

Oklahoma State Transportation Innovation Council (STIC)

Meeting Minutes: Thursday, September 29, 2016, at 1:00 pm

Meeting Location

Oklahoma History Center
Oklahoma Historical Society Boardroom
800 Nazih Zuhdi Drive
Oklahoma City, OK 73105-7917
405-522-4484

Meeting led by Oklahoma Department of Transportation (ODOT)

Director of Capital Programs Dawn Sullivan, P.E. and

FHWA – OK Division Administrator Basharat Siddiqi, P.E.

Welcome and Opening Comments

Director Dawn Sullivan, P.E. announced that in the near future, several members of the committee will be crafting a communication plan.

Division Administrator Basharat Siddiqi, P.E. mentioned concept of Innovation Day implemented by STIC in Pennsylvania as example for Oklahoma.

Every Day Counts (EDC)-3 Standing Committee & Initiative Chairs - STIC Update

STANDING COMMITTEE ON CONSTRUCTION, MAINTENANCE & MATERIALS

FY16 STIC Incentive Project (Precast Drainage Structure Design)

George Raymond, P.E. - Construction Maintenance and Materials

e-Construction:

Florida has shared ideas concerning goal of paperless environment

3D Engineering Models: Schedule, Cost and Post-construction

Two years ago \$45,000 of STIC money used to purchase Global Positioning System (GPS) equipment for construction personnel.

Three sets of GPS Equipment received \$100,000 in matching funds.

GPS equipment is currently in place; training has been successful.

Trial projects using design files for automated construction have needed improvement.

Bryan Cooper - High Friction Surface Treatment (HFST)

Contractor laid Mine Chat for HFST. Since the section is only 500 feet, it limits collection of skid data. Cooper has placed Information for Every Day Counts on ODOT's U-Drive.

Larry Patrick - At the National Center for Asphalt Technology (NCAT), granite, porous sand stone, and mine chat were laid for collecting data. So far, best results for friction numbers range from upper 50s to lower 60s.

Ron Curb, P.E. – announced release of Highlighter newsletter for Office of Research & Implementation (OR & I). He handed out an example of the Highlighter. He referred to bauxite as well as the National Cooperative Highway Research Program and tack coat research.

Waseem Fazal, P.E. – passed out tri-fold pamphlet about Intelligent Compaction

Larry Patrick – reported that field personnel want real time forensics equipment to measure density. In the future, Waseem Fazal will develop specification.

Shannon Sheffert, P.E. – Project in Lincoln County finished in late August - will soon have ribbon cutting. During project, there was difficulty obtaining acceptance for new equipment and methods. Personnel in Kay County expressed concerns using small blocks versus large blocks during construction.

Walt Peters, P.E. – Attended EDC-3 in Saint Louis where researchers compared Ultra-High Performance Concrete (UHPC) with strength of 12,000 pounds per square inch (psi) compared to 4000 psi for common concrete.

Dr. Floyd is looking for materials available within state, perhaps east of Shawnee.

Metal headers cannot be milled; Concrete headers can be milled.

Instead of hiring a contractor, possibility of bridge crew in Division 3 doing construction.

Director Sullivan, P.E. asked two questions:

- 1) How to correlate secondary accidents due to queue 2 miles ahead?
- 2) Where are accidents occurring relative to work zones? Secondary accidents?

Data is currently being entered into Computer Aided Design (CAD) system.

Shawn Lockwood is working with Electronic Position Switch (EPS)

STANDING COMMITTEE ON SAFETY, MOBILITY, AND TECHNOLOGY:

Alan Stevenson, P.E.

Smarter Work Zones

Monitor Number – Process may soon be automated.

Light Version and Full Zone Version are both under review.

Decision concerning version to purchase is being determined using this criteria:

Annual Average Daily Traffic (AADT), queue lengths.

There are an estimated 15 webinars on Work Zone Safety.

STANDING COMMITTEE ON PRE-CONSTRUCTION:

Caleb Austin, P.E., ODOT Roadway Design Division Engineer

Road Diets (Roadway Reconfiguration)

Caleb Austin explained that Road Diets means converting 4 lanes of traffic to 2 lanes with center lanes in both directions [for vehicles] with the remaining lane reserved [for other forms of transportation.] In Iowa, Road Diets used for low volume highways have reduced accidents by 45% with reduced accidents by 19% in California.

Division Administrator Basharat Siddiqi, P.E. mentioned that although there has been some resistance from the public, Road Diets have worked well in Louisiana.

Research Engineer Teresa Stevens, P.E. asked: What is optimum length for road diets?

Austin replied Road Diets are for streets running through town rather than rural.

Austin announced that he would be meeting with Pedestrian and Bicycle Coordinator Jessica Scott the next day.

Craig Moody – Improving ODOT & Railroad Coordination
Moody reported that as of October, \$100 million has been used for the Railroad Crossing Safety Initiative.
Nearly 300 projects have been cleared by the Environmental Division.
Railroad Certification Process for DOT Vault is being improved.
Engineering intern has completed 300 drawings.
Coordination has resulted in very little “snail mail”
Nearly \$45 million has been used for 150 Railroad projects.
Some projects have included: Video-taping, Functionality, as well as In-pavement lighting using Light Emitting Diodes (LEDs)

STANDING COMMITTEE ON SPECIAL INITIATIVES:

State Research Engineer David Ooten., P.E.
Membership Review has had no activity since last meeting.
Office of Research & Implementation is offering support for implementation outreach, ideas for implementation, and on-going STIC initiatives.

Caleb Austin (spoke on behalf of Denise Slattery, P.E.) FY16 STIC Incentive Project
Precast Drainage Structure Design
Austin reported that Drainage Structure Design has saved hundreds of man hours.
ODOT will contract implementation.

FHWA-OK Assistant Division Administrator Louisa Ward., P.E. – EDC-4 Initiatives

EDC-4 Initiatives can be found on this webpage:

http://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/

Ms. Ward mentioned three EDC-3 programs that will continue as EDC-4 Initiatives:

- Data Driven Safety Analysis (DDSA)
- e-Construction
- Ultra-High Performance Concrete Connections for Prefabricated bridge elements and systems (PBES)

Several new initiatives for EDC-4 are:

- Road Weather Management – Weather-Savvy Roads [Path Finder]
- Using Data to Improve Traffic Incident Management (TIM)
- Safe Transportation for Every Pedestrian (STEP)

Director Dawn Sullivan - New Business

Research Engineer Teresa Stephens announced new research cycle as of 1 October this year. Announcement concerning equipment demonstrations for Oklahoma Transportation Research Day were also made.

Closing Comments and establishment of next meeting date, time, and location:

FHWA Division Administrator Siddiqi announced EDC Summit.

Centerline Video about Every Day Counts program is a future possibility.

EDC-4 Conference will be held in Austin Texas from 6 to 7 December.

Next \$100,000 in STIC funding for Every Day Counts will be released in 2017.

Assistant State Research Engineer Ron F. Curb, P.E. asked about deadlines for obtaining EDC – 4 funding.

Upcoming STIC Meeting Schedule

October 12th, 1:30 pm – 3:00 pm (National Webinar)

December 14, 2016 selected for next STIC meeting in Oklahoma

Location for all OK STIC meetings:

Oklahoma Historical Society Boardroom, Oklahoma City, OK unless notified otherwise.

Adjourn