

745 (BKLS17-0025)

# Simulation of Roundabouts to Advance Implementation

## Event Description

Craig Parks, Boone County, Indiana, presiding

*Sponsored by Standing Committee on Roundabouts (ANB75)*

**Modeling and Analysis of Multimodal Modern Roundabouts (17-03947)**

BidouraKhondaker, University of Calgary  
Lina Kattan, University of Calgary  
Karan Arora, University of Calgary  
Suman Mishra, University of Calgary  
David Breu, ISL Engineering and Land Services Ltd.  
Barkely Law, ISL Engineering and Land Services Ltd.

**Effect of Calibration Process in Comparison of Simulated and Observed Rear-end Conflicts at Roundabouts (17-02598)**

Alessandro Vitale, University of Calabria  
Vincenzo Gallelli, University of Calabria  
Giuseppe Guido, University of Calabria  
Demetrio Carmine Festa, University of Calabria

**Operational Evaluation of Two-Lane Roundabouts at Freeway Ramp Terminals (17-06219)**

Zhixia Li, University of Louisville  
MadhavChitturi, University of Wisconsin, Madison  
Andrea Bill, University of Wisconsin, Madison  
David Noyce, University of Wisconsin, Madison

**Comparison of Driver Navigation at Turbo Roundabouts and Modern Two-Lane Roundabouts: A Simulation Study (17-03471)**

Elisha Wankogere, Western Michigan University  
Valerian Kwigizile, Western Michigan University  
Jun-Seok Oh, Western Michigan University  
Pavel Ikononov, Western Michigan University

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# Data-Driven Approach to Advancing Roundabouts

## Event Description

Scott Zehngraff, Georgia Department of Transportation, presiding

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### **Investigation of Crosswalk Design and Driver Behaviors at Roundabouts (17-00025)**

Daniel Findley, Institute for Transportation Research and Education

Sarah Searcy, North Carolina State University

Bastian Schroeder, Kittelson & Associates, Inc. (KAI)

### **Issues in the Planning and Management of Roundabouts in Cold, Snowy Regions (17-00960)**

Kazunori Munehiro, Civil Engineering Research Institute for Cold Region

Tetsuya Takada,

Shingo Sato, Civil Engineering Research Institute for Cold Region

Satoshi Takamoto, Civil Engineering Research Institute for Cold Region

Tateki Ishida, Civil Engineering Research Institute for Cold Region

### **Evaluation of Pedestrian Crosswalk Spacing at Roundabouts Based on Shockwave Theory (17-01530)**

Boon Teck ONG, Booz Allen Hamilton, Inc.

Milos Mladenovic, Aalto University

Steve LeBlanc, Johnson Mirmiran and Thompson

### **Feasibility of Using Truck Harsh Braking Incidents for Predicting All Vehicle Accidents at Roundabouts (17-02147)**

JwanKamla, University of Nottingham

Andrew Dawson, University of Nottingham

Tony Parry, University of Nottingham

804 (BKP17-0017)

# Design, Operations, and Safety of Roundabouts

## Event Description

Jerome Champa, California Department of Transportation (CALTRANS), presiding

*Sponsored by Standing Committee on Roundabouts (ANB75)*

**Application of Random Parameter Model to Estimate Truck Accidents at Roundabouts (17-04458)**

JwanKamla, University of Nottingham  
Tony Parry, University of Nottingham  
Andrew Dawson, University of Nottingham

**Evaluation of Roundabout-Related Single-Vehicle Crashes (17-04508)**

Beau Burdett,  
Andrea Bill, University of Wisconsin, Madison  
David Noyce, University of Wisconsin, Madison

**Roundabout Deflection: Testing and Improving the Italian Standard (17-04960)**

Nicola Berloco,  
Pasquale Colonna, Polytechnic University of Bari  
Paolo Intini,  
Vittorio Ranieri, Polytechnic University of Bari

**Modeling Queue Lengths at Roundabouts at Freeway Ramp Terminals (17-06665)**

Zhixia Li, University of Louisville  
MadhavChitturi, University of Wisconsin, Madison  
Andrea Bill, University of Wisconsin, Madison  
David Noyce, University of Wisconsin, Madison

**Headway Acceptance Decisions on Single-Lane Roundabouts in Spain: Critical and Follow-Up Headway (17-06831)**

Marilo Martin Gasulla, Universidad Politecnica de Madrid  
Alfredo Garcia, UniversitatPolitecnica de Valencia  
Carlos LLorca, Technical University of Munich

112 (JWW17-0004)

## Public Involvement for Innovative Intersection Projects

### Event Description

Projects such as roundabouts and other innovative intersection designs are providing challenges and opportunities for public involvement practitioners. Participants will have the opportunity to hear presentations on the public involvement lessons learned on roundabout and innovative intersection projects and then be involved in roundtable discussions to brainstorm ways to combine education with public engagement to ensure a smoother public meeting and ultimately a safer driving experience.

Walter Moore, Neel-Schaffer Inc.; Rusty Ennemoser, Florida Department of Transportation; Claudia Bilotto, WSP|Parsons Brinckerhoff, presiding

*Sponsored by Standing Committee on Public Involvement in Transportation (ADA60); Standing Committee on Roundabouts (ANB75)*

#### **Innovative Intersection Outreach Lessons Learned (P17-20683)**

Mark Lenters, GHD, Inc.

Andrew Heath, Georgia Department of Transportation

137 (BKW17-0003)

## Roundabouts and Channelized Turn Lanes: Access for Pedestrians, Particularly Those with Vision Disabilities

### Event Description

There have been many concerns about access to roundabouts and channelized turn lanes for pedestrians, particularly pedestrians with vision disabilities. This workshop reviews research

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completed at roundabouts and channelized turn lanes and then walks participants through design procedures outlined in the guidebook developed by NCHRP Project 3-78b, Guidelines for the Application of Crossing Solutions at Roundabouts and Channelized Turn Lanes.

Janet Barlow, Accessible Design for the Blind (ADB), presiding

*Sponsored by Standing Committee on Roundabouts (ANB75); Standing Committee on Accessible Transportation and Mobility (ABE60); Standing Committee on Geometric Design (AFB10); Standing Committee on Operational Effects of Geometrics (AHB65); Standing Committee on Pedestrians (ANF10)*

**Pedestrian Safety at Roundabouts and CTLs: FHWA Perspective and Research** (P17-21860)  
Elizabeth Hilton, Federal Highway Administration (FHWA)

**NCHRP 3-78a and 3-78b: Research Background and Outline of the Guide** (P17-21861)  
Bastian Schroeder, Kittelson& Associates, Inc. (KAI)

**Overview of Design Process for Roundabouts and Channelized Turn Lanes** (P17-21862)  
Lee Rodegerdts, Kittelson& Associates, Inc. (KAI)

**Access Principles for Pedestrians who are Blind: Crossing and Wayfinding** (P17-21863)  
Janet Barlow, Accessible Design for the Blind (ADB)

**Wayfinding Assessment** (P17-21864)  
Janet Barlow, Accessible Design for the Blind (ADB)

**Crossing Assessment** (P17-21865)  
Bastian Schroeder, Kittelson& Associates, Inc. (KAI)

**Implications of Wayfinding and Crossing Assessments on Design Practices** (P17-21866)  
Lee Rodegerdts, Kittelson& Associates, Inc. (KAI)

**149E** (BKW17-0015)

# Can Consideration of Human Factors Issues Solve Operational Problems at Roundabouts? (HF-E Ticket required)

## Event Description

Roundabouts reduce fatalities and serious injuries, but some roundabouts experience operational problems or high crash numbers. Participants will review problem roundabouts and examine whether operational issues are related to human factors. Are human factors guidelines available or are new guidelines needed? The workshop goal includes citing available and needed research,

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which may also be used to inform potential future material for inclusion in the NCHRP Report *Human Factors Guidelines for Road Systems* .

Brian Walsh, Washington State Department of Transportation, presiding

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**Are roundabout designs meeting the performance expected of them? Are there human factors elements that contribute to a roundabout exceeding expectations for all users?** (P17-22062)

Brian Walsh, Washington State Department of Transportation

Mark Johnson, MTJ Engineering, LLC

**Standard and Innovative Signing and Marking Practices** (P17-22063)

Steve Thieken, Burgess and Niple, Inc.

(BKM17-0038)

## Roundabouts Committee

### Event Description

Eugene Russell, Kansas State University; Brian Walsh, Washington State Department of Transportation, presiding

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(BKG17-0004)

## Roundabout Video Theatre

### Event Description

Rachel Price, Reid Middleton, Inc., presiding

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