

NORTH DAKOTA ASPHALT CONFERENCE

APRIL 6-7, 2021

VIRTUAL
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NDSU

UPPER GREAT PLAINS
TRANSPORTATION INSTITUTE
NORTH DAKOTA LOCAL TECHNICAL ASSISTANCE PROGRAM

A SPECIAL WELCOME TO FIRST-TIME ATTENDEES

We are pleased you've decided to attend your first ND Asphalt conference. The agenda is full of educational opportunities and you will have plenty of time to network with experts in the asphalt industry.

A BIG THANK YOU TO OUR SPONSORS

This conference simply could not happen if it weren't for our generous sponsors. If you see one of our sponsors, be sure to thank them for their support of the ND Asphalt Conference.

QUESTIONS, COMMENTS AND FEEDBACK

If you have any questions, please contact NDLTAP by email at ndltap@ugpti.org and we will do our best to get them answered.

After the conference, a conference evaluation will be sent to you by email and will be available online at www.ndltap.org/events/asphalt. This is your conference and we want to be sure it is meeting your expectations.



All presentations will be available on the NDLTAP website after the conference, www.ndltap.org/events/asphalt

This conference is coordinated and sponsored by the North Dakota Local Technical Assistance Program (a program under Upper Great Plains Transportation Institute, North Dakota State University), North Dakota Department of Transportation, Dakota Asphalt Pavement Association, and Associated General Contractors of North Dakota.



UPPER GREAT PLAINS
TRANSPORTATION INSTITUTE
NORTH DAKOTA LOCAL TECHNICAL ASSISTANCE PROGRAM

Cover photo credit: Shane Biggs, Bowman County Highway Superintendent
Project: Bowman County 172nd Ave. SW (Camp Crook Road)

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CONFERENCE AGENDA

TUESDAY, APRIL 6, 2021
MORNING SESSION #1

- 9:00 – 9:05 AM (CT) **Moderator** – Terry Maier, Team Laboratory Chemical Corp.
- 9:05 – 9:20 **Success Begins with Us**
Bill Panos, NDDOT Director
- 9:20 – 9:30 **Learn, Evolve, Implement and SUCCEED**
Dale Heglund, ND Local Technical Assistance Program
- 9:30 – 10:15 **RAP Use in Nebraska**
Robert Rea, Nebraska DOT
- 10:15 – 10:30 Coffee break with the sponsors
- 10:30 – 10:40 **UND Senior Design Project Overview**
Amy Beise, NDDOT
Curt Dunn, NDDOT
Andy Ayash, NDDOT
- 10:40 – 11:15 **Using Thermal Imaging and IC Data for Quality Control**
Todd Mansell, Caterpillar

CONFERENCE AGENDA

TUESDAY, APRIL 6, 2021
AFTERNOON SESSION #2

- 2:00 – 2:05 PM (CT) **Moderator** – Carey Burke, Associated General Contractors
- 2:05 – 2:50 **Safety Focus – Night Time Paving**
Jack Kolberg, Associated General Contractors of ND
- 2:50 – 3:10 **Old Concepts, New Momentum**
Josh Loegering, Lamoure County
- 3:10 – 3:25 Coffee break with the sponsors
- 3:25 – 3:55 **Smart Paving, Rolling Density Meter, A TLN Plug**
Bryce Wuori, Wuori Consulting
- 3:55 – 4:05 **2020 Ride Awards**
Ken Swedeen and Matt Linneman
- 4:05 – 4:30 **National Award – Perpetual Pavement Award to NDDOT**
Curt Dunn – District Materials Coordinator, NDDOT
Lee Potter – FHWA North Dakota Division Administrator
Pete Grass – Asphalt Institute, President
Amy Miller – Asphalt Pavement Alliance
Director William T. Panos – NDDOT



Welcome and Introduction of Dais • Dale Heglund

Background of ND Highway 5 and Road Data Review • Curt Dunn

FHWA video – Asphalt Pavement Principles: Long-Life Pavements • Lee Potter

Asphalt Institute • Pete Grass

Background of the PPA Program and Presentation of the Award • Amy Miller

NDDOT Acceptance • Director Panos

Adjournment • Dale Heglund

Dignitaries:

Amy Miller, National Director, Asphalt Pavement Alliance

Director William T. Panos, NDDOT

Lee Potter, FHWA North Dakota Division Administrator

Curt Dunn, District Materials Coordinator, Grand Forks District, NDDOT

Rick Kendall, Maintenance Area Supervisor, Grand Forks District, NDDOT

Ed Pavlish, District Engineer, Grand Forks District, NDDOT

Ron Henke, Deputy Director of Engineering, NDDOT

Wayde Swenson, Director of Office of Operations, NDDOT

Matt Linneman, State Materials & Research Engineer, NDDOT

Amy Beise, NDDOT Materials & Research

Dan Thompson, Border States Paving, Inc., ND State Director and National BOD
National Asphalt Paving Association

Ken Swedeen, Executive Director - Dakota Asphalt Pavement Association

Peter T. Grass, Asphalt Institute, President

Scott House, Asphalt Institute, Chairman of the Board

Mark Blow, Asphalt Institute, Regional Engineer

Jeremy Holt, Anderson Western Inc., President-Dakota Asphalt Pavement Association

Moderator: Dale Heglund, Director-NDLTAP

CONFERENCE AGENDA

WEDNESDAY, APRIL 7, 2021
MORNING SESSION #3

- 9:00 – 9:05 AM (CT) **Moderator** – David Ferrell, North Dakota Division of FHWA
- 9:05 – 9:35 **Seal Coat Designs**
Gill Hedman
South Dakota Local Technical Assistance Program
- 9:35 – 9:45 **High Friction Surface Treatment (HFST)**
Jana Hennessy, Mountrail County
- 9:45 – 10:00 Coffee break with the sponsors
- 10:00 – 10:40 **NDLTAP Pavement Preservation Outreach**
BOOTS ON THE GROUND
Tom Wood, Astech
Gerard Feist, NDLTAP
- 10:40 – 11:15 **Developing Pavement Strategies Using**
ROAD RESOURCE.ORG
Dan Wegman, WEGS/Braun Intertec

2020 ND RIDE QUALITY AWARDS

	PROJECT #	PCN	CONTRACTOR	AVERAGE MRI
1 st	SS-X-5-008(050)113	21856	Northern Improvement	33.6
2 nd	NH-NHU-1-083(125)089	21627	Knife River	36.1
	NH-NHU-1-083(098)089	17378		37.0
3 rd	SS-X-7-073(013)000	22329	Border States	37.1

2021 ND Asphalt Planning Committee

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Stephanie Weigel	sjweigel@nd.gov

SPEAKER BIOS

Andy Ayash

Andy Ayash is a research and pavement design engineer with the NDDOT. Before joining the DOT, he worked for several years as a project engineer and enjoys applying his construction background to relevant and practical research projects. He is a professional engineer and a graduate of NDSU with a bachelor's degree in civil engineering.

Amy Beise

Amy Beise is team lead for research and pavement design at the NDDOT. She oversees the operations of the research program, issuance of concrete & bituminous thickness recommendations, falling weight deflectometer data collection, and pavement profiling. Amy's goals for research within the NDDOT are to identify the state's greatest transportation research needs and promote implementable, cost-saving solutions. Amy has bachelor's and master's degrees in civil engineering from North Dakota State University.

Carey Burke

Carey is the Director of Marketing & Member Services for the Associated General Contractors (AGC) of North Dakota. Prior to joining the AGC in 2018, Carey had been an active member of the construction industry in North Dakota for more than 22 years.

Curt Dunn

Curt Dunn is the highway material coordinator with NDDOT in the Grand Forks District. He earned a bachelor's degree in civil engineering from the University of North Dakota and began his career with NDDOT in 1995. Curt is a registered professional engineer and has taught soil certification classes for the department. Curt serves on the ND Asphalt Steering Committee, the Transportation Research Innovation Program, and the Research Advisory Committee. He also serves on several study groups researching topics such as intelligent compaction and percent within limits specifications.

Gerard Feist

Gerard Feist is the NDLTAP Asphalt Expert, providing on-site asphalt and equipment maintenance outreach. For the past 17 years, Gerard has led a wide array of asphalt roadway repair and preventive maintenance efforts. Gerard has extensive knowledge in the areas of crack sealing, routing cracks, rubberizing cracks, cold mix patching, spray patching, complete overlays, new paving of roads, and pot hole repair. He has worked on rural roads, streets, and parking lots and is well versed in equipment maintenance. His background allows him to provide exceptional service for streets and roads across North Dakota.

David Ferrell

David Ferrell became the Safety and Traffic Operations Engineer for the North Dakota Division Office in January 2014. In this position, he is responsible for the Safety and Operations programs for North Dakota Department of Transportation (NDDOT) including the HSIP, SHSP and ITS programs. He also provides customer service for all the North Dakota transportation stakeholders. Mr. Ferrell has his BS in Civil Engineering from Mississippi State University.

Gill Hedman

Gill Hedman retired from the South Dakota DOT in 2017 with 25 years as Surfacing Design Engineer specializing in Pavement Design, Pavement Rehabilitation, and Pavement Preservation. He is a graduate of South Dakota School of Mines and Technology in 1975 with a civil engineering degree and has been working as a Technical Assistance Provider with SDLTAP since July 2017.

Jana Hennessy

Jana Hennessy is the Mountrail County Engineer and has held that position since 2013. Jana received her Masters Degree in Mechanical Engineering from the University of West Bohemia in 2003 in the Czech Republic prior to relocating to North Dakota in 2004. As the Mountrail County Engineer Jana leads a large department overseeing over 1600 miles of roadway maintenance. Over the last eight years Jana and her team have faced many challenges due to both a robust agricultural area as well as increased oil activity.

SPEAKER BIOS continued

Dale C. Heglund

Dale is director of the North Dakota Local Technical Assistance Program, a part of the Upper Great Plains Transportation Institute at North Dakota State University. Heglund says he is grateful for the opportunity to share experiences from the past 40 or more years to help North Dakota's transportation leaders transcend their normal high-water mark of learning.

Jack Kolberg

Jack Kolberg is a Safety Consultant with The Associated General Contractors of ND. Jack semi-retired from Northern Improvement Company after 27 years serving as a Vice President and Safety Manager where he helped guide Northern to numerous National Safety Awards recognizing NIC as one of the "Safest" companies in the U.S. Jack's experience brings a real world perspective as a safety trainer for the AGC of ND.

Matt Linneman

Matt is the materials & research engineer for the North Dakota Department of Transportation. He improves and maintains the quality highways and bridges in a cost-effective manner through the innovative use of materials. Matt previously worked in the NDDOT Environmental & Transportations Services Division and in the design section of the DOT Support Center at North Dakota State University. Matt earned a bachelor's degree in civil engineering and a master's of business administration from NDSU.

Josh Loegering

Josh Loegering is currently the Highway Superintendent/Engineer for LaMoure County. He started working for LaMoure County in 2018. Before working for the county, Josh was with the NDDOT Traffic Operations Section in Bismarck for 5 years and then with KLJ for 5 years. Josh has experience in traffic signal and ITS design, highway safety projects and all types of county and city construction projects. Josh is a graduate of NDSU with a B.S. in civil engineering.

Terry Maier

Terry Maier is the president of Team Laboratory Chemical Corp. Inc. (TeamLab), having started with the company in 1984. He served as sales manager until 2003 when he and his wife purchased the company, which is the manufacturer of its patented base stabilizer Base One, which increases the strength of paved roads and the durability of gravel and dirt roads. Located in Detroit Lakes, MN, TeamLab develops a variety of specialized products for multiple industries.

Todd Mansell

Todd has been in the asphalt paving and construction business for over 30 years, working as an asphalt laboratory and field technician, lab manager, field inspector and quality control manager for both government and private employers. Todd currently is the Product Application Specialist with Caterpillar Global Paving in Maple Grove, Minnesota. Todd prepares and delivers classroom and field paving and compaction training for Caterpillar customers worldwide.

Bill Panos

Governor Doug Burgum appointed William T. "Bill" Panos to lead the North Dakota Department of Transportation (NDDOT) in August 2019.

Panos serves on the board of directors for the American Association of State Highway and Transportation Officials. In addition, he serves as vice president of the Western Association of State Highway and Transportation Officials. The organization represents 18 DOT's from western states that work together on national issues that support efficient and effective transportation systems.

Panos previously served as Director of the Wyoming Department of Transportation from 2015 to 2019 and as director of the Wyoming Department of School Facilities from 2013 to 2015. Prior to moving to Wyoming, he gained 37 years of experience in leading private and public sector organizations.

SPEAKER BIOS continued

Robert Rea

Robert current works for the Nebraska Department of Transportation as a Flexible Pavements and Quality Assurance Engineer. He is a University of Nebraska – Lincoln graduate. He has focused much of his last 15 years in areas of research and design of asphalt pavement mixes with high RAP contents and recycling agents containing rejuvenators, softeners, and antioxidants to promote extreme long term aging resistance. He has served on many NCHRP technical panels.

Ken Swedeon

Ken became the executive director of the Dakota Asphalt Pavement Association in 2001. Prior to earning his bachelor's degree in civil engineer from South Dakota State University he worked on various highway construction projects in Montana and Wyoming. He began his engineering career with Texaco, Inc., as a project engineer in Houston, TX. He then worked for the Wyoming Department of Transportation for 20 years as a materials engineer, a resident engineer in Jackson, WY, and a district maintenance engineer in Casper, WY. He then became the city engineer for the city of Sioux Falls, SD, for two years. Ken also holds a master's degree in business administration from the University of Wyoming.

Dan Wegman

Dan has over 35 years working with pavements. 9 years with MnDOT in Construction and the Bituminous Office, over 20 years with various asphalt material suppliers and 5 years with Braun Intertec. Dan is currently working part time with Braun Intertec and as a pavement consultant (WEGS).

Thomas J. Wood

Mr. Wood has worked in the road construction / maintenance for over 40 years. He has mix of public and private service. The last 20 years he has worked on pavement preservation treatments specialize in emulsion base methods. He also teaches classes for numerous LTAP'S and the National Center for Pavement Preservation. Mr. Wood retired from MnDOT early in July 2016 with over 28 years of service. From 2016 to 2019, Tom worked for WSB & Associations. Tom currently works for ASTECH sharing Pavement Preservation Methods.

Bryce Wuori

Bryce Wuori has always had a passion for construction. In pursuing this passion, he studied construction engineering at North Dakota State University and holds a Master of Project Management. As the proud owner of Wuori Consulting and Developer of *PaveWise™* and *Dynamic Density Design*, Bryce believes technology is the future key to success for the pavement and construction industry.

CONFERENCE ATTENDEES

DAY 1: https://teams.microsoft.com/l/meetup-join/19%3ameeting_MWM4ZjEyNjAtMDBhMi00OGMxLTkxODAtMDdiMDMwNDZiZjUw%40thread.v2/0?context=%7b%22Tid%22%3a%22ec37a091-b9a6-47e5-98d0-903d4a419203%22%2c%22Oid%22%3a%22b8405b21-56d8-4351-914f-1f49072cb2a0%22%2c%22IsBroadcastMeeting%22%3a%22true%7d&btype=a&role=a

DAY 2: https://teams.microsoft.com/l/meetup-join/19%3ameeting_YTAzMWRkODctMWI2Yi00YTA4LTg4YWItN2M3YzJhMTM4MwYw%40thread.v2/0?context=%7b%22Tid%22%3a%22ec37a091-b9a6-47e5-98d0-903d4a419203%22%2c%22Oid%22%3a%22b8405b21-56d8-4351-914f-1f49072cb2a0%22%2c%22IsBroadcastMeeting%22%3a%22true%7d&btype=a&role=a

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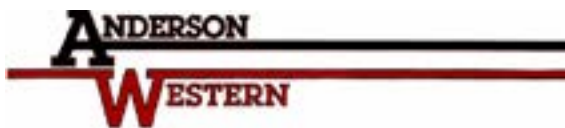
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NDDOT Construction/PD Conference presentation:
[Virtual Construction and Project Development Conference: RAP Chip Seal](#) – YouTube

Transportation Learning Network (TLN) Recorded Webinar – Smart Paving: Using Technology to Improve Quality can be accessed through the TLN Learning Management system (LMS):
<https://tlm.learnflex.net/include/login.asp?url=/users/index.asp>



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SMART PAVING: USING TECHNOLOGY TO IMPROVE QUALITY (TLN# WEB-1189)

DATE: Wednesday, March 10, 2021 **DELIVERY:** Webinar (Zoom)
TIME: 10:00 AM – 12:00 PM CT (9:00 – 11:00 AM MT) **REGISTRATION DEADLINE:** Friday, March 5, 2021

DESCRIPTION: Technology is changing the world. Learn about the many advancements that are being utilized in asphalt paving. Through combined technologies, pavement quality can be greatly enhanced.

- **Proactive vs Reactive Quality Control**
 - What is Reactive Quality Control
 - What is Proactive Quality Control
 - Why Proactive Quality Control is more important than Reactive Quality Control
 - How to implement Proactive Quality Control into Paving Plan
- **Intelligent compaction, mapping success for paving**
 - How Intelligent Compaction can be utilized as a Proactive Quality Control Tool
 - What Intelligent Compaction will do for operators and managers
 - How Intelligent Compaction eliminates errors in the field
 - Best applications for Intelligent Compaction
- **Rolling patterns, creating quality with consistency**
 - Understanding why rolling efficiency is so important in the paving process
 - Consistency is Key! Effective rolling patterns will increase quality
 - Hot or Cold, Best practices for rolling with changing dynamics
 - Examples of Rolling patterns with density results
- **PaveScan 2.0 GPR, dielectric principles**
 - Overview of the PaveScan 2.0 GPR
 - How GPR technology can be used as a Reactive and Proactive quality control tool
 - Looking for Uniformity with the GPR
 - GPR data and how it is used to Improve Quality
- **Coring, a thing of the past?**
 - Random Coring Vs. Scientific Field Data Testing
 - Random Coring Concerns
 - Why Scientific Field Data Testing is more truthful than Random Coring
 - Will Coring ever be eliminated?
- **Influencing factors for ride, quality and life**
 - Ride, Quality and Life, the ripple effect of quality
 - Consistency!!!
 - Elimination of low-density areas of pavement increases life expectation
 - Eliminating Paver Starts and Stops to Improve Ride
 - Best Roller Practices to increase Ride
- **Programs to meld the data and guide construction methods**
 - Pavewise Application
 - Dynamic Variables
 - Constant Variables
- **Future?**
 - Future Equipment
 - Future Methods

TARGET AUDIENCE: Contractors, designers, material testers, specification writers, inspectors and owners. All that work with asphalt paving.

PRESENTER:

Bryce Wuori has always had a passion for construction. Wuori studied construction engineering at North Dakota State University and holds a Master of Project Management. As the proud owner of Wuori Consulting and Developer of PaveWise™ and Dynamic Density Design, Bryce believes technology is the future key to success for the pavement and construction industry.

TRANSPORTATION LEARNING NETWORK
 a collaboration of MDI • NDDOT • SDDOT • WYDOT
 and the Mountain-Plains Consortium Universities

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NOTES

Photo Highlights



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photo credit: Candace Brekke, Ackerman-Estvold



photo credit: Michael May & Ben Aaseth, Interstate Engineering



photo credit: Brian Moser, KLJ Engineering



photo credit: Chad Beggs, NDDOT - Minot District



photo credit: Jen Hanley, Ulteig Engineering



photo credit: Gary Brennan, Brosz Engineering