

TAG HOUSTON PRESENTS

AI

TRANSFORMATION IN TRANSPORTATION: HOW TXDOT IS PAVING THE WAY WITH AI

VIRTUAL COFFEE RECEPTION

JUNE • 16 • 2026

🕒 9:00 AM – 10:00 AM

📍 ZOOM (LINK PROVIDED
UPON REGISTRATION)

FEATURING

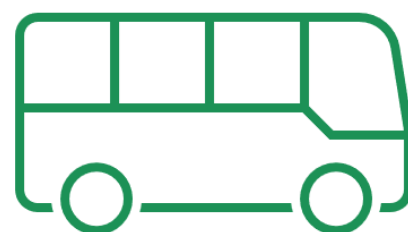


ANH SELISSEN

Chief Information Officer at TxDOT

TAG MISSION

Dedicated to building a broad-based coalition of businesses, local governments and community organizations to demonstrate public support for full and adequate funding of transportation infrastructure by the local, state and federal governments





Anh Selissen
Chief Information
Officer
TxDOT



June 8, 2026

TxDOT's AI Strategic Plan

Texas Department of Transportation
Anh Selissen, Chief Information Officer

Why AI Matters at TxDOT

AI Enhances Decision-Making

AI helps TxDOT process large data volumes and support faster, predictive decision-making for transportation management.

Enterprise-Wide AI Adoption

AI is now an integral capability at TxDOT, enhancing service delivery and ensuring reliable transportation for Texas.

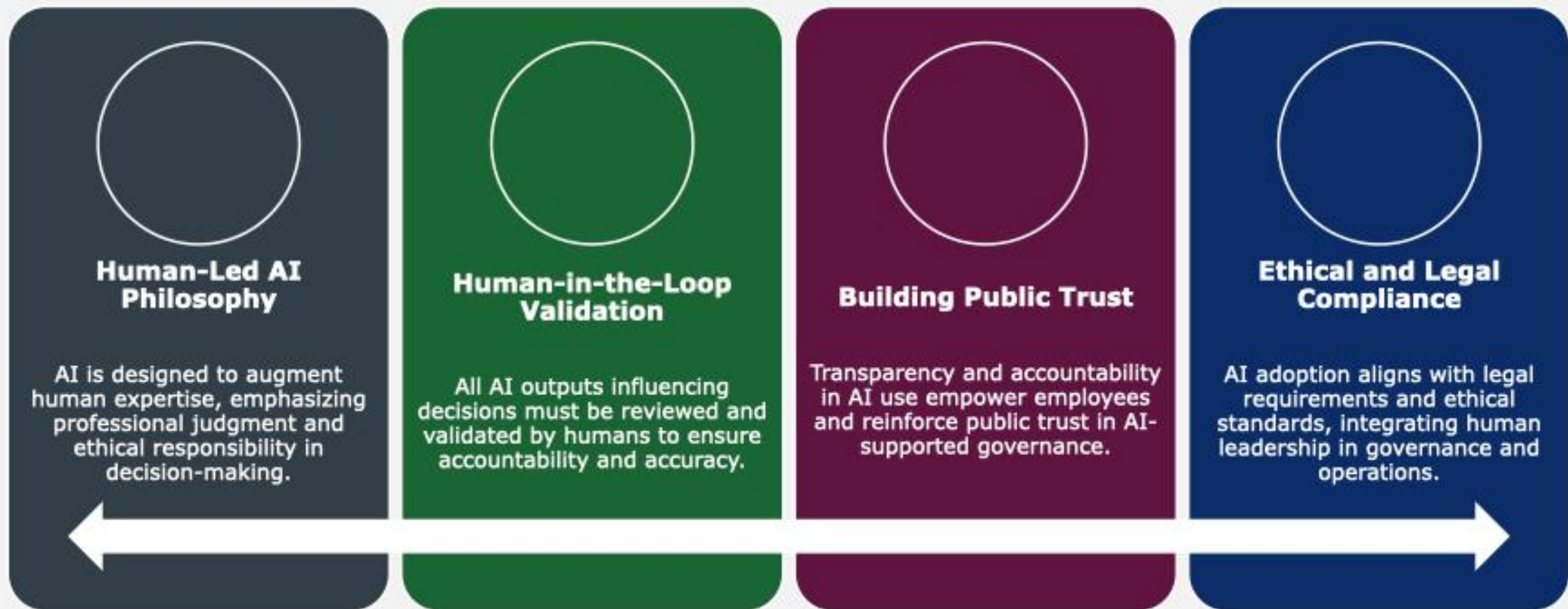
Improved Safety and Efficiency

Leveraging AI can enable early risk detection, proactive maintenance, and streamlined workflows enhancing safety and efficiency.

Strategic AI Integration

TxDOT's AI Strategic Plan formalizes AI as an enterprise capability supporting agency-wide transportation goals responsibly.

Human-Led, AI-Supported



AI Strategic Framework

Governance Framework

Governance ensures oversight, policy compliance, and ethical AI use with clear accountability and risk management.

Data Foundation

A secure, curated data platform consolidates agency data to reduce bias and improve AI analytics quality.

AI Intake and Readiness

Structured evaluation prioritizes AI use cases based on data readiness, business value, and risk feasibility.

Foundational Capabilities

Scalable technology and workforce development empower employees to work confidently with AI systems.

TxDOT's AI Foundation

AI GOVERNANCE

POLICY

All AI technology must follow ITD Governance Processes and abide by the guiding governance principals

AI deployments and operational systems must be overseen by a human

PRINCIPLES

Security
Transparency
Accuracy
Accountability
Trustworthy
Privacy
Safety

RISK ASSESSMENT

Cross-divisional

Assess risks in potential AI initiatives

Categorizes and scores using NIST framework

COMMUNITY OF PRACTICE

Foster collaboration, learning, innovation

Crowd source ideas and organizational opportunities

Grow resource expertise

RESPONSIBLE INNOVATION

TxDOT Enterprise Tool Implementations



 Gemini Enterprise

GenAI Productivity Assistants: M365 Copilot / Gemini Enterprise

Use cases: document review and summarization, research and brainstorming, task management

Adoption enablement: Prompt playbooks, Champions network, and Usage analytics



Machine Learning: AWS SageMaker

Standard Machine Learning (ML) platform for building, training, and deploying models at scale

Use cases: Material properties prediction, Predictive maintenance, Traffic forecasting, Anomaly detection, and Road network segmentation

TxDOT Successes: Real Results, Real Value

Automated Invoice Processing

Automation and AI validation saved 22,000 staff hours annually and cut processing times by 75%.

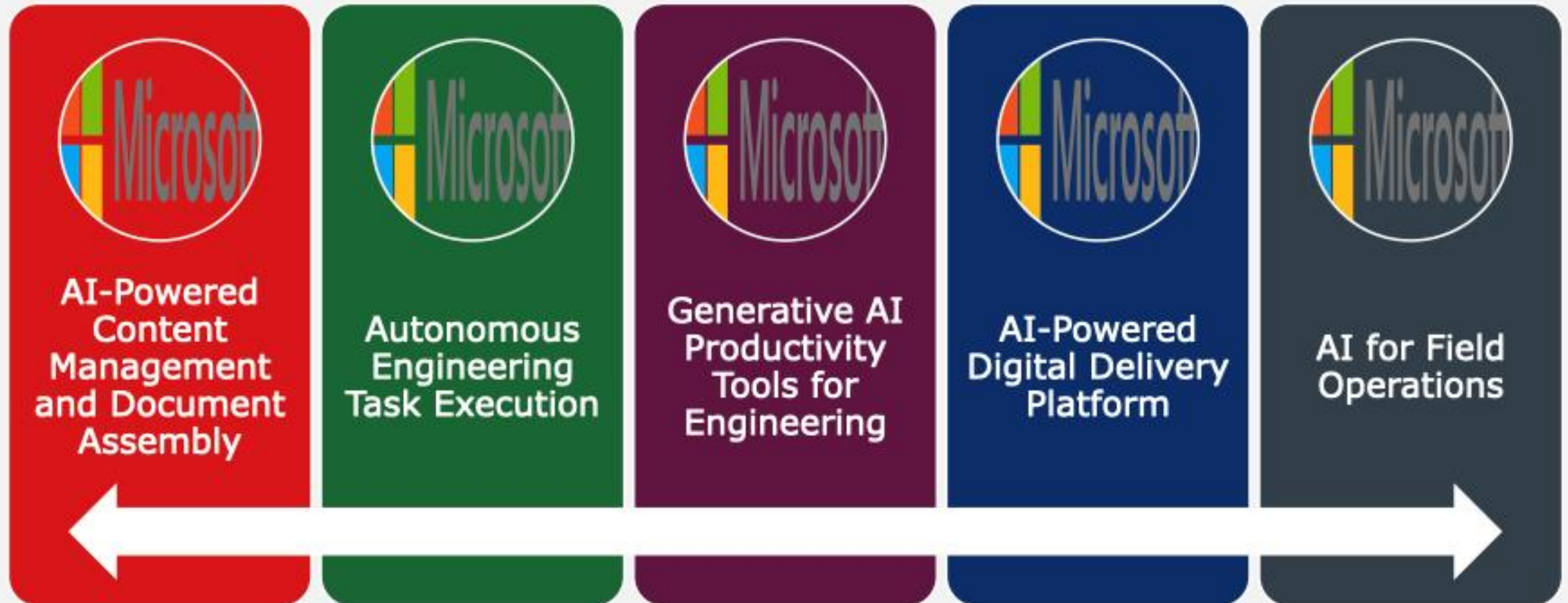
AI-Driven Incident Detection

AI accelerates crash and debris detection, speeding response times for traveler and first responder safety.

AI Productivity Tools

Improved document drafting and content generation, summarization, and knowledge retrieval across staff.

AI Opportunities for Engineering



AI / Innovation: TxDOT Use Cases

AI Video Analytics: Using AI vision-learning to identify crashes, roadway debris, pedestrians, wrong-way drivers.

Crash Data Interpretation: Use AI to “read” and interpret crash report data.

Traffic Signal Optimization: Use AI/ML to optimize traffic signals.

Advanced Traffic Signal Performance Measures: Explore AI enhancements for users to easily detect malfunctions, anomalies, and poor operations

Video Quality Audits: Explore AI capabilities to continuously monitor traffic camera stream quality to identify malfunctions & ensure operations during weather events

Truck Parking Area Counting: Collect real-time parking numbers for truck rest areas to assist with ground-truthing published accounts

AI Strategic Plan: 2026 Update

Governance Philosophy

Human-Led, AI-Supported: Every AI output requires Human-in-the-Loop (HITL) validation.

Statutory Alignment: Texas enacted the Texas Responsible Artificial Intelligence Governance Act (TRAIGA) in June 2025.

AI Policy & Acceptable Use: 7 core principles (Security, Transparency, Accuracy, Accountability, Trustworthy, Privacy, Safety) guide all deployments.

AI Risk Assessment: Cross-functional AI Risk Management Workgroup assesses risk for AI technologies and recommends mitigation actions.

Oversight: Governance spans cross-functional bodies (i.e., CIO Advisory Board, Traffic Steering Committee) to ensure alignment with agency goals.

Data Foundation

Enterprise Data Platform (EDP): Integrates data from business areas, digitized historical records, and external systems, applying standardized formats, metadata, and definitions to ensure consistency.

Data Quality: EDP promotes accuracy, completeness, and consistency by working with business stakeholders to implement data validation and profiling.

Standardized Processes: Standardized processes for data intake, orchestration, and delivery unify data from diverse sources into consistent formats, all managed under a single governance framework.

Data Security & Governance: End-to-end encryption, role-based access, and compliance monitoring ensures a hardened security architecture.

EDP Roadmap: Accelerate data assembly, harmonize data for interoperability and automate integrity (AI-driven cleansing/validation).

AI Strategic Plan: 2026 Update

Foundational Technology

Cloud Infrastructure: Ensures secure, flexible, and sustainable deployment of AI applications, enabling seamless integration between TxDOT systems and external data sources while safeguarding agency data and operational integrity

Scalable Machine Learning Platforms: Deployment of scalable machine learning platforms designed to facilitate model design, training, and deployment, enabling teams to rapidly experiment and operationalize models for priority or high-impact use cases such as predictive maintenance, operational forecasting, and real-time infrastructure monitoring.

Low-Code/No-Code Enablement: Enabling staff to leverage low-code/no-code platforms to design and manage AI agents tailored to their specific workflows.

Emerging Applications: Ongoing investment in technical foundations required to transition from AI experimentation to AI applications.

Workforce Enablement

Foundational Learning: On-demand courses in data science, ethics, and AI fundamentals to build a baseline of competency.

Applied Learning: Targeted, product-specific sessions (e.g., Microsoft Copilot, Box) ensure staff can immediately leverage AI features within existing platforms.

AI Community of Practice: TxDOT's primary hub for AI awareness and collaboration, covering foundational AI types, data integrity, productivity tools and machine learning.

AI Innovation Team (ITD): Focused on rapid application prototyping of prioritized use cases.

AI Talent Pipeline: TxDOT is implementing a multi-faceted talent strategy to ensure the right expertise is in place for evolving AI initiatives

The Road Ahead

Readiness Scorecard

- Prioritize 200+ AI use cases based on the following criteria:
 - ❖ Data readiness
 - ❖ Business sponsorship
 - ❖ Resource capacity/feasibility
 - ❖ Risk/ethics
 - ❖ Value/impact

Enterprise Workforce Development

- Executive Workshops
- TxDOT AI Academy
- Business Engagement
- AI Talent Pipeline

Strategic Priorities

- **Intelligent lifecycle delivery:** Augmenting the project pipeline to accelerate schedules and administrative workflows while maintaining technical accuracy and optimize efficiency.
- **Predictive asset management:** Transforming fleet, facility, and infrastructure operations through data-informed models that anticipate maintenance needs, optimizing asset lifespan and maximizing taxpayer value.
- **Proactive safety analytics:** Utilizing real-time sensors and computer vision to identify roadway anomalies and safety risks before they impact the traveling public.

HELP MAKE TEXAS SAFER FOR EVERYONE

DRIVE *like a* TEXAN.

Kind. Courteous. Safe.





Christina Cabral
Executive Director
TAG Houston

MOBILITY CHAMPIONS



MOBILITY PARTNERS

ABHR

BAXTER & WOODMAN
Consulting Engineers

ENTECH
CIVIL ENGINEERS, INC

GEOTEST
ENGINEERING, INC.

HDR

HILLDAY

HNTB

IE
INFRASTRUCTURE
CONSULTING & ENGINEERING

Jacobs

LAN

LJA

OMEGA
ENGINEERS, INC

PAPE-DAWSON



PARSONS



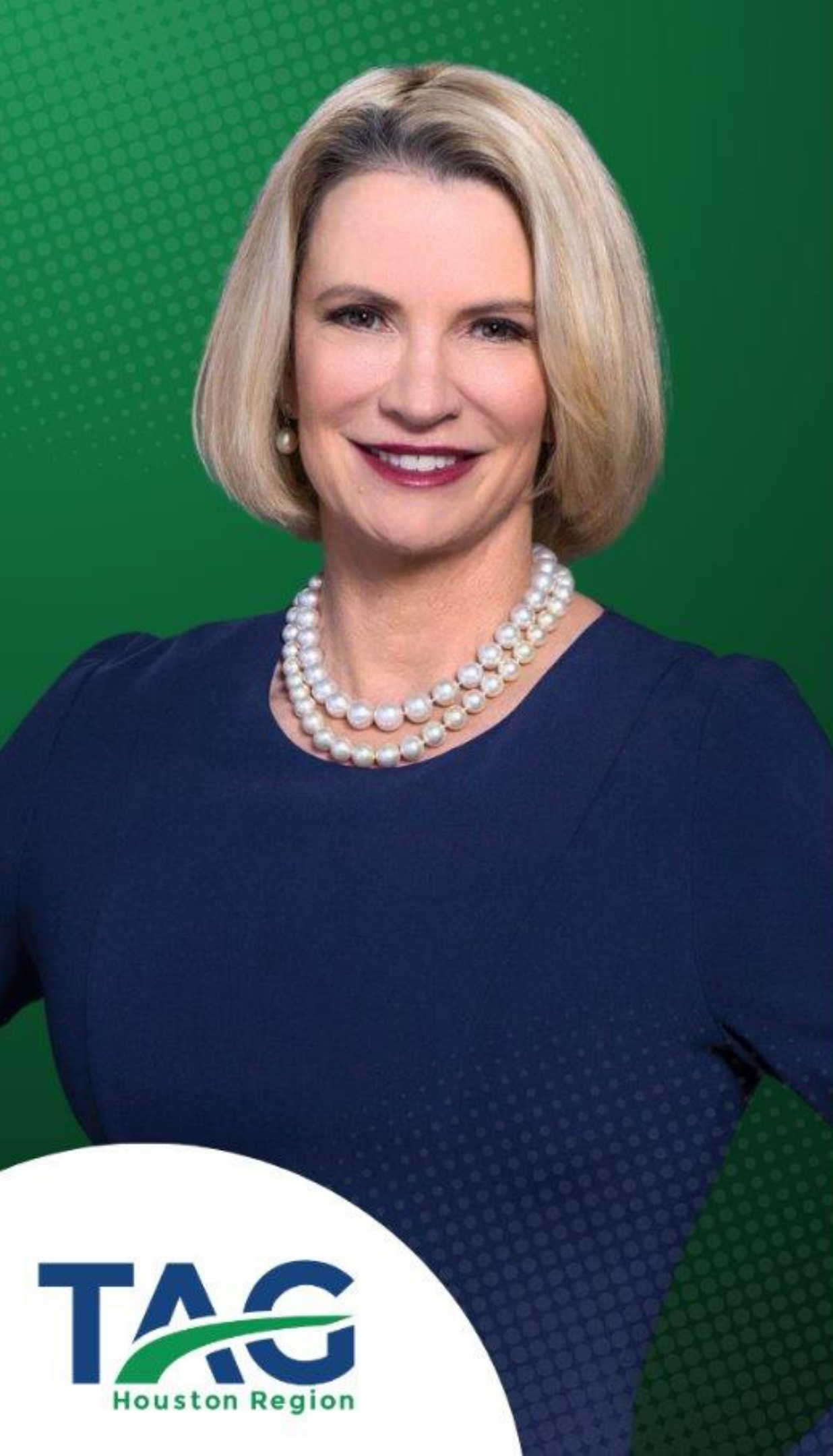
PORT HOUSTON™
THE INTERNATIONAL PORT OF TEXAS

SESCO
CEMENT



walter
p moore

WSP



TAG CELEBRATION OF WOMEN LEADERS IN TRANSPORTATION

**Featuring
Commissioner
Dawn Buckingham, M.D.
Texas General Land Office**



June 18, 2026

5:30PM to 7:30 PM



**The Junior League of Houston
1811 Briar Oaks Lane
Houston, TX 77027**

TAG HOUSTON'S ANNUAL TOLL LUNCHEON

SEPTEMBER • 9 • 2026



11 AM - 1 PM



BAYOU CITY EVENT CENTER
9401 KNIGHT RD. HOUSTON, TX, 77045

TOLLS & TRANSPORTATION SYSTEM INFORMATION WITH



Robert Castaneda

Director

Montgomery County Toll Road Authority



David Gornet

Executive Director

Fort Bend County Toll Road Authority



Matt Hanks

County Engineer

Brazoria County



Roberto Trevino

Executive Director

Harris County Toll Road Authority





Steven D. Alvis

COMMISSIONER
Texas Transportation Commission

TAG
Houston Region



10TH ANNUAL

STATE OF TXDOT

LUNCHEON



October 22, 2026



11:00 AM TO 1:00 PM



Hyatt Houston Downtown
1200 Louisiana Street
Houston, TX 77002

UPCOMING EVENTS

SAVE *THE* **DATE**

T A G H O U S T O N R E G I O N ' S

TRANSPORTATION ADVOCACY DAY

IN AUSTIN, TEXAS

FEBRUARY • 24-25 • 2027



MORE DETAILS TO FOLLOW

INTERESTED IN LEARNING MORE CONTACT
GREENLIGHT@TAGHOUSTON.ORG

Become a Member

Scan the QR code to learn more



SCAN ME



BY PHONE



BY EMAIL