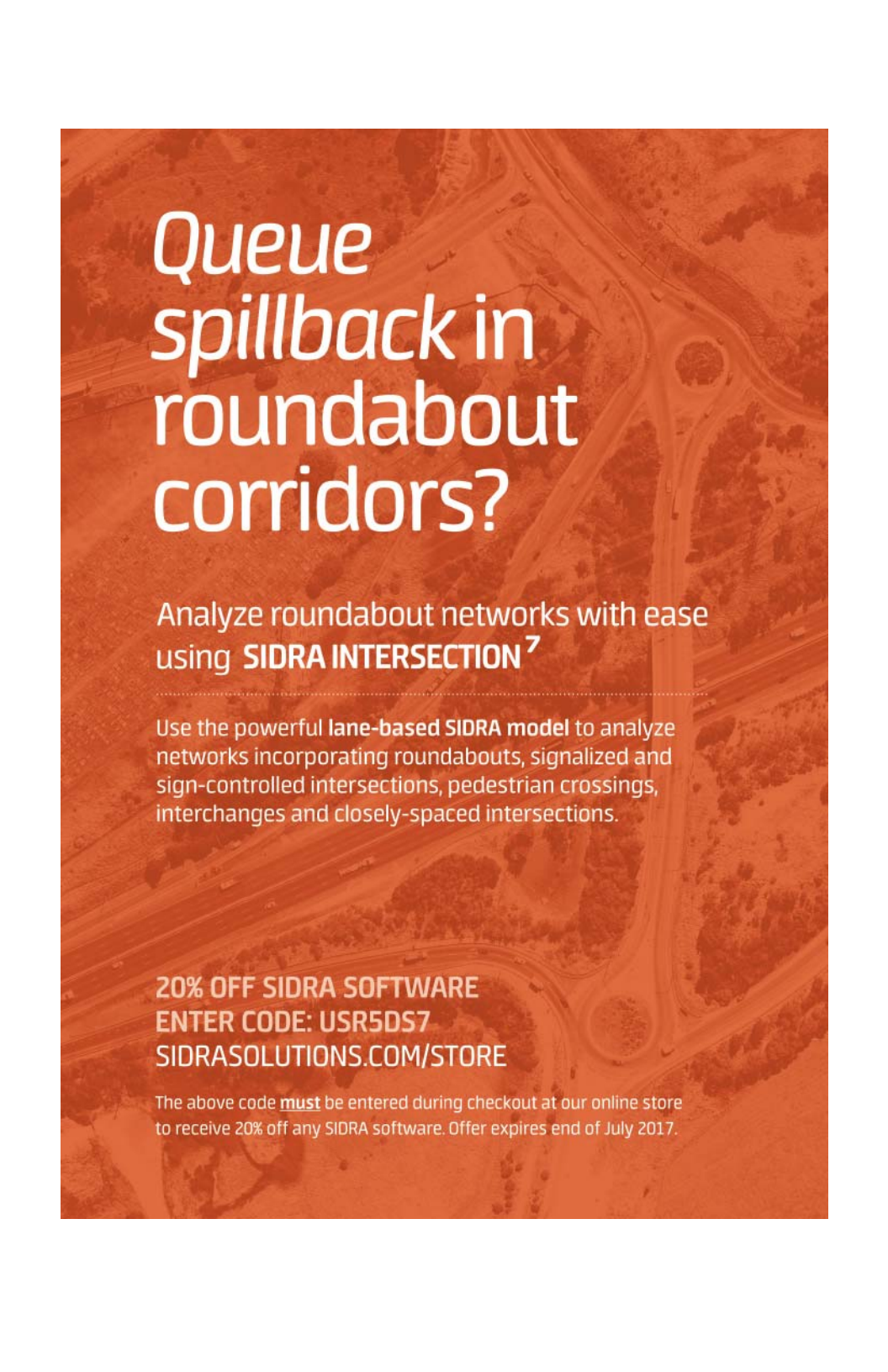




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Sunday - May 21, 2017

8:00 AM - 5:00 PM Technical Training

Monday - May 22, 2017

7:45 - 8:15 AM Moderators Meeting (305 B)
7:30 AM - 5:45 PM **Registration**
8:30 - 10:00 AM Opening Session
10:00 - 10:30 AM **Break**
10:30 AM - 12:00 PM Technical Sessions
12:00 - 1:30 PM **Lunch**
1:30 - 3:00 PM Technical Sessions
3:00 - 3:30 PM **Break**
3:30 - 5:00 PM Technical Sessions
6:00 - 8:30 PM Networking at the Science Museum

Tuesday - May 23, 2017

7:15 - 8:15 AM AHB70 Committee Meetings (201)
8:00 AM - 5:45 PM **Registration**
8:30 - 10:00 AM **Breakfast** and Poster Session
10:00 - 10:30 AM **Break**
10:30 AM - 12:00 PM Technical Sessions
12:00 - 1:15 PM **Lunch**
1:15 - 3:15 PM Workshops and Technical Tours
3:15 - 3:45 PM **Break**
3:45 - 5:45 PM Workshops and Technical Tours
6:00 - 8:30 PM North Carolina Pig Pickin'

Wednesday - May 24, 2017

8:30 - 10:00 AM Technical Sessions
10:00 - 10:30 AM **Break**
10:30 AM - 12:00 PM Closing Session
12:00 - 1:00 PM **Boxed Lunch (Separate Fee)**
1:00 - 3:00 PM Joint AHB65 and AFB10 Committee Meetings (201)
3:00 - 3:30 PM **Break**
3:30 - 5:00 PM AHB65 Committee Meetings (201)
3:30 - 5:00 PM AFB10 Committee Meetings (202)

GET CONNECTED

Access the conference app by downloading Guidebook.

Password: AMTINC

Access WiFi by selecting **Urban Streets**.

Password: USS5STANTEC



Sunday - May 21, 2017

9:00 AM - 2:00 PM

Meet outside east
entrance of Raleigh
Convention Center

TT1 Northwest Raleigh Bike Tour

Trung Vo, City of Raleigh

8:00 AM - 5:30 PM

Meet in the
Main Lobby

TT2 Driving Tour of Alternative Intersections

Mike Reese, North Carolina Department of Transportation;
Gilbert M. Chlewicki, ATS/American

1:00 - 5:00 PM

305 A

TT4 The New Highway Capacity Manual 6th Edition: It's Not Your Father's HCM

Tom Creasey, Stantec; **Janice Daniel**, New Jersey
Institute of Technology, and **Bastian Schroeder**, Kittelson &
Associates

Monday - May 22, 2017

8:30 - 10:00 AM

Ballroom C

S01 Opening Session

Christa Greene, Stantec (Moderator)

Chief Deputy Secretary David Howard, North Carolina
Department of Transportation - *Welcome*

Kay Fitzpatrick, Texas A&M Transportation Institute -

*History of the Urban Street Symposium - Welcome to the 5th
Meeting*

Mike Surasky, WSP - *Partnership between TRB and ITE -
Welcome to Raleigh*

Maureen McAvey, McAvey Consulting - *Keynote - Metro
Winners & Losers: Five Trends to Watch*

10:00 - 10:30 AM

Break

10:30 AM - 12:00 PM

305 A

S02 Alternative Intersections - I

Sarah Wicklund, Patriot Transportation (Moderator)

Sarah O'Brien, Institute for Transportation Research and
Education, NC State - *Impact of Superstreet Operations on
Pedestrians and Bicyclists*

Travis Fluitt, Kimley-Horn & Associates, Inc. - *NC 55
Bypass & Avent Ferry Road "Reverse R-Cut"*

Liu Xu, University of Maryland - *Development of Interval-*

*based Planning Models for Evaluating the Bay Length in a
Signalized Superstreet*

Bradley Reynolds, HNTB - *An Application of the New
Synchronized Interchange Design*

10:30 AM - 12:00 PM

305 B

S03 Safety on Urban Streets

Todd Brooks, Atkins (Moderator)

Krista Nordback, Highway Safety Research Center,
University of North Carolina - *Motorist-Cyclist Crash Data
Needs for Bicycle Safety Analysis*

Thanh Q. Le, VHB - *Safety Effects of Turning Movement
Restrictions at Stop-Controlled Intersections*

Raghavan Srinivasan, Highway Safety Research Center,
University of North Carolina - *Safety Evaluation of Flashing
Yellow Arrow Treatment*

**Daniel Carter, Highway Safety Research Center, University
of North Carolina** - *Safety Evaluation of Pedestrian Countdown
Signals*

10:30 AM - 12:00 PM

306 A

S04 Design of Urban Streets - I

Larry Sutherland, WSP (Moderator)

Reza Jafari, North Carolina Department of Transportation -
*Characterizing and Treating Lane Discontinuities on North
Carolina Streets and Highways*

Lauren Blackburn, VHB - *Model Policies Guiding the
Implementation of Pedestrian Safety Countermeasures*

Sean Murphy, University of Nebraska – Lincoln - *Traffic
Simulation Software Performance with Complex Scenarios*

Marcus Brewer, Texas A&M Transportation Institute -
*Treatments for Designing Urban Roadways for the Aging
Population*

12:00 - 1:30 PM

Lunch

Ballroom C

Welcome Message: Nancy McFarlane, Mayor of Raleigh

Keynote Speaker: Sig Hutchinson, Chair, Wake County Board of Commissioners
Transportation and Building Healthy Communities

1:30 - 3:00 PM

305 A

S05 Alternative Intersections - II

Huaguo Zhou, Auburn University (Moderator)

Wei Zhang, Federal Highway Administration - *Signal Timing
Strategies for Georgia's First In-House Designed DDI*

Shannon Warchol, Institute for Transportation Research and Education, NC State - *DDI Signal Timing - Lessons Learned*

Yao Cheng, University of Maryland - *Concurrent Optimization of Signal Progression and Crossover Spacing for Diverging Diamond Interchanges*

Christopher M. Cunningham, Institute for Transportation Research and Education, NC State - *Current and Forthcoming Updates to the DDI Information Guide – Signal, Geometrics, and Safety*

1:30 - 3:00 PM

305 B

S06 Vision Zero - North Carolina

Matthew Peach, A. Morton Thomas and Associates, Inc. (Moderator)

Tracy Anderson, Institute for Transportation Research and Education, NC State - *Beyond Scare Tactics and Statistics - Communication Strategies for Behavior Change Campaigns*

Burke Foley, Institute for Transportation Research and Education, NC State - *Data Visualization: Bringing Awareness to Action*

Lisa Riegel, BikeWalk NC - *How Do You Spell Vision Zero? D-E-S-I-G-N*

Seth LaJeunesse, Highway Safety Research Center, University of North Carolina - *Vision Zero among Early Adopters: Applying Lessons from other Cities to the North Carolina Context*

1:30 - 3:00 PM

306 A

S07 Design of Urban Streets - II

Hermanus Steyn, Kittelson & Associates, Inc. (Moderator)

Joe Hummer, North Carolina Department of Transportation - *Interchange and Grade-Separated Intersection Designs that Promote Arterial Progression*

Amy Rosepiller, Burgess & Niple, Inc. - *Tremont Road: Completing the Street*

Joe Kirkland, HDR - *U-5710: Connecting the Coast to the City—A Case Study on Alternative Intersection Design at US 74 and Military Cutoff Road*

Dick van Veen, Mobycon - *Shared Spaces and Woonerfs - Why Not Here?*

3:00 - 3:30 PM

Break

3:30 - 5:00 PM

305 A

S08 Alternative Intersections - III

Henry Brown, University of Missouri (Moderator)

Brian Toombs, Burgess & Niple, Inc. - *DDI Lessons Learned*

Jeremy Neuman, HDR - *Frontage Roads and DDI's, An Atypical Pairing*

Thomas Chase, Institute for Transportation Research and Education, NC State - *Downstream Intersection and Ramp Terminal Considerations to Improve DDI Corridor Performance*

Karen Dixon, Texas A&M Transportation Institute - *Access Management Issues for Cross Streets near Interchange Locations*

3:30 - 5:00 PM

305 B

S09 Vision Zero - United States

Paul Trapp, Timmons Group (Moderator)

Paula Flores, Alta Planning + Design, Inc. *ITE/Vision Zero*

Veronica O. Davis, Nspiregreen LLC - *Building the Vision Zero Plan for the District of Columbia with the Public and Stakeholders*

Jesse Cohn, Fehr and Peers - *LA VZ Technical Analysis: A Data-Driven Effort to Eliminate Traffic Fatalities*

3:30 - 5:00 PM

306 A

S10 CV / AV in the Urban Environment

Amanda Good, Kimley-Horn & Associates, Inc. (Moderator)

Ed Bradley, TOYOTA | Product Regulatory Affairs, Safety - *An OEM Perspective on Connected and Automated Vehicles*

Michael Clamann, Duke University - *Did It See Me? Display Design for Autonomous Vehicles*

Matthew Gibb, Oakland County Michigan - *How Connected Vehicle Deployment is Impacting Oakland County's Traffic Signals*

6:00 - 8:30 PM

Networking

Presentation: Urban Design in Raleigh

North Carolina Museum of Natural Science's Nature Research Center,
121 West Jones Street, Raleigh 27601

Buses will depart from the east entrance of the Raleigh Convention Center (RCC) starting at 5:45 PM and continue circulating between the RCC and event location until 8:30 PM

Tuesday - May 23, 2017

8:30 - 10:00 AM

*Registration Area by
305A-B, 306A*

S11 Poster Session

David McDonald, Hanson Professional Services Inc. - *How Might Connected Vehicles and Autonomous Vehicles Influence Geometric Design?*

Richard Odynski, WSP - *Nope! That's within our Right-of-Way.*

Joseph E. Hummer, North Carolina Department of Transportation - *A Crash Modification Factor for Signalized Superstreet Intersections*

Will Hume, HDR - *Bus Rapid Transit: Geometry & Operations*

Smith Siromaskul, HDR - *US 192: A Different Take on BRT – A Case Study of Improving Operations for All Users*

Majed Al-Ghandour, North Carolina Department of Transportation & Florida Atlantic University - *The Impact of Junctions on the Frequency and Severity of Road Crashes in Florida*

Thanh Q. Le, VHB - *Safety Evaluation of Corner Clearance at Signalized Intersections*

Ananna Ahmed, University of Nebraska – Lincoln - *Driver Simulation State of the Practice and Next Steps*

Dan Cook, MRIGlobal - *Operational Effects of Consolidated Movements on Urban Arterials*

Sarah Smith, Highway Safety Research Center, University of North Carolina - *Pedestrian Safety Treatments at Unsignalized Crossings*

Jonathan S. Wood, South Dakota State University - *Evaluating The Interactive Effects of Traffic Volumes and Access Density On Crash Frequency*

Gilbert Chlewicki, ATS / AMERICAN - *Evidence of Pedestrian Dilemma Zones at Uncontrolled Crossings*

M. Scott Shea, University of Utah - *Safety Evaluation of Permitted Flashing Yellow Arrow Indications Considering Intersection Geometric Characteristics*

Subasish Das, Texas A&M Transportation Institute - *Converting Four-Lane Roadways into Five-Lane Roadways on Urban Structure: Study on Safety Effectiveness*

Lin Xiao, National Research Council/Federal Highway Administration - *Visualizing Time Series Analysis in Spatial Domain for Detecting Regional Scale Crash Events*

Pete Jenior, Kittelson & Associates, Inc. - *FHWA Safety*

Performance for Intersection Control Evaluation (SPICE) Tool

Christopher M. Cunningham, Institute for Transportation Research and Education, NC State - *Safety Findings at Seven of the First DDI's in the Country*

Marc Butorac, Kittelson & Associates, Inc. - *NCHRP 03-120 Assessing Interactions Between Access Management Treatments and Multimodal Users Update*

Roger Henderson, Ramey Kemp & Associates - *Pursuing Design Consistency for Bicycle Facilities*

Ashirwad Barnwal, Iowa State University - *Promoting Active Transportation: A TransCAD-based Approach*

Steven Stapleton, Michigan State University - *Predicting Yielding Compliance at Midblock Crossing Areas Based on Roadway, Traffic and Crosswalk Characteristics*

Chennan Xue, Auburn University - *Evaluation of Sound and Vibration of Directional Rumble Strips for Deterring Freeway Wrong-way Entries*

Yaojun Wang, University of Wisconsin-Milwaukee - *A Data-driven Approach to Design Feeder Bus Network based on Aggregated Cellphone Data and Open GIS Tool*

10:30 AM - 12:00 PM

305 A

S12 Alternative Intersections - IV

Ram Jagannathan, ATCS (Moderator)

Michael P. Reese, North Carolina Department of Transportation - *Innovative Intersections and Interchanges in NC*

Alex Borg, ARUP - *Alternative Intersections in Australia*

Gilbert Chlewicki, ATS / AMERICAN - *Improving Pedestrian Operations at Innovative Geometric Designs*

Jonathan Reid, Arcadis - *Update on the Quadrant Roadway Intersection*

10:30 AM - 12:00 PM

305 B

S13 Strategies for Improving Pedestrian and Bicycle Mobility

Ingrid Potts, MRIGlobal (Moderator)

Kay Fitzpatrick, Texas A&M Transportation Institute - *Will You Stop for Me? Roadway Design and Traffic Control Device Influences on Drivers Yielding to Pedestrians in a Crosswalk with a Rectangular Rapid-Flashing Beacon*

Alfredo Garcia, Universitat Politècnica de Valencia - *Frequency of Conflicts on Separated Cycle Tracks as a Function*

of Cross Section Characteristics

John Cock, Alta Planning + Design, Inc. - *Developing the Effective "Minimum Bikeway Grid"*

Todd B. Delk, Stewart - *Greenway Connectivity Through Innovative On-Road Design—Charlotte Uptown Urban Trails Study*

10:30 AM - 12:00 PM
306 A

S14 What is Happening?: Lightning Round

Marcus Brewer, Texas A&M Transportation Institute
(Moderator)

Shaun T. Bready, HDR - *3D Worlds - An Innovative Approach at Elevating Intersection Designs on a Budget*

Alex Wiseman, STV Engineers Inc. - *Feasibility Study of Protected-Permitted Phasing at Dual Left Turn Lanes*

Ahmed Buasali, University of Nebraska – Lincoln - *Assessing Robustness of Planning Level Tools for Predicting Roundabout Behavior*

Rachel James, Federal Highway Administration - *A Capacity Estimation Model for a Contraflow Left-Turn Lane at Signalized Intersections*

Wei Zhang, Federal Highway Administration - *Operational Evaluation of Virginia's First Mini-Roundabout*

Adam Lynch, HDR - *Using a "Slow Ride" Bicycle Group to Accelerate an Active Transportation Program*

Jason Reyes, Alta Planning + Design, Inc. - *A Primer on the Small Town and Rural Multimodal Networks (STAR) Guide*

Ryan Martinson, Stantec - *ITE Practitioner Guides on Transit and Protected Bikeway Design*

12:00 - 1:15 PM

Lunch

North Lobby

Small Group Discussions

Topics to be Selected during Symposium

**1:15 - 3:15 PM &
3:45 - 5:45 PM**
Rm 203

WT01 Does Your Road Need an Alternative Diet?

Mark Doctor, Federal Highway Administration

**1:15 - 3:15 PM &
3:45 - 5:45 PM**
Rm 201

WT02 Highway Capacity Manual – Alternative Intersections

Bastian Schroeder, Kittelson & Associates

**1:15 - 3:15 PM &
3:45 - 5:45 PM**

Rm 202

WT03 Have Access Management Questions? We Have Your Answers - Access Management Manual (AMM) 2nd Edition & Access Management Application Guide (AMAG)

Karen Dixon, Texas A&M Transportation Institute; **Kristine Williams**, CUTR

3:45 - 5:45 PM

Rm 305B

WT04 Speed Dating through Bicycle Project Design

Bryan Poole, City of Durham; **Daniel Amstutz**, City of Greensboro

**1:15 - 3:15 PM &
3:45 - 5:45 PM**

Rm 307

WT05 How the Chicken Crosses the Road: Utilizing the NCDOT Pedestrian Crossing Assessment

Sarah O'Brien, Institute for Transportation Research and Education, NC State

3:45 - 5:45 PM

Rm 306B

WT06 Every Day Counts for Safety: STEP into DDSA

Jeff Shaw, Federal Highway Administration

**1:15 - 3:15 PM &
3:45 - 5:45 PM**

Rm 306C

WT07 Experiences with North Carolina Alternative Intersections

Jim Dunlop, North Carolina Department of Transportation; **Joe Hummer**, North Carolina Department of Transportation

**1:15 - 3:15 PM &
3:45 - 5:45 PM**

Rm 306A

WT08 Urban Road Safety – Identifying and Implementing Safety Strategies for Pedestrian and Bicycle Crashes

Daniel Carter, Highway Safety Research Center, University of North Carolina; **Libby Thomas**, Highway Safety Research Center, University of North Carolina, and **Krista Nordback**, Highway Safety Research Center, University of North Carolina

**1:15 - 3:15 PM &
3:45 - 5:45 PM**

Rm 305A

WT09 Let's Build a Great Street Together - Complete Streets Interactive Session

Ryan Martinson, Stantec

1:15 - 3:15 PM

Rm 305B

WT10 Designs that Work for Older Adults and for People who Are Blind or who Have Low Vision

Janet Barlow, Accessible Design for the Blind; **Carole Lovitt**, North Carolina Division of Services for the Blind

**1:15 - 3:15 PM &
3:45 - 5:45 PM**

Walking Tour

Meet in the main lobby

WT11 Downtown Raleigh Complete Street Tour

Stacie Phillips, Kimley-Horn & Associates, Inc.; **Dhanya**

Sandeep or **Carter Pettibone**, City of Raleigh Urban

Design Center

**1:15 - 3:15 PM &
3:45 - 5:45 PM**

Bus Tour

Meet in the main lobby

WT12 Hillsborough Street Revitalization Tour

Todd Delk, Stewart; **Sharon Smith**, NC Department of

Health and Human Services

1:15 - 3:15 PM

Bus Tour

Meet in the main lobby

WT13 Holly Springs NC 55 Superstreet Tour

Betsy Watson, Stantec; **Mike Lindgren**, Stantec

1:15 - 3:15 PM

Bike Tour

Meet in the main lobby

WT14 Downtown Bike Tour

Trung Vo, City of Raleigh

**1:15 - 3:15 PM &
3:45 - 5:45 PM**

Ballroom C

WT15 Protected Intersection

Mike Repsch, Alta Planning + Design

6:00 - 8:30 PM

Social: North Carolina Pig Pickin'

Presentation: Wake Forest/Blount/Person Corridor Phase I Improvements

Mordecai Historic Park, 1 Mimosa Street, Raleigh 27604

Buses will depart from the east entrance of the Raleigh Convention Center (RCC) starting at 5:45 PM and continue circulating between the RCC and event location until 8:30 PM

8:30 - 10:00 AM

305 A

S15 Alternative Intersections - V

Justin Carroll, STV Engineers Inc. (Moderator)

Will Hume, HDR - *Skinny Streets, Big Appetite: Merging Innovation along US 192*

Steve Thieken, Burgess & Niple, Inc. - *Roundabout Lessons Learned*

Majed Al-Ghandour, North Carolina Department of Transportation & Florida Atlantic University - *Comparative Analysis between the Diverging Diamond Interchange and Partial Cloverleaf Interchange Using Micro-simulation Modeling*

Bastian Schroeder, Kittelson & Associates, Inc. - *Considerations and Best Practices for Accommodating Pedestrians and Cyclists at Alternative Intersections and Interchanges*

8:30 - 10:00 AM

305 B

S16 Reallocating the Cross Section

Larry Shannon, Michael Baker International (Moderator)

Mark Doctor, Federal Highway Administration - *Road Diet*

Guidelines for Assessing Candidate Locations

Michael H. Schrader, Wayne State University - *Quasi-*

Couplet: Preserving Mobility While Freeing Urban Street Space

Kenneth H. Voigt, Ayres Associates - *Tosa Village Plaza*

John Sangster, University of Nebraska – Lincoln - *Impact*

of Driveway Density on Operations with Road Diets

10:30 - 12:00 PM

Ballroom C

S17 Closing Session

Jeff Shaw, Federal Highway Administration; **RJ Porter**,

VHB (Moderators)

G. Wade Walker, Alta Planning + Design, Inc. - *Some*

Assembly Required: Lessons Learned in Complete Streets

Implementation

George Merritt, Federal Highway Administration - *Current*

Trends and Tomorrow's Challenges for Performance-based

Practical Design and the Urban Road Environment

Co-Chairs:

Kay Fitzpatrick representing Transportation Research Board

Christa Greene representing North Carolina Section of the Institute
of Transportation Engineers

Assisted by:

Marcus Brewer
David McDonald

Shannon Warchol

Abstract Reviewers:

Lauren Blackburn
Marcus Brewer
Gil Chlewicki
Mark Doctor
Eric Donnell
Paul Dorothy
Stacie Phillips
RJ Porter

Mike Reese
Larry Shannon
Jeff Shaw
Hermanus Steyn
Shannon Warchol
Jonathan Wood
Stephen Yeung

Program/Workshop Planners:

Lauren Blackburn
Marc Butorac
Gil Chlewicki
Tom Creasey
Todd Delk
Mark Doctor
James Dunlop
Matt Hayes
David McDonald

Stacie Phillips
RJ Porter
Mike Reese
Bastian Schroeder
Grant Schultz
Jeff Shaw
Trung Vo
Shannon Warchol

NCSITE Local Arrangements Committee:

Terry Arellano
Shreyas Bharadwaj
Todd Brooks
Justin Carroll
Todd Delk
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Lee Klieman
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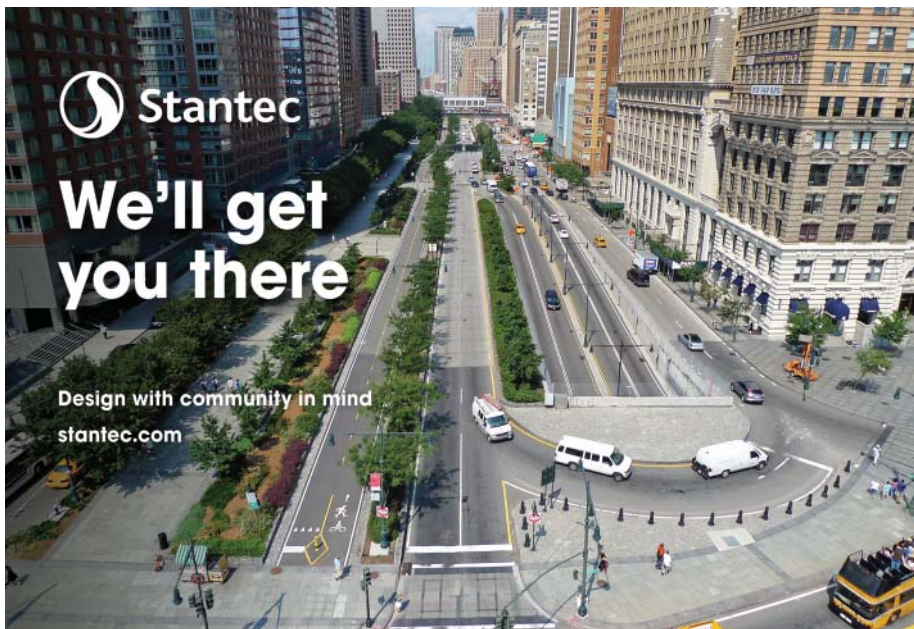


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