



3D Engineered Models for Stringless Paving Workshop

St. Louis, MO on August 13-14, 2014

As the highway industry looks for greater productivity through electronic tools and methods, 3D modeling is fast becoming a standard for project delivery. From planning to construction, State transportation agencies (STAs) across the country are realizing quality, cost, and time benefits from using 3D modeling. For construction, this includes more accurate earthwork computations, clash detection, stringless milling and paving, and automated machine guidance. Contractors are leading the way in many areas. The FHWA and the Missouri Department of Transportation are hosting this workshop highlighting:

- State of the practice – procedures and technology
- Construction quality assurance methods
- Implementation strategies for success
- Answers to attendees' questions on issues and implementation
- Field demonstration on the technology

Who Should Attend

The workshop is designed for all stakeholders with significant roles in utilizing and deploying 3D modeling – STA planning, design, survey, construction offices; FHWA Division offices; consultant designers; construction contractors; software providers; equipment providers; and research/academia. The aim is to demystify 3D modeling and facilitate integrated implementation across all project delivery phases towards better construction and beyond. This requires leadership from the STA and coordination with partner stakeholders. Workshop participation is by invitation only, so that each state DOT can invite those stakeholders that may support future implementation efforts.

location

Sheraton Westport Chalet

191 Westport Plaza, St. Louis, MO
August 13 (8 am-5 pm); August 14 (8 am-noon)

Missouri Workshop Topics



Day 1

Overview of 3D Engineered Models for Highway Construction

Working with 3D Models in Design and Construction

Applications of 3D Engineered Models During Design

Contractor's needs to support 3D Models

Electronic Data and the Law

Creating a Plan to Implement 3D Engineered Models for Construction

Day 2

Field demo - Route 364/Page Avenue

Hard hat, safety vest and safety glasses required.

Workshop Registration deadline: August 6, 2014

Hotel deadline: August 1, 2014

Workshop participation is by invitation only, and there is no registration cost. Please complete the **attached registration form** and email it to **Denise Wagner**, dfwagner@iastate.edu; (phone 515.294.5798).

For additional information about the workshop or the St. Louis Route 364/Page Ave Phase 3 Project, check out the project web site, www.modot.org or contact Sarah Kleinschmit, MoDOT Field Materials Engineer at 573.751.2926

ADDITIONAL OPPORTUNITIES

3D Modeling Webinar Series

In addition to workshop opportunities, a FREE webinar series has been developed. For more information, visit:

www.fhwa.dot.gov/everydaycounts/edctwo/2012/3d_webinars.cfm



3D Engineered Models for Stringless Paving Workshop

Hosted by the Missouri Department Transportation and FHWA Missouri Division

Day 1: Presentation Session

7:00am Registration

8:00 Welcome – Tom Cackler, National Concrete Pavement Technology Center

- Welcome & Desired Goals - Dave Ahlvers, Missouri DOT State Construction & Materials Engineer
- Kevin Ward - FHWA Missouri Division Administrator

8:30 Overview of 3D Engineered Models for Highway Construction – Gabe Nelson, Snyder and Associates

- State of Practice and Why Implement this Technology
- Level of Details in 3D Models
- How to Get Started

9:30 BREAK

10:00 Capturing Existing Conditions in 3D Engineered Models

- Overview of survey methods & technology to meet desired level of accuracy
- Deliverables from 3D Surveys (LIDAR)
- Managing large data sets

10:45 Working with 3D Models in **Design** and Construction, Part 1 – Brian Smith, Iowa DOT

- Creating 3D Design Model – Level of detail, calculating quantities & visualization
- 3D Model – Level of detail matrix
- Deliverables for bidding
- Contractors' needs to support 3D models for AMG and Stringless paving – Millstone Weber

11:45 LUNCH / Presentation

Electronic Data and the Law - John Koenig, Regional Counsel MoDOT; Gabe Nelson, Snyder's & Assoc

1:30 Working with 3D Models in Design and **Construction**, Part 2

- Project example: I35 experience with unbonded overlay – John Donahue, MoDOT
- Construction Inspection & Administration - John Lobbestael, MiDOT
- Using 3D Models in the Field – What is useful to the contractor? – Robbie Pope, Gomaco
- Quality Process – Eric Kopinski, MoDOT

4:00 Creating a Plan to Implement 3D Engineered Models for Construction

- Identifying and establishing vision, goals, roles, responsibilities and accountability measures
- Identifying baseline challenges
- Share success stories and learned lessons

4:30 Q & A Speakers Panel – Tony Babcock, National CP Tech Center moderator

5:00 Adjourn for the Day

Day 2: Project Example & Demonstration of Technology

7:00am Continental breakfast

8:00 Project Overview - Eric Kopinski, MoDOT

9:00 Board buses and travel to project site

Project tour/Quality procedures (Paving, MIT scan, etc.)

11:30 Board buses and return to hotel

Noon Adjourn



REGISTRATION

3D Models for Stringless Concrete Paving Workshop August 13 - 14, 2014 St. Louis, MO

Sheraton Westport Chalet Hotel
191 Westport Plaza, St. Louis, MO 63146

Hotel reservations deadline: **August 1**
888.627.7066
(reference Chalet – ISU/MoDOT)
Conference rate \$108 (until August 1)

Email form to:
Denise Wagner, Secretary
National Concrete Pavement Technology Center
dfwagner@iastate.edu
Fax: 515.294.0467
Questions? Call - 515.294.5798

PLEASE REGISTER BEFORE AUGUST 6, 2014
No registration fee

Name:

Organization/
Department:

Address:

Email:

Phone:

Please check the sessions you will attend:

Wednesday, August 13

Thursday, August 14

Workshop Sessions

Site Visit – Route 64

Hard hat, safety vest & safety glasses required

Please check if you need a hard hat to be provided

If you request vegetarian meals