

Texas State Transportation Innovation Council (TxSTIC)

TxSTIC Meeting Summary

July 25, 2023- 1:00 AM – 3:30 pm CST

[Recorded Meeting](#)

MEETING NOTES

Highlights:

- Set-up & Pre-Tech Test performed from 11:00 AM- 12:00 AM- Tech Test was successful.
- Hybrid: In Person & Virtual via Zoom.

Announcements & Reminders:

- Welcome and updates from TxDOT and FHWA

Overview:

- Safety Briefing- presented by Ben King, TxDOT, Section Director, Innovation Section TxDOT Strategic Planning Division
- CAI Updates-(CAI)Center for Accelerating Innovation presented by Douglas Mikowski, FHWA, Wyoming Division, Acting STIC Coordinator.

CAI currently has the following four programs:

1) STIC (State Transportation Innovation Council)

- STIC Excellence Award Applications currently under review

2) EDC-7

- Baseline reporting is complete, and results are posted.
- EDC-7 Summit Summary and Baseline Report (dot.gov)
 - https://www.fhwa.dot.gov/innovation/everydaycounts/reports/edc7_baseline_report_508.pdf

3) AID-Accelerated Innovation Deployment-Fawn Thompson, Program Coordinator

- Expect Announcements Soon

4) AMR -Accelerating Marketing Readiness -Jeffrey Zaharewicz, Program Coordinator

- No Updates at this time

- **Local Aid Support Team Initiatives -Trinette Ballard-Local Aid Support Manger, Office of Innovation and Workforce Solutions, FHWA**

Local Aid Support Team:

- Joe Conway-Local Aid Support, Director
- Danielle Mathis-Lee-LTAP Program Manager
- Morgan Manning-TTAP Program Manager
- Hans Anker-Innovation Program Manager
- Trinette Ballard-Marketing Program Manager

- FHWA provides the following to 51 LTAP Centers located in State DOTs or Universities and 7 Regional TTAP Centers:
 - Set Strategic Direction of LTAP/TTAP
 - Provide Program Oversight
 - Review the centers work plans
 - Provide annual funding,
 - Collaborate with the centers to provide training and technical assistance to the local and tribal agencies
 - Provide Marketing and Outreach Support
 - FHWA Local Aid Support-3 Core Service Areas
 - Training Develop & Expand Expertise
 - Technical Assistance (Solve Problems)
 - Technology Transfer (Deliver Innovations)
 - LTAP Centers Training Summary for FY22
 - Hours of Training Delivered 35.8K
 - Participants- 155.6K
 - Sessions-6.3K
 - 40 Years of LTAP/TTAP
 - Video to commemorate the milestone moment
<https://www.youtube.com/watch?v=WtMrJSR7iUA>
 - 40-year Anniversary Article was featured in Public Roads
 - Access the Local Aid Support Newsletter
<https://www.fhwa.dot.gov/clas/newsletters/>
 - Sign-up for the Local AID Support Newsletter
https://public.govdelivery.com/accounts/USDOTFHWA/subscriber/new?topic_id=USDOTFHWA_153
 - Local and Tribal agencies have access to no charge Online Training modules and on-line Library via partnerships with various organization.
 - Build A Better Mousetrap(BABM) Program recognizes Local and Tribal Agencies who have implemented innovative solutions to save money, time and increase efficiency in their Transportation programs. Purpose of the program is to recognize innovative agencies while encouraging other agencies to do the same.
 - In the past 2 years FHWA has received 120 nominations across four categories. 53 nominations from 20 States and a Tribe were submitted for 2023. Both National and State Winners innovations are highlighted in the BABM booklet.
 - Every Month the Local Aid Support team host an Innovation Exchange webinar. This is a peer to peer exchange via web, where local agencies present innovations to peers. Next Innovation Exchange webinar will be held in August and will feature the use of Geosynthetic Material in Transportation Projects.
 - Geosynthetics Mobile App-The mobile app provides easy, on-demand access to information on specification requirements and site inspection guidance for walls, slopes, pavements, erosion control and drainage. For more information, please visit <https://www.fhwa.dot.gov/clas/geosynthetics/>

• **STIC Incentive Project Updates-Strategic Workforce Development Update-Ray Belk,
TxLTAP-WFD Phase II Team Initiatives**

- The 5-Stage Model on How to Attract and Retain Public Works Employees Guide was developed as a priority need to fill the declining ranks of Public Works Employees.
 - Recruiting and Selecting
 - Onboarding
 - Training and Development
 - Engagement and Evaluation
 - Succession Planning
- The Guide also contains three extensive **attachments** to provide detailed information and direct cities and counties to no-cost training and development activities.
TxLTAP Instructor-Led Courses: Description and Learning Objectives
AASHTO/TC3 Public Works/Road & Bridge Oriented Online Courses
Texas Department of Transportation Recommended Training Courses
- The main objective of the project is to provide tools, in the form of the Guide, that will provide the following for cities and counties to use. Tools already developed include:
 - Proven approaches to recruiting employees into public sector jobs.
 - Onboarding strategies and processes recommended for cities and counties bringing on new hires for higher retention rates.
 - Training course resources recommended for new hires regardless of job classification.
 - Training courses recommended for Public Works/Road and Bridge personnel.
 - How to tie training, job descriptions, and employee performance plans together for continuous employee engagement.
 - Employee engagement tools and strategies include personal and professional development, coaching, mentoring, and employee recognition programs.
 - Providing guidance on which tools may work best depending on the size of your organization.

• **EDC 5 Project Updates-Weather Responsive Management Strategies,
Kenneth Perrine, Research Associate, Center for Transportation Research**

- EDC-5 Project Close-Out
 - **Tracking WinterOps activities**
 - Completely passive to the vehicle operators
 - equipment, no subscription cost
 - Interest in other seasonal activities
 - **Identifying how to use the data**
 - Integrate with existing GIS processes
 - TxDOT IMD GIS team involved
 - Goal: integrate with TxERA
 - **Partnered with Abilene and Lubbock**
 - 4 trucks in Abilene
(3 plows/V-box spreaders and 1 sprayer)
 - 2 trucks in Lubbock
(2 plows/V-box spreaders)

- Outcome of our WinterOps sensing pilot
 - Snow plow, spreader, and brine spraying activity was recorded among 6 vehicles in 2 districts.
 - Minimal additional equipment was necessary.
 - Drivers did not need to perform any special actions.
 - Ways of accessing and utilizing the data were demonstrated.
 - Applicable operations beyond winter were identified.

- **Planning for ITS Growth-Jeff Miles, TxDOT Bryan District, District Design Engineer**
 - Bryan District perspective on how to plan for ITS growth as TxDOT continues to roll out innovations looking to improve safety and operations for all of Texas, and anyone passing through our great state.
 - Transportation Systems Management and Operations (TSMO) is how we implement and utilize intelligent transportation systems (ITS) and traffic management systems (TMSs) to optimize the existing transportation network.
 - Speed and volume data are used for updating current travel times to planning the next major construction project.
 - Wrong way, overheight, and crash detection systems are used to alert the traveling public to safety concerns.
 - ITS and TMS are at the heart of improving safety and operations for the existing transportation network that will increase system reliability and resilience, while reducing congestion, emissions, and cost.
 - US290 at FM 1155 in Chappell Hill-This location is a rural high speed freight corridor that also handles evacuation traffic. We have had 72 crashes from 2020 to 2022 with 20% of the crashes with injuries. With the grade separation a long way off, we have already taken some early steps to improve safety, while designing an interim solution that I want to highlight. Based on crash data and supporting public concerns, we implemented the Iteris Clearguide system 2021
 - Our second interim solution, we upgraded a signal ahead warning sign equipped with a 24-hr roadside flashing beacon to one that was integrated into the traffic signal. Now, the beacon only activates after the US 290 approach during the yellow and red phases. We believe that the signal actuated beacon will increase driver compliance.
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- Updates-Darran Anderson, TxDOT Director of Strategy and Innovation, TxSTIC Co-Chair.
 - Innovation Alliance hosted an Innovation Invitational with its team members the week of July 17- 19th in Austin. Comprise of 10 regional teams added Waco, Midland -Odessa, and Corpus Christi. These team worked on ideas that they want to purse for grants and Innovation Zone projects in their regions.
 - Another big announcement was Kodiak Robotics, autonomous freight company announced last week that they will pilot the -Enhanced Commercial Motor Vehicle Inspection Standard program. which allows autonomous trucks to pre-clear roadside inspections.

- Cruise-driverless rideshare is now operating in Austin with no driver. Waymo is coming soon. VW will test in Austin in the next coming years.
- Autonomous freight companies are operating on 45, 36, I-20 and I-30. Texas is the lead state for that development in the nation.
- We have personal delivery devices in every town, focusing on college campuses and local delivery.
- Great work going on with using Highway Condition Reporting System (HCRS) handheld software in a construction zone to allow you to upload information about start point and end point. Furthering that to a mapping application of various types across the State.
- Ben King is now on-boarding and will be responsible for the section that pulls together our portfolio of different type of Innovation projects from Everyday Counts to the Innovative Projects that we get from the districts, divisions, external projects from other States and NCHRP- The National Cooperative Highway Research Program.
- John Corbin, Connected Automated Vehicle Program Manager (FHWA Office of Transportation Management), recently released the highway automation guidance and is now charged with coming up with a digital infrastructure strategy for the state (what's the future of connected vehicle technologies, what are all the sensors that many not be on a highway system now that we would like to see proliferated across the US.

Q&A Highlights:

David Palmer, DPS- By the end of the month we will roll out the new in-car and CAD system, which is a big milestone for us to move us into the current technology, when it comes to those platforms. We are also continuing to leverage our drones in our crash and other tactical areas.

Q: A couple of years ago, TxDOT pony up some resources for about 20 to 30 drones. Do you know if DPS has added to that? *Darran Anderson-TxDOT, Director of Strategy and Innovation*

A: I don't think we have added to the drone inventory, but we have upgraded and replaced some older stuff. We got enough drones to cover what we need, and we really don't have the capacity because of all the training and recertification needed to have more drone operators. David Palmer, DPS

Chat Highlights:

- Snowplow Operations Management System Project Summary- [TxDOT Research Project](#)
- TIA Invitational Meet the Teams [Local Highlights](#)