Oklahoma State Transportation Innovation Council (STIC)
Meeting Minutes
Thursday, June 22, 2017 at 1:30pm

Location: Oklahoma History Center
Oklahoma Historical Society Boardroom

See attendance sheet for attendees. Siv Sundaram joined over the phone line.

Dawn Sullivan and Basharat Siddiqi provided the welcome and opening remarks.

EDC-4 Innovations

Collaboration Hydraulics: Advancing to the Next Generation of Engineering (CHANGE)

Leslie Lewis reported that the kickoff meeting was held and dates for training were identified. 3 webinars were attended by members with 90-150 full attendance with good engagement on the topic. Training for 2-D modeling will be held on December 5 at the Moore-Norman Technology Center. Lewis responded to the AASHTO technical committee regarding input on the 2D modeling for a July AASHTO meeting. The CHANGE teams consists for 3 ODOT, 3 consultant and 1 FHWA member. A pilot project has been chosen and Scott Hogan, FHWA Resource Center Hydraulics Team, noted that once the FHWA consultant is selected, a liaison will be assigned to ODOT for this effort.

Data-Driven Safety Analysis (DDSA)

David Glabas noted that some of the work under this innovation was already on-going by ODOT.

New work includes teaching consultants how to go through ODOT's safety analysis program. 5 classes have held with 24 permits to access information have been issued to 15 consultants. Training covers basic features of SAFE-T, overview of the highway system, discussion of input panels, how to read collision report, example of how to run highway collision data, street and county road data, how to put together strain- and sliding-scale analysis and export to Excel. Local governments are provided access to this information per ODOT policy with Consultants recently added. Training has been on-going for the past 6 months.

Glabas and Alan Stevenson formed a working committee to cover 4 areas regarding traffic issues: traffic engineering, traffic design, traffic operations, and ITS/Traffic Incident Management System (TIMS). 4 primary members and selected guest members have been identified with the 1st meeting scheduled for July 5, 2017. The primary goal for this group is toward better communication and working relationships among functional groups regarding traffic engineering, design and operations.

Stevenson and Matt Warren, ODOT State Highway Safety Engineer, are working on update to SAFE-T that allows for identification of secondary crashes. This feature is not currently available and could be used as a TIMS performance measure in the future.

Warren and Jeremy Planteen, ODOT GIS, have established to get initial safety data into a database that can be used for Decision Lens.

Pavement Preservation (When, Where, How)

Brad Mirth reported that he and Waseem Fazal have developed a draft implementation plan. Some of the identified activities include: updates to the 3P Guidelines and Decision-Tree Matrix, this effort is complete and the Division Maintenance Engineers have been apprised of the changes, sent a few months ago by SAPM Pavement Management; dTims, the pavement analysis software used by ODOT, has been updated to perform advanced analysis on treatments, service life and cost benefit – 20% complete; Division 3 tried a scrub seal near Ada, some issues with this (superelevation) but road condition presented some issues, unsure if information form this effort was captured; another scrub seal project near McAlester was performed with better results.

Chip seal is being used successfully by 6 divisions. Division 7 recently tried this technique with good results and had help from other field divisions and the oil suppliers. Division 4 will be doing some in the summer months with help from neighboring divisions making it the 7th division to use chip seals.

A conference call was held on June 20 with Jason Dietz, FHWA Resource Center Pavement Materials Engineer, and Barry Hughes, BIA, to discuss development of training or peer exchange sessions regarding pavement preservation for local governments, stressing when and where concepts. Possibly doing this in the fall (October), after construction season.

Road Weather Management – Weather Savvy Roads

Brad Mirth reported that 85 tablets are installed in 85 snow plow vehicles with National Weather Service radar displays incorporated into them. Still working on integrating the National Weather Service's Pathfinder system in the snow plow server web application. ODOT working to become a Pathfinder member to gain access to all data.

The road condition map is being used by DPS and TOC staff. The map web interface is progressing and training is scheduled for Divisions 4, 6 & 8 for superintendents. Training for table applications for ODOT snow plow drivers will be placed on the ODOT ITS web page for reference. Ronald Bruce is working on a training video for viewers – superintendents and managers – allowing them to see where the snow plow vehicles are.

Training is needed for superintendents and maintenance personnel for inputting data into the road condition map, okroads.org, for road and flooding closures. An automated email system is being considered for notification to Road Conditions email address to assist media with this information. Storm performance evaluation and review queries are needed coming from this system.

Safe Transportation for Every Pedestrian (STEP)

Mikie HInkston reported that 5 classes have been scheduled for November: Nov 7 – Claremore; Nov 8 – McAlester; Nov 9 – Edmond; Nov 14 – Lawton; Nov 16 – Enid. Thanks to Louisa Ward for her assistance in getting this many classes supported. Registration is already taking place for these classes. Class size is limited to 35. Target audience is local governments, tribes, contractors, and state DOT personnel.

Ultra-High Performance Concrete Connections for PBES (UHPC-PBES)

Walt Peters noted that this innovation is a EDC-3 and -4 effort for concrete above 20,000 psi, which is more than ODOT traditional uses. High-strength steel fibers are used in the mix. Typically used in accelerated bridge construction to join precast elements and has been done successfully in many states.

ODOT is trying to use this for expansion joints and have combined this effort with a research project. A pilot project is set up for August in Division 3 on SH-3E, east of Shawnee over the North Canadian River. Corps of Engineer considering using UHPC and ODOT may monitor that work.

Using Data to Improve Traffic Incident Management

Brad Mirth reported Alan Stevenson and Raina Wilson, along with a TIMS instructor, attended a recent Division Engineer meeting and a presentation was made that was well received. The presentation was considered an introduction to TIMS and was not a training for TIMS. 5100 responders have been trained to date.

Mirth noted that all 2017 accident data will have special code that identifies secondary crashes. Entry for this data is through PARIS. An algorthim is being developed to identify other secondary accidents from this data.

Tulsa 911 is working with ODOT to strip accident data from their website.

Working with DPS to incorporate DPS data into ODOT TIMS web interface. DPS has not fully launched their system. ODOT reviewing incident data and developing performance measures for TIMS, such as lane closures, clearance times and secondary crashes.

ODOT is participating in the TIMS Coalition which meets monthly. Mikie HInkston noted that a bill was signed into law that requires all wrecker and recovery operators in Oklahoma to have TIMS training. Expected to be implanted no later than January 2018. Also, EMTs will be required to have TIMS training beginning in January 2018 – currently over 8000 EMTS in Oklahoma. Hinkston attributed the regulatory actions to the strength of the TIMS Coalition and its wide-based industry participation including ODOT, DPS, Health Department, industry and others. Virgil Bonham, DPS TIMS Coalition member, noted to HInkston that the wrecker industry is openly accepting of the regulation.

Previous EDC Initiatives

- Smart Work Zones

  A lite version of SWZs has been developed with detectors and portable DMS with no cameras, compared to full SWZ with cameras and a web-based server. Several webinars have been attended. Criteria being developed on when to use SWZ on projects to consider ADT, lane closures and other items. Specification language needs to be developed addressing subcontractors who do not address SWZ. Traffic control contractors have been approached

regarding SWZs – 1 meeting held to date. Discussion have been held on incorporating portable message signs into the ITS architecture so they could be used during incidents.

Driver assist (service patrol) program is underway. Contractor has ordered a vehicle.

Glabas noted that currently SWZs issues are handled through Traffic Engineering (lite version) and ITS (full version). Contractor interest in work zone safety and discussion between ODOT and the industry have been taking place for some time. Glabas noted that ODOT is worked with AGC on a recently clinic.

- Geosynthetic Reinforced Bridges
  Shannon Sheffert reported that there is little traction from the counties on this topic due to the current specifications regarding block-size. New research is being considered addressing this issue.

- Road Diets
  Denise Slattery noted a project in Division 4, SH-51 in the City of Yale, is at 60% submittal for right-of-way plans. Project will be let in 2019 or 2020.

- Standards for Concrete Precast Structures
  Consultant contract awarded recently and Notice-to-Proceed was issued a few weeks ago. Initial meeting will be held soon. First standards expected by the end of 2017, maybe by October. This effort was funding through the STIC 2016 Incentive Funds.

Basharat Siddiqi noted that Louisa Ward has put together a summary on all EDC-3 efforts, accomplishments, gaps, and product use. This has been provided to ODOT for review and will be shared with the STIC following review. Intent of this document is toward lessons learned and how to use this information moving forward.

Special Committee on Special Initiatives (SCSI)

This committee has never had any direct EDC innovation assigned to it. Covers general topics that may not fit the other committees. A meeting was held on June 13 to set goals for this committee in support of the STIC. General goals revolve around supporting STIC, reviewing EDC innovations toward scaling those efforts to all partners and to provide input to STIC on relevant innovations and opportunities for consideration.

Two priority issues for consideration are membership and website development. Membership is an issues from previous meetings regarding maintaining a broad program in support of transportation industry partners. Development of a website for STIC needs is an issue that has been discussed and could logically benefit the STIC in maintaining a central locale to keep abreast current and past EDC efforts.

Basharat Siddiqi noted that the STIC Excellence Award, a new FHWA program, is a topic that could be marketed through the SCSI.

Pamela Jurney noted that the National Trial Transportation Safety Plan, currently under review, does not include any data from Oklahoma. It would be appropriate to ensure that this data is considered for this. David Glabas noted that this data is incorporated into general Oklahoma data, but is not able to be identified as such. This issue is one that ODOT and tribes are aware of in that there is not an easy to define geographic location for Oklahoma tribes.

Ron Curb reported on CAV review. The industry is migrating toward technology being contained within the vehicles and moving away from relying on using roadway conditions or sensors for input. Rhode Island has issued a research contract to develop a CAV roadmap. Oklahoma efforts are toward maintaining general knowledge of industry direction. Richard Jurey noted a project in which an autonomous vehicle will follow maintenance efforts as a shadow vehicle. Mirth noted Colorado will be implementing this. Viplav Putta reported on a recent study released regarding mobility as it related to automated vehicle technology. Tulsa was ranked as No. 10 and Oklahoma City was ranked between 11-20, indicating that both of the cities are viable sites for AV implementation.

New Business

A proposal for FFY17 STIC Incentive Funds was distributed by Walt Peters. The proposal revolves around using an unmanned aerial vehicle (UAV), or drone, to be used to support bridge inspections. Technology attributes include placing a camera on the top of a drone and using 360° cameras. The proposal will be routed through STIC members for comment with replies requested by July 7. Processing for these funds needs to be complete by September 30.

Basharat Siddiqi commented on Accelerated Innovation Deployment (AID) Demonstration Funding. This is a first-come first-serve program and is a competitive program. Currently Oklahoma has no pending proposals. The STIC encourages input regarding this program.

Siddiqi noted that the next EDC progress report will be due July 14. He wanted to ensure that FHWA staff was interacting with EDC sponsors in support of this deadline.

Closing Comments

Dawn Sullivan and Basharat Siddiqi thanked the STIC for a good meeting. The next meeting date will be set for September and STIC members will be notified.