

Technical Program (DRAFT 3/20/15)



Monday April 20, 2015

Breakout Session 1-A:

8:30-10:00am

The 41-mile Clinton – Ionia – Shiawassee Non-Motorized Trail

This presentation will describe the planning, funding, design and construction of a 41-mile trail in Central Michigan. The engineering challenges associated with converting 9 wooden and steel railroad trestles, negotiating a path through 6 downtowns, and laying 8 miles of asphalt and 33 miles of limestone pavement will be presented.

Presenter:

Scott Post, PE

Prein & Newhof, Grand Rapids MI

Engineer-Proofing Your Non-Motorized Mobility Plan

Have you ever hit a roadblock in taking your non-motorized dreams from the planning phase into reality? Quite often, your road-block involves engineering issues. This presentation will show some of the common sticking points to implementing a non-motorized plan; and present information you'll need to work with all the stakeholders, including the engineers.

Presenter:

Arianna Jeske, PE

Prein & Newhof, Grand Rapids, MI

Breakout Session 1-B:**8:30-10:00am****HCS2010 Overview**

This presentation will be the first of four sessions focused on providing information on the concepts, limitations, methodology, and data requirements for analysis using the various modules that create Highway Capacity Software (HCS) 2010. The first session will cover the analysis of signalized intersections, urban street segments, and urban street facilities. Example problems demonstrating use of the software will be presented.

Presenters:

Michael Kondziolka

William Reynolds

Kimley-Horn and Associates, St Paul, MN

Safety Roundtable Panel Discussion**10:30am-12:00pm**

Mark Bott, Michigan DOT (tentative)

Mike Holowaty, Indiana DOT (tentative)

Michelle May, Ohio DOT

Rick Drumm, FHWA (tentative)

HCS 2010 Signalized Intersection Training**10:30am-12:00**

This is the second of four presentations focused on providing understanding of Highway Capacity Software (HCS) 2010. This session will follow up the previous presentation on urban streets with an analysis of urban interchanges. Next, the various components of freeway analysis, including basic segments, weaving segments, merge, and diverge segments will be covered. Example problems demonstrating use of the software will be presented.

Presenters:

Michael Kondziolka

William Reynolds

Kimley-Horn and Associates, St Paul, MN

Luncheon**Keynote Presentation****12:00-1:15pm***Policy Issues Related to Connected Vehicles*

This talk will briefly survey ongoing transportation work at Carnegie Mellon in the Traffic 21 Institute, including the 30 years of experience in developing autonomous vehicle technology and the ongoing development of a connected vehicle test bed. Short and long term policy implications of connected and automated vehicles will be reviewed for motor vehicle manufacturers, insurance companies, licensing and regulatory agencies and roadway managers.

Dr. Chris Hendrickson

Director Traffic 21 Institute, Carnegie Mellon University, Pittsburgh, PA

Breakout Session 2-A:**1:30-2:30pm***But Officer, A Signal Was There Yesterday!*

The City of Columbus has begun the process of removing unwarranted signals with 23 removed in 2013, and approximately 35 expected for removal subsequently. During the course of this process, the City has encountered a number of challenges and lessons learned with removing signals in well-established neighborhoods, such as removing parking and other obstructions to improve the intersection sight

distance, confusion associated with removing closely spaced signals, and determination of the appropriate proposed traffic control.

Presenters:

Reynaldo Stargell, PE – City of Columbus, OH

Patricia Fought, PE – City of Columbus, OH

South Bend Two-Way Conversion

The City of South Bend has launched the Smart Streets Initiative to improve the role of streets through implementation of the Complete Streets philosophy. As part of this initiative, the Downtown Two-Way Conversion Plan was developed with a goal of revitalizing the downtown. This session will describe the Smart Streets Initiative, discuss the traffic study of the Downtown Two-Way Conversion Plan and provide an update on the conversion Process.

Presenter:

Ryan Huebschman, PE - American Structurepoint, Indianapolis, IN

Corbitt Kerr, PE, PhD – City of South Bend, IN

Breakout Session 2-B: 1:30-2:30pm

Pedestrian Hybrid Beacon site selection process

The feasibility of mid-block pedestrian/bicycle crossing treatments was evaluated at nine locations in Franklin County, Ohio. Warrant criteria for marked crosswalks (FHWA publication HRT-04-100 and OMUTCD Section 3B-18), pedestrian hybrid beacons (OMUTCD Chapter 4F) and guidelines for selecting pedestrian crossing treatments (NCHRP Report 562) will be discussed as tools used to prioritize crossing locations and pedestrian treatments

Presenter:

Beth Sliemers, PE

LJB Inc., Miamisburg, OH

Improving Mobility Through Road Diets

The presentation will walk through the planning, analysis, design, and implementation of road diet projects. The presentation will discuss guidelines for identifying and evaluating potential road diet sites, design concepts such as typical cross-sections, and lessons learned from experiences. This presentation will provide a summary and highlights from various projects.

Presenter:

John Brigham, PE, PTOE

Parsons Brinckerhoff, Cincinnati, OH

Breakout Session 2-C: 1:30-2:30pm

HCS2010 Training Module

This is the third of four presentations focused on providing understanding of Highway Capacity Software (HCS) 2010. This session will cover the analysis of multilane and two-lane highways. Example problems demonstrating use of the software will be presented.

Presenters:

Michael Kondziolka

William Reynolds

Kimley-Horn and Associates, St Paul, MN

Breakout Session 3-A: 3:00-4:00pm

Enhancing Transportation Projects through Envision

This session will provide examples of how exploring and utilizing the concepts of the ISI Envision system within the planning and design of transportation projects can improve the economic, environmental and social aspects for users and affected communities. The Envision rating system is used to prolong the usefulness of a project to the greatest extent feasible using the least energy and resources possible, all while improving the quality of life for those impacted by the project.

Cassie Reiter, PE, ENV SP

Crawford, Murphy, & Tilly, Indianapolis, IN

Car Sharing in Columbus, Ohio. We Tried, and We Like It

In 2013, Columbus began a one-year pilot to evaluate the benefits and impacts of car-sharing on public streets. The pilot was conducted with significant public involvement and with some serious data reporting. In the end, Columbus favored allowing car-sharing on a permanent basis. There is a story to tell about how the pilot was conducted, how the public responded, and what impacts and lessons were learned.

Presenters:

Randall Bowman, PE – City of Columbus, OH

Patti Austin, PE – City of Columbus, OH

Breakout Session 3-B: 3:00-4:00pm

Implementing Incident Response Timing Plans

In order to successfully implement incident management timing plans, the library of plans need to be able to be developed quickly, they need to be flexible to handle a wide range of events, and they need to be intuitive for operators/engineers to select plans on a real-time basis. The presentation will highlight how those objectives were achieved in Macomb County, Michigan and include a case study of how the plans were operated during the major flood event in August of 2014. It will also highlight how those plans are utilized for construction activities and real-time, day to day, unplanned, nonrecurring congestion.

Presenter:

Tim Brandstetter, PE, PTOE

Kimley-Horn of Michigan, Inc. – Troy, MI

The Future of the MUTCD

Most people don't realize that this major tool of our trade is a living document that is under constant review and revision. This presentation will include a brief overview of the integral workings of the revision process and give an update on proposed changes to the various sections of the next MUTCD.

Presenter:

Steve Jewell, PE - DLZ Inc., Columbus, OH

Eagan Foster, PE – City of Dublin, OH

Breakout Session 3-C: 3:00-4:00pm

This is the final presentation of the four part training focused on providing understanding of Highway Capacity Software (HCS) 2010. This session will cover the analysis of unsignalized intersections, including two-way stop control and all-way stop control intersections. The analysis of roundabouts will also be covered in this session. Example problems demonstrating use of the software will be presented.

Presenters:

Michael Kondziolka

William Reynolds

Kimley-Horn and Associates, St Paul, MN

Traffic Bowl 4:30-6:00pm

Competing Schools:

University of Dayton, Purdue University, Trine University, Wayne State University, Western Michigan University

Tuesday April 21, 2015

Breakfast 8:30-9:00am

Candidates for ITE International Vice President

Shawn J. Leight - Vice President, CBB Transportation Engineers + Planners, St. Louis, MO

Jeremy H.C. Lin - President and CEO, KOA Corporation, Monterey Park, CA

DOT Roundtable 9:00-10:30am

Jim Barna – Chief Engineer, Ohio DOT

Greg Johnson – Chief Operations Engineer, Michigan DOT

Jay Wasson – Deputy Commissioner Engineering and Asset Management, Indiana DOT

Breakout Session 4-A: 10:45-11:45am

I-65/Worthville Road New Interchange

Alternative analysis and practical design solutions resulted in \$4.3M in savings on the \$22M I-65 Interchange project in Greenwood, IN. The project was championed by a unique public-public partnership between the City of Greenwood, Indiana and the Indiana Department of Transportation (INDOT). The alternative analysis showed that a Diverging Diamond Interchange was not only the most appropriate interchange in terms of maximizing traffic capacity and minimizing traffic safety impacts, but would also require the fewest environmental impacts, the least right-of-way acquisition, and the lowest construction cost.

Presenter:

Adam Burns, PE

Crawford, Murphy, & Tilly, Inc., Indianapolis, IN

Evaluation of Camouflaged Traffic Detectors for Work Zone Monitoring

New devices have been introduced for providing temporary traffic monitoring adjacent to work zones, such as construction radar devices, or CRDs. These devices use radar-based speed detection and are camouflaged as typical work zone traffic barrels. The Indiana Department of Transportation installed 16 of these CRDs on a construction project on I-80/94 near Gary, IN. This

presentation assesses the accuracy of CRD speed reporting by comparison with crowdsourced probe vehicle data.

Presenter:

Michelle Mekker - Purdue University

Darcy Bullock – Purdue University

Breakout Session 4-B:

10:45-11:45am

ODOT Operations Update

Updates will be provided on revised or new initiatives being implemented by ODOT including the Interchange Operations Study which is an abbreviated form of a formal interchange modification study.

Presenter:

Dave Holstein, PE

Ohio DOT Administrator of Roadway Engineering

Roundabouts – Lessons Learned through Video Analysis

The Road Commission for Oakland County recently put up video cameras at roundabouts. A review of the video produced interesting results in both the causes of accidents and the accuracy of the police reports. This presentation will show video of accidents and summarize the findings.

Presenter:

Gary Piotrowicz, PE, Deputy Road Commissioner

Road Commission for Oakland County, MI