

2025 New Mexico Transportation and Construction Conference

Las Cruces Convention Center, 680 E University Ave, Las Cruces, NM 88001

Las Cruces New Mexico

April 23-25, 2025

Collaborative Partnerships for Intelligent Transportation Infrastructure

*Success in the Planning, Design, Construction and
Maintenance of Transportation Assets*

<https://engrnm.nmsu.edu/professional-development/conferences/transcon.html>

Hosted by the College of Engineering at New Mexico State University

in collaboration with

New Mexico Department of Transportation (NMDOT); American Planning Association-New Mexico (APA-NM); American Society of Civil Engineers (ASCE)-New Mexico Section; Associated Contractors of New Mexico (ACNM); American Council of Engineering Companies-New Mexico; Federal Highway Administration, New Mexico Division; Asphalt Pavement Association of New Mexico



2025 New Mexico TransCon Conference Co-Chairs:

Craig M. Newton, Ph.D. and Qianyun (Gloria) Zhang, Ph.D., New Mexico State University

Tuesday, April 22, 2025

12:00 p.m. **16th Annual Golf Tournament Fundraiser, NMSU Golf Course**

Organized by the NMDOT District 1 Highway Employees Association (H.E.A.)

Contact: Ami Evans, Ami.Evans@dot.nm.gov



Wednesday, April 23, 2025

8:00 a.m. Sponsor and vendor booth registration and set-up

Room: Hallway

10:00 a.m. Attendee registration opens.

1:00 p.m. **Opening Session**

Room: Exhibit Hall

Moderator: Craig Newton, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

Welcome

Speakers: Craig Newton, Ph.D. and David V. Jauregui, Ph.D., P.E., Interim Dean, NMSU College of Engineering

1:15 p.m. **Opening Remarks from New Mexico's Lieutenant Governor**

Introduction by: Dan Aguirre, P.E., Senior Vice President, Wilson & Company

Speaker: Howie Morales, Ph.D., Lieutenant Governor, State of New Mexico

1:30 p.m. **Opening Remarks from New Mexico's Secretary of Transportation**

Introduction by: Dan Aguirre, P.E., Senior Vice President, Wilson & Company

Speaker: Ricky Serna, Cabinet Secretary, New Mexico Department of Transportation

2:00 p.m. **Update from the American Society of Civil Engineers**

Introduction by: AECOM

Speaker: Thomas W. Smith III, ENV SP, CAE, F.ASCE, Executive Director, American Society of Civil Engineers (ASCE)

2:20 p.m. **Rerouting Route 66 through New Mexico**, a Tribute to the U.S. Route 66 Centennial, 2026

Introduction by: Craig Newton, Ph.D., NM TransCon Chair

Speaker: Roger M. Zimmerman, New Mexico Member, ASCE; National Historical Civil Engineering Landmark Nominating Committee

2:50 p.m. **Announcement: Booth Champions Challenge**

Introduction by: Craig Newton, Ph.D., New Mexico State University

Speaker: Stantec

3:00 p.m. **Break and Vendor Exhibits**

A refreshment station is located outside the ballrooms at the east end of the building.

Room: Hallway

Wednesday, April 23, 2025

3:30 – 5:00 p.m.

Room: Ballroom 1

Track 1: Bridges

Moderators: Kimberly Coleman, P.E., Engineer, Secure Commerce and Border Systems, Sandia National Laboratories;
Seth McVey, Structural Engineer, AECOM

Title 1: *From Plans to Pavement: The 25-Year Journey of the Piñon Hills Boulevard Extension*

Presenters: Sharon Cruz, Program Manager, NMDOT; Kurt Thorson, Sr. Vice President, Traffic & Transportation, Bohannon Huston, Inc.; Scott Armstrong, Vice President, Surface Water, Bohannon Huston, Inc.; Ted Barela, Sr. Vice President, Construction Engineering, Bohannon Huston, Inc.; Tim Solinski, Director of Surveying, AUI, Inc

Title 2: *Structural and Geotechnical Innovations on the I-25 Improved Design-Build Project*

Presenters: Richard Rotto, Designer Structural Lead, AECOM; Will Kessler, Engineer Manager I, NMDOT Bridge Bureau; Mike Anderson, Principal Engineer, Terracon; Jesse Reinikainen, Principal Geotechnical Engineer, Yedoma; Sean Melville, Sr. Vice President, Bohannon Huston, Inc.; Arturo Regalado, Bridge Engineer, Jacobs

Wednesday, April 23, 2025

3:30 – 5:00 p.m.

Room: Ballroom 2

Track 2: Materials

Moderator: Paola Bandini, Ph.D., P.E., Professor, Civil Engineering, NMSU, and Region 6 Governor, ASCE

Title 1: *Insights on Portland-Limestone Cement & Concrete Mixtures*

Presenter: Urs Fox, Technical Services Manager, GCC

Title 2: *Hydrated Lime in Hot Mix Asphalt – More Than An Antistrip*

Presenter: Kevin Ingram, Ph.D., Director, Technical Services, Lhoist North America

Title 3: *Enzyme-Induced Carbonate Precipitation*

Presenter: Paola Bandini, Ph.D., P.E., Professor, Civil Engineering, NMSU, and Region 6 Governor, ASCE

Wednesday, April 24, 2025

3:30 – 5:00 p.m.

Track 3: Design Innovation

Room: Exhibit Hall

Moderator: Jerry Paz, P.E., Chief Operations Officer, Molzen Corbin

Title 1: *Innovative Intersection Design*

Presenter: Robby Wheeler, Senior Principal Engineer, Econolite Traffic Systems

Title 2: *Transforming Transportation: A Collaborative Approach to NMDOT Digital Delivery*

Presenters: David Quintana, Chief Engineer, NMDOT; Keith King, Senior Consultant, Esri; Joseph Volpato, Infrastructure Designer & Co-Chairman, CADD Standards Committee, NMDOT

Title 3: *Anthony Gap Improvements, NM-213 Safety & Corridor Improvements*

Presenters: Roy Gibson, P.E., Sr. Vice President, Bohannon Huston Inc.; Mark Salazar, Project Development Engineer, NMDOT; Anthony Caprioglio, Project Engineer, Bohannon Huston Inc.

2025 New Mexico TransCon

***Collaborative Partnerships for
Intelligent Transportation
Infrastructure***



Thursday, April 24, 2025

7:00 a.m. **Breakfast:** Assorted Breakfast Sandwiches and Salsas; Fresh Berry Yogurt Parfait;
Coffee, Tea, Orange Juice

Room: **Exhibit Hall**

Thursday, April 24, 2025

8:15 – 9:45 a.m.

Track 1: Collaborative Partnerships

Room: **Ballroom 1**

Moderator: Daphne Espejel-García, Ph.D., Engineering Faculty, Universidad Autónoma de Chihuahua

- Title 1:** *Revitalization of the I-25/Williamsburg Interchange through Collaboration*
Presenters: Wyatt Kartchner, Vice President, Southern Region Manager and Andrew Wong, Project Engineer, Molzen Corbin
- Title 2:** *Importance of Border Crossings between the States of Chihuahua and New Mexico*
Presenter: Mario C. Contreras-Figueroa, Undersecretary of Planning and Regulations, Government of the State of Chihuahua, Department of Communications and Public Works
- Title 3:** *Driving Engagement: Interactive Strategies for Collaborative Transportation Projects and Programs*
Presenters: Marisa Maez and Nicole Moon, Sr. Strategic Communication Consultants, HDR
- Title 4:** *Collaborative Pathways to Urban Electromobility: Public Transport Solutions between Mexico and U.S.*
Presenter: Daphne Espejel-García, Ph.D., Engineering Faculty, Universidad Autónoma de Chihuahua

Thursday, April 24, 2025

8:15 – 9:45 a.m.

Track 2: Bridges

Room: **Ballroom 2**

Moderator: Ruinian Jiang, Ph.D., P.E., Professor, Civil Engineering Technology, NMSU

- Title 1:** *I-10/University Ave. Bridge Investigation and Rehabilitation*
Presenters: Danton Bean, HDR; Brice Carpenter, BDI; Ryan Tafoya, NMDOT; Matthew Smith, NMDOT
- Title 2:** *UAS, AI, and Digital Twins to Modernize Bridge Inspections*
Presenter: Barritt Lovelace, Vice President of UAS, AI and Reality Modeling, Collins Engineers, Inc.
- Title 3:** *T-1 Steel Inspection of the Rio Grande Gorge Bridge*
Presenters: Ryan Hafer, P.E., Project Manager, Ulteig; Jeff Vielle, P.E., Bridge Management Engineer, NMDOT Bridge Bureau

Thursday, April 24, 2025

8:15 – 9:45 a.m.

Track 3: Environment

Room: Rooms 7-9
(West End)

Moderator: Jolene Herrera, NMDOT Statewide Transportation Improvement Program (STIP) Bureau Chief

Title 1: *Climate Change activities at NMDOT*

Presenters: Sharon Cruz, Climate Action Program Coordinator, and Jessica Griffin, Planning Division Director, NMDOT

Title 2: *Improving Sustainability Practices in NMDOT Infrastructure*

Panelists:

Sherri Holliefield, South Region Design Manager, NMDOT

Antonio Griego, Roadside & Community Design, NMDOT

Jerry Paz, Chief Operations Officer, Molzen Corbin

Sarah Ganley, Senior Vice President Surface Water, Bohannon Huston

Michael Bloom, Sustainability Practice Manager, Sengineering

Erica Newman, Drainage Design Bureau Intern, NMDOT

Michael Sandoval, Owner, Iliago

9:45 a.m.

Break and Vendor Exhibits

A refreshment station is located outside the ballrooms at the east end of the building.

Room: Hallway

Thursday, April 24, 2025

10:00 – 11:30 a.m.

Track 1: Contractors

Room: Ballroom 1

Moderator: Brian Legan, CSHO, Director of Operations and Apprenticeship, Associated Contractors of New Mexico

Title 1: *Increasing Litigation and its Effects on Construction Projects*

Presenter: Neil Jackson, Mountain States Constructors Inc.

Title 2: *Precision in Motion: Leveraging LiDAR for Improved 3D Machine Control*

Presenter: Mark Larranaga, Topcon Positioning Systems

Title 3: *Buy America Build America (BABA) FHWA Update*

Presenter: Jessica Hunter, P.E., NMDOT CCRB

Thursday, April 24, 2025

10:00 – 11:30 a.m.

Track 2: Resilient Infrastructure

Room: Ballroom 2

Moderator: Craig Newtson, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

Title 1: *Designing Resilient Drainage Infrastructure*

Presenter: Adrianna Lash, Technical Resource Specialist, Rinker Materials

Title 2: *Embedding Risk Perspective and Resilience into Transportation Agency Practices*

Presenters: Steven Olmsted, Program Delivery Manager, Arizona DOT; Michael J Flood, Resilience Lead, WSP; Sharon Cruz, Climate Action Team Manager, NMDOT; Jessica Griffin, Planning Division Director, NMDOT

Title 3: *Improving US 285 in the Heart of the Oil Feld*

Presenters: Wyatt Kartchner, Vice President - Southern Region Manager, Molzen Corbin; Andrew Wong, Project Engineer, Molzen Corbin

Thursday, April 24, 2025

10:00 – 11:30 a.m.

Track 3: Data Technology

**Room: Rooms 7-9
(West End)**

Moderator: Qianyun (Gloria) Zhang, Ph.D., Assistant Professor, NMSU Civil Engineering

Title 1: *From Idea to Outcomes – Using Data to Connect Projects Throughout Its Lifespan to Deliver More Value to New Mexico Travelers*

Presenter: Virginia Stubella, Transportation Performance Management Manager, NMDOT

Title 2: *NMDOT Planning Division Geographical Information Hub Site: A public platform for exploring and downloading open data*

Presenter: Alma D. Pacheco, GIS Analyst, Planning Division, NMDOT; John Baker, Data Management Bureau Chief, NMDOT

Title 3: *Multi-year, network level digital mapping of pavement surfaces and highway right-of-way corridor on NMDOT-owned highways*

Presenter: Ben Ong, Transportation Asset Management Professional, Fugro

Title 4: *High-Quality Data Collection and Meta-Heuristic-Driven Path Optimization for Unmanned Aerial Vehicle-based Infrastructure Inspection*

Presenter: Qianyun (Gloria) Zhang, Ph.D., Assistant Professor, NMSU Civil Engineering

Thursday, April 24, 2025

11:30 a.m. **Break and Vendor Exhibits**

Room: Hallway

11:45 a.m. **Keynote Luncheon**

Room: Exhibit Hall

Moderator: Craig Newton, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering
Introduction: AECOM

Keynote Address: Thomas W. Smith III, ENV SP, CAE, F.ASCE, Executive Director, American Society of Civil Engineers (ASCE)

Recognitions and Scholarship Awards

The Kenneth White Professorship in Transportation and Structural Engineering in the College of Engineering

Announced by David V. Jauregui, Interim Dean, NMSU College of Engineering

Samuel P. Maggard Endowed Scholarship

Presented by Craig Newton, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

ACNM Scholarships

Presented by: Brian Roche

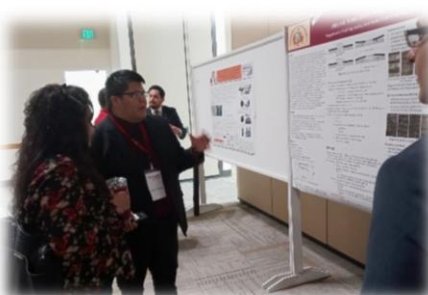
ASCE New Mexico Section Scholarships

Presented by: TBA

1:30 p.m. **Break and Vendor Exhibits**

Room: Hallway

A refreshment station is located outside the ballrooms at the east end of the building.



Thursday, April 24, 2025

1:45 – 3:15 p.m.

Track 1: Transportation Planning

Room: Ballroom 1

Moderator: Jolene Herrera, NMDOT Statewide Transportation Improvement Program (STIP) Bureau Chief

Title 1: *NMDOT Complete Streets Strategic Plan*

Presenter: Samuel Jensen, Active Transportation Programs Supervisor, NMDOT

Title 2: *The Santa Teresa Strategic Master Infrastructure Plan: Using strategic planning of infrastructure improvements to support economic development for the Santa Teresa area*

Presenters: Noah Berke, AICP, Planning Practice Lead, Southwest Region, Wilson & Company Inc.; Christopher Erickson, Ph.D., Director, Center for Border Economic Development, NMSU; Joseph De La Rosa, Senior Advisor for Global Trade and Infrastructure Investments, NMDOT and State of New Mexico Economic Development Department

Title 3: *Surviving and Thriving Government Funding: From Application to Administration*

Presenter: Sandy Zimmer, Grants & Funding Program Manager, Ulteig

Title 4: *Future of Transit in New Mexico*

Presenters: Deborah Bach, Rural Transit Programs Coordinator, NMDOT; Delilah Garcia, Transit Planning and Commute Options Program Manager, NMDOT

Thursday, April 24, 2025

1:45 – 3:15 p.m.

Track 2: Environment

Room: Ballroom 2

Moderator: Zhe (Joe) Wan, Ph.D., P.E., Assistant Professor, NMSU Civil Engineering

Title 1: *Journey with us Along the Trail of the Ancients Scenic Byway*

Presenter: Denise Aten, Senior Vice President; Liz Treat, Planner; Clare Haley, Planner; Bohannan Huston

Title 2: *El Paso Electric's New Mexico Transportation Electrification Plan: Electric Vehicle Charging Infrastructure Rebates and Programs*

Presenter: Edwin Martinez, Project Manager-Electrification of Transportation, El Paso Electric Company

Title 3: *10 Reasons Zero Emissions Vehicle Plans Stall...and what your agency can do about it*

Presenter: Rob Mowat, Transportation Electrified Mobility Practice Lead, HDR

Thursday, April 24, 2025

1:45 – 3:15 p.m.

Track 3: Safety

Room: Rooms 7-9
(West End)

Moderator: Daphne Espejel-García, Ph.D., Engineering Faculty, Universidad Autónoma de Chihuahua

Title 1: *Science of Retroreflectivity*

Presenter: Austin Kuhrmeyer, 3M

Title 2: *Constructability and Functionality Review of the Triple Roundabout in Truth or Consequences, NM*

Presenters: Andreas Linnan, Technical Support Engineer, NMDOT; Andrew Gallegos, Director of Transportation, Planning, and Engineering, NV5; Matthew Smith, Project Manager, NMDOT

Title 3: *Coordinating Safety across NMDOT to reach Target Zero (Zero Traffic Fatalities by 2050)*

Presenter: Amy Whitfield, Special Director; Jason Coffey, Technical Unit Supervisor; Samuel Jensen, Active Transportation Programs Supervisor; Shannon Glendenning, Traffic Safety Division Director; NMDOT

3:15 p.m.

Break and Vendor Exhibits

Room: Hallway

A refreshment station is located outside the ballrooms at the east end of the building.

Thursday, April 24, 2025

3:30 – 5:00 p.m.

Track 1: Design Innovation

Room: Ballroom 1

Moderator: TBA

Title 1: *Flipped Left Diamond Interchange: Another Innovative Alternative Intersection Design*

Presenter: Scott Booth, Senior Project Manager, LJA Engineering

Title 2: *I-25 Improved: Design-Build Innovations*

Presenters: Mike Worrall, Consultant Project Manager, Horrocks; Luke Smith, Project Development Engineer, NMDOT; Richard Rotto, AECOM; Patrick Shaw, AUI Inc.

Thursday, April 24, 2025

3:30 – 5:00 p.m.

Track 2: Technology

Moderator: Ross Lujan, P.E., Regional Transportation Manager, Ardurra

- Title 1:** *Portable Traffic Signals in the MUTCD*
Presenter: Kirk Thrasher, Regional Sales Manager, Horizon Signal Technologies
- Title 2:** *Bridging the Digital Divide: Engineers, Vendors, and Contractors for Delivery Success*
Presenter: Leon Nafus, National BIM Leader, WSP
- Title 3:** *From the "Slide Rule" to AI*
Presenter: Ray Acuna, Owner, Acuna Engineering

Thursday, April 24, 2025

3:30 -- 5:00 p.m.

Track 3: Drainage

Room: Ballroom 1

Moderator: Huidae Cho, Ph.D., P.E., CFM, GISP, Associate Professor, NMSU Civil Engineering

- Title 1:** *From Burnout to Balance: Using Positive Affirmations to Reignite Your Energy & Purpose*
Presenter: Haley Lugo-Pichardo, Owner, Daily With Haley, LLC
- Title 2:** *Harnessing the Power of CFD Modeling: the CR-1 Approach to Complex Drainage Analysis*
Presenters: Chris Naidu, NM Water Local Business Line Leader, WSP; Judy Horacek, Special Projects Coordinator, Cibola County
- Title 3:** *A robust inspection system for internal inspections of small culverts*
Presenter: Eleanor Rightley, Graduate Research Assistant; Claudia M. D. Wilson, Associate Professor; Isabel Morris, Assistant Professor; Wesley Cook, Associate Professor; Curtis O'Malley, Assistant Professor; Ryne Almarinez and Samuel Gore, Undergraduate Research Assistants, New Mexico Institute of Mining and Technology
- Title 4:** *How to Address Uncertainty in Drainage Analysis for the NMDOT Culvert Asset Management Program (CAMP)*
Presenter: Huidae Cho, Associate Professor, NMSU Civil Engineering; S.M. Asaduzzaman Reshad, Graduate Research Assistant, NMSU

Friday, April 25, 2025

7:00 a.m. **Breakfast:** Assorted Breakfast Burritos and Salsas; Whole Bananas, Apples, Mandarin Oranges; Coffee, Tea, Orange Juice

Room: **Exhibit Hall**

Friday, April 25, 2025

8:00 – 9:30 a.m.

Track 1: Safety

Room: **Exhibit Hall**

Moderator: Craig Newton, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

Title: *Creating a Culture of Safety and Caring*
Presenter: Mike Schneider, Baker Concrete

Friday, April 25, 2025

8:00 – 9:30 a.m.

Track 2: Intelligent Infrastructure

Room: **Rooms 7-9
(West End)**

Moderator: Jonah Ruybalid, P.E., Molzen Corbin

Title 1: *Dynamic Left-Turn Lanes: A Key to Smarter, Sleeker Road Networks*
Presenter: Bhanu Kala, ITS & Transportation Planning Expert, Srirama, LLC

Title 2: *The Power of AI for Predictive Roadway Maintenance*
Presenter: Mark Pittman, CEO, Blynscy, a Bentley Systems Company

Title 3: *From Concept to Reality: The New Age of Civil Engineering with Digital Twins and AI*
Presenter: Terry Walters, Digital Practice Manager, Stantec

Friday, April 25, 2025

8:00 – 9:30 a.m.

Room: **TBA**

Track 3: 2025 Student Poster Session and Competition

9:30 a.m.

Break and Vendor Exhibits

A refreshment station is located inside the Exhibit Hall

Room: **Exhibit Hall**

Friday, April 25, 2025

9:45 a.m.

Room: **Exhibit Hall**

Announcement: Winners of the Booth Champions Challenge

Moderator: Craig Newton, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

Speaker: Stantec

Friday, April 25, 2025

10:00 a.m. – 12:00 p.m.

Room: **Exhibit Hall**

Engineering Ethics 2025

Introduction: Craig Newton, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

Speaker: John Lommler, Ph.D., P.E., D.GE, Adjunct Professor, NMSU Civil Engineering

12:00 p.m.

Student Poster Awards

Moderator: Qianyun (Gloria) Zhang, Ph.D., New Mexico State University

Speaker: NMDOT

12:30 p.m.

Closing Remarks

2025 New Mexico Transportation and Construction Conference

Conference Planning Committee:

Conference Planning Committee Co-Chairs:

Craig Newton, New Mexico State University

Qianyun Zhang, New Mexico State University

Committee Members:

Paola Bandini, New Mexico State University

Logan Brandenburg, ASCE New Mexico Section

Huidae Cho, New Mexico State University

Kimberly Coleman, Sandia National Laboratories

Alvin Dominguez, ASCE New Mexico Section

Ahmed Elaksher, New Mexico State University

Daphne Espejel Garcia, Universidad Autónoma de Chihuahua

Roy Gibson, ASCE New Mexico Section

Andy Hume, Las Cruces International Airport / American Planning Association-New Mexico

Ruinan Jiang, New Mexico State University

Brian Legan, Associated Contractors of New Mexico

Andreas Linnan, New Mexico Department of Transportation

Ross Lujan, American Council of Engineering Companies-New Mexico

Sara Patricolo, New Mexico State University

Jerry Paz, ASCE New Mexico Section and Region 6

Gisela Perez, New Mexico State University

Jonah Ruybalid, Molzen Corbin

Albert "Bert" Thomas, American Council of Engineering Companies-New Mexico

Max Valerio, Federal Highway Administration – New Mexico Division

Shannon Vigil, New Mexico Department of Transportation

Zhe Wan, New Mexico State University

