force and validate the parameters that are related to the expected performance of those surface treatments. The objective of the ongoing research is to develop a national performance-related material specification for emulsified asphalt binder for use with chip seals and micro surfacing/slurry seals.

NCHRP 20-44 Implementing Construction Guide Specs

Rex Eberly NCPP

Introduce the new AASHTO Pavement Preservation Guide Specifications and QA Guidelines. Provide implementation ideas to help agencies take advantage of these new tools.

Polymer Modified Slurry Seal A115 Spec

Chuck Ingram ISSA

This presentation will begin with a review of the traditional Slurry Surfacing options (Slurry Seal and Micro Surfacing) and where these applications are used most. We will compare the benefits of both of those treatments and identify reasons to develop a new specification for a treatment that can exceed the limits of a traditional Slurry while providing many of the benefits of Micro Surfacing. Many agencies as well as contractors have been satisfied in the past with the performance of Slurry Seal and now are looking for added performance but do not have the high traffic volumes that typically would require placement of Micro Surfacing. We will look at the physical material requirements, relative cure times and unique performance characteristics of Polymer Modified Slurry Seal and identify where it can be most useful as a Preventive Maintenance application including actual project results.

Development of an SPS-2 Pavement Preservation Experiment

Kevin Senn NCE

Transportation Pooled Fund (TPF) Study 5(291), Development of an SPS-2 Pavement Preservation Experiment, was led by the Washington State Department of Transportation and also included Arizona, California, Colorado, Georgia, Kansas, and North Carolina. NCE was selected to conduct the project work, commencing that November 2015. TPF-5(291) experienced several changes over time, including retirements and moving into new organizational roles amongst the original TAC members, before concluding in late 2021. This presentation will provide a project overview, share the multiple activities and analyses conducted between 2015-2021. These include developing a pavement presentation experiment, comparing actual performance after 20 years to predictions from the PMED software, and conducting a series of Tech Days at SPS-2 projects across the country. The TPF website contains full reports as mentioned in the presentation: https://www.pooledfund.org/Details/Study/533.

Pavement Preservation Academy

Ding Cheng CPPC

As part of the Senate Bill 1 (SB-1) funding through the California State University, CSU, Transportation Consortium headed up by Mineta Transportation Institute (MTI) in San Jose State University, the California Pavement Preservation Center (CP2C) developed a certificate program in pavement preservation, via The Pavement Preservation Academy (PPA), in 2020. The purpose of the PPA is to help state and local agencies improve the design and construction of pavement preservation

treatments and develop a workforce to utilize the latest pavement preservation technologies. Through training, the Academy empowers local agency staff and contractors to select the right treatment for the right road at the right time in order to optimize funding. When properly designed and constructed, these preservation treatments can be a cost-effective tool to improve life cycle cost benefits.

Preservation and Pavement Management Training for Small Agencies

Travis Walbeck NCAT

Many small agencies are tasked with juggling many competing priorities with limited staff. This leads to staff members being required to serve as the local experts for several different disciplines. In an effort to assist small and local agencies training has been developed to simplify pavement condition collection, pavement management efforts, and pavement preservation decision-making. This presentation discusses some of those training efforts, discusses ways that small agency staff can be engaged with simplified pavement management, and how the principles can be delivered.

Sustainable Pavements Program

Migdalia Carrion FHWA

For more than 10 years, FHWA has been working to encourage infrastructure sustainability, including quantification of environmental impacts through the use of lifecycle assessment and environmental product declarations (EPDs). The FHWA's SPP

for the past year has been working on programs such as FHWA's Climate Challenge, Low-Carbon Materials Grant Program authorized in the Inflation Reduction Act, and FHWA Every Day Counts Program's innovation; EPDs for Sustainable Project Delivery. The presentation will provide an update in key sustainable programs/initiative for the benefit of the audience.

Reducing the Carbon Footprint of Concrete Pavements Through Preservation

Tom Van Dam NCE

Concrete pavement are known for their longevity, routinely providing decades of service with the need for little repair or rehabilitation. But they benefit from routine preservation including diamond grinding, that restores ride quality, friction, and reduces noise generated through vehicle-pavement interaction. Diamond grinding has added benefits by reducing the greenhouse gas (GHG) emissions. The largest reduction is due to the reduced fuel consumption incurred by vehicles operating on a smoother pavement. But diamond grinding an old, carbonated concrete surface also results in additional carbonation as the freshly exposed hydrated cement paste sequesters atmospheric CO2. The additional carbonation that occurs as a result of diamond grinding is almost equivalent to the emissions generated from the grinding operations making diamond grinding close to a net-zero GHG preservation treatment.

Environmentally Beneficial Paving Additives

Michael Durante Pavement Technology, Inc

The recent "Climate Challenge" pronouncements from the Federal Highway Administration (FHWA) all but ensure that Environmental Product Declarations (EPDs) are the future for the paving construction industry. Recent developments combining traditional pavement preservation solutions with titanium dioxide (TiO2) additives have shown great promise in addressing paving construction emissions reductions and offsets. Designed to be an economical, yet robust "retrofit" technology for existing transportation infrastructure, TiO2 additions transform concrete pavements into supernatural carbon sinks that are capable of offsetting 50% or more of embodied emissions and meet current concrete industry EPD product category rules (PCRs).

TUESDAY SEPTEMBER 19 – DATA AND ANALYSIS TECHNICAL TRACK

PCI vs. Individual Distresses

David Peshkin AP Tech

The Pavement Condition Index (PCI) and other composite indices summarize pavement conditions in a single value. Individual distresses such as different types of cracking or surface irregularities, on the other hand, typically reflect a singular condition. This presentation discusses some of the commonly used pavement condition indices and how they are used by managers in preservation and rehabilitation decisions, and also takes a closer look at individual pavement distresses and what they can tell the roadway manager.

Washington DOT State of the Practice

Karen Strauss Washington DOT

This presentation will provide WSDOT's perspective on pavement management. Karen will talk about the history of their system and how it came to be, as well as how our funding works. She'll talk about the system they use to collect and analyze data and rate their pavements. She'll talk about some of the programs unique to WSDOT that have helped us be successful during meager funding years such as their strategic maintenance program. And she'll show some maps and data of what their system looks like and what they think it will look like with current funding trends.

Pavement Data Management and Decision Making

Magdy Mikhail Trimble

Advanced Analytics of Pavement Management Systems (PMS) allow agencies to apply the right treatment at the right time at the right location. The PMS need several information to achieve this goal, like location referencing systems, pavement condition data, inventory data, work history, deterioration models and decision trees for analysis. The presentation will discuss the different ways of getting all this information and the possible different types of analysis and scenarios that can be done using PMS to help agencies save money.

Pavement Management FHWA Perspective

Jason Dietz FHWA

Systematic management of pavements has become increasingly important as pavements continue to age and deteriorate, and funding levels have decreased due to reduced funding or increased competition for funds. The use of pavement management system process includes a series of steps that will help the user analyze work plan alternatives for generating roadway investment decisions.

UDOT Perspective on Pavement Management Data

Jason Simmons Utah DOT

Jason Simmons, the UDOT Statewide Pavement Engineer, will discuss how UDOT's link between pavement management data and pavement preservation. He will briefly discuss how UDOT uses pavement management data to aid in the selection of pavement preservation projects. He will also discuss how UDOT is attempting to use pavement management data to determine preservation treatment life. The pavement preservation treatment life will be used to determine treatment resets, update treatment selection decision trees and evaluate spec changes.

I-77 Corridor Pavement Management Case-study

Neil Mastin Mott Macdonald

In July of 2014, the NCDOT entered into a comprehensive agreement with I-77 Mobility Partners LLC (Developer) as a public-private partnership to leverage private funding to build and open two express lanes added in each direction along I-77 in the Charlotte metro area. Mott MacDonald is acting as a third-party agent to undertake annual detailed inspections of the pavement within the project right-of-way, including both toll lanes and NCDOT maintained lanes. Inspections will be carried out annually for all pavements. The corridor will be monitored over an initial 5-year period. The Mott MacDonald team will implement a pavement management system with the capability of lane-specific modeling and predictive analysis which will be used to forecast future performance of the pavement within the corridor based upon planned NCDOT renewal investments and required developer one- and five-year work plans.

Enhancing New Hampshire's Road Infrastructure Management Through SADES RSMS: A GIS-Based Road Surface Condition Assessment and Forecasting Program

Chris Dowd

Effective road infrastructure management is crucial for maintaining safe and efficient transportation networks. The State of New Hampshire has developed an innovative Geographic Information System (GIS)-based road surface condition assessment program known as SADES RSMS (Statewide Asset Data Exchange System Road Surface Management System). This program empowers both local and regional agencies with the tools to comprehensively assess, analyze, and strategically plan repairs for their respective paved road networks. As transportation infrastructure continues to be a critical component of economic development and public safety, SADES RSMS stands as a pioneering solution that empowers local agencies to make informed decisions, allocate resources effectively, and ensure the longevity of New Hampshire's road systems for years to come.

Relationship Between IRI and Vehicle Dynamic Response to Road Roughness

Steve Karamiihas University of Michigan

Several misconceptions persist about the International Roughness Index (IRI). In particular, many pavement engineers believe that the Golden Car model and its input parameters correspond to a specific out-of-date automobile suspension system. This corresponds to a classical misconception that the IRI is based on a 1960s Chevrolet Impala. This presentation provides education materials related to the relationship between the IRI and the dynamics of modern vehicles. The presentation explains the original methodology and philosophy behind the IRI, the relationship between the IRI and more detailed vehicle models, and the relevance of the IRI to modern automobiles and trucks. Theoretical and analytical demonstrations are used to help with conceptual explanations, and field measurements are used to provide examples that lend credibility. The presentation also addresses a few common special cases, such as tuning and wheelbase filtered responses to period roughness.

Surface Characteristics

John Senger Illinois DOT

"Pavement surface characteristics are essential to the traveling public's comfort, confidence, and safety. These surface attributes are often used for pavement evaluation to determine pavement health and estimate timing for maintenance or rehabilitation. This presentation will discuss four major areas of pavement surface characteristics and pavement preservation's effect on these attributes."

Friction Characteristics

Dave Merritt Transtec Group

Pavement friction is a critical factor affecting roadway safety, but not always a top consideration for pavement design and construction. While the roadway safety community has traditionally focused on factors that can be used to reduce crashes related to driver error, such as signage, striping, site distance, and many other factors, the pavement community typically assumes that the use of approved material sources and prescribed construction practices will result in a pavement surface with adequate friction. Fortunately, in recent years there has been more collaboration between roadway safety and pavement communities to help ensure that pavement friction is considered in pavement surface decision making processes in order to improve roadway safety. This presentation will provide some basic information on the importance of pavement friction as it relates to roadway safety, how it's measured and monitored, and the impact of materials and construction on friction performance over time.

Maine DOT Data Collection and Analysis

James Havu Maine DOT

Maine DOT was an early adopter of automated pavement condition data collection and pavement life cycle cost analysis. The Highway Management group at Maine DOT processes and analyzes pavement condition data annually and assists in programming pavement preservation projects. Annually Maine DOT publishes a three year Work Plan that includes pavement preservation projects of built higher priority corridors. These projects are compiled in a few ways, including life cycle cost analysis tools, corridor management lists, and region recommendations. Each candidate is field reviewed by DOT staff representing different Bureaus and Programs to select the best projects for the Work Plan. Light treatments (<1 inch) are selected one year before treatment, and heavy treatments (>1 inch, mill and fill, rehabilitation) are selected three years before treatment. This cycle is repeated annually to assure that these treatments are done at the ideal time.

Indiana DOT 20 Year Plan

Jason Lowther Indiana DOT

One of INDOT's areas of focus in its strategic goals is the commitment to excellence regarding core services delivery. More specifically, INDOT is committed to deliver on its 20-Year Plan commitments, prioritizing investments in such a way to take care of what we have while fostering a culture of excellence in core processes and procedures. With this goal in mind, INDOT's Pavement Management division is principally focused on developing and maintaining INDOT's Next Level Roads plan. This plan effectively leverages both maintenance and capital investments to keep INDOT's assets in a state of good repair.

InfoPave System

Jane Jiang FHWA

The Long-Term Pavement Performance (LTPP) program studies the performance of in-service pavements. Researchers have been collecting pavement performance data using standard data collection procedures and protocols on a variety of pavement types since 1992. Over the years, the program has accumulated a vast repository of research-quality data, extensive documentation, and related tools. The LTPP data and information are available via the Web through the data portal system, LTPP InfoPave™. This presentation demonstrates how to access and download LTPP data, as well as the major features of the LTPP InfoPave web portal. LTPP InfoPave includes creative tools for data viewing, identification, and selection that helps users create their own personalized data sets, summary reports, queries, and much more.

WEDNESDAY SEPTEMBER 20 – PLENARY

NCAT Preservation Field Test Findings

Adriana Vargas NCAT

The Pavement Preservation Group (PG) Study is a long-term research effort that has been ongoing since 2012. In the Southern part of the study, the National Center for Asphalt Technology (NCAT) has been monitoring the performance and life-extending benefits of various pavement preservation treatments applied to low and high-traffic volume roadways in Alabama. This presentation summarizes the findings from the test sections in the study that are subjected to wet-no freeze climate.

MnROAD Preservation Field Test Findings

Jerry Geib Minnesota DOT

Get the latest results on the pavement performance for the test sections built in 2016. Over 40 pavement treatments were applied to both a high volume and a low volume road in central MN.

Impacts of Local Agency Efforts in Pavement Asset Management

Pat Conner Indiana LTAP

Since the last National NCPP Conference in Nashville, TN there has been a dramatic change in landscape across Indiana and all the local agencies. In this presentation you will learn not only how transportation funding has changed but the role statewide pavement conditions, asset management, pavement preservation, and data driven decisions has played in it all.

THURSDAY SEPTEMBER 21 – PLENARY

Pavement Preservation Pooled Fund (PG3) Future

Ben Worel Minnesota DOT

This pooled-fund study will support state highway agencies (SHAs) and other Local Public Agencies (LPAs) by improving the application and quality of PM treatments on their pavements under live traffic conditions. The study will also provide guidance and funding to SHAs and LPAs in an effort to standardize or harmonize treatment strategies, address implementation efforts, and develop best construction practices utilizing their existing specifications or available AASHTO standards. For the study to be valuable, documentation of pretreatment pavement condition is critical along with monitoring of post treatment performance. The study will use established and proven data collection procedures such as those from the Long-Term Pavement Performance (LTPP) program to monitor the PM treatments. This data will be available to the public through an online system (e.g. LTPP InfoPave™ web portal).

FHWA Preservation Strategic Plan

Jason Dietz FHWA

Stewards and owners of roadways need to become more strategic by adopting and implementing systematic processes for pavement preservation as an integral component of their overall management of roadway assets. FHWA will continue to raise awareness of proven strategies, such as performance-based practical design, and the use of preservation techniques to cost-effectively extend the service life of transportation assets that could further improve investment decision-making.

FP2 Vision Ahead

Rick Church FP2

FP2 – leading the advancement of pavement preservation. This session will serve to update attendees on important activities FP2 is undertaking to Advocate on behalf of pavement preservation industry; Educate agency decision makers on the value of pavement preservation; Advance pavement preservation innovation, research and implementation; and Communicate with all relevant audiences about the value of pavement preservation and FP2.

Ask the Expert Panel Discussion

Larry Scofield, Buzz Powell, Tracy Nowaczyk, Tim Harrawood, Jason Dietz

This session will feature representatives from a DOT, Contractor, and both the Asphalt and Concrete preservation industry. The panel will discuss, from each perspective, what successes they have and what challenges they are experiencing. Audience participation is encouraged!

Regional Partnership Updates

Rob Green, Michigan DOT; Steve Norton, Connecticut DOT;
Kevin Robertson, Arizona DOT; Chade Shive, Kentucky TC

The presentation will give a brief overview of the four Regional Pavement Preservation Partnerships, highlighting the unique characteristics, challenges, and opportunities that each face. The recent activities and future plans of the partnerships will also be shared. Finally, attendees will be encouraged to stay involved in the partnerships, and to mark their calendars for the 2024 regional meetings!

Closing Remarks

Gary Hicks CPPC

This session will wrap up our conference. We will discuss the history of pavement preservation, how the partnerships have evolved, and where we need to go moving forward.

Thank you!

The National Center for Pavement Preservation would like to say a resounding Thank you! to all of the outstanding speakers, sponsors, exhibitors, and conference attendees. Your support and presence have truly made this conference a great success and a landmark event!

ncpp
National Center for Pavement Preservation

MICHIGAN STATE
UNIVERSITY