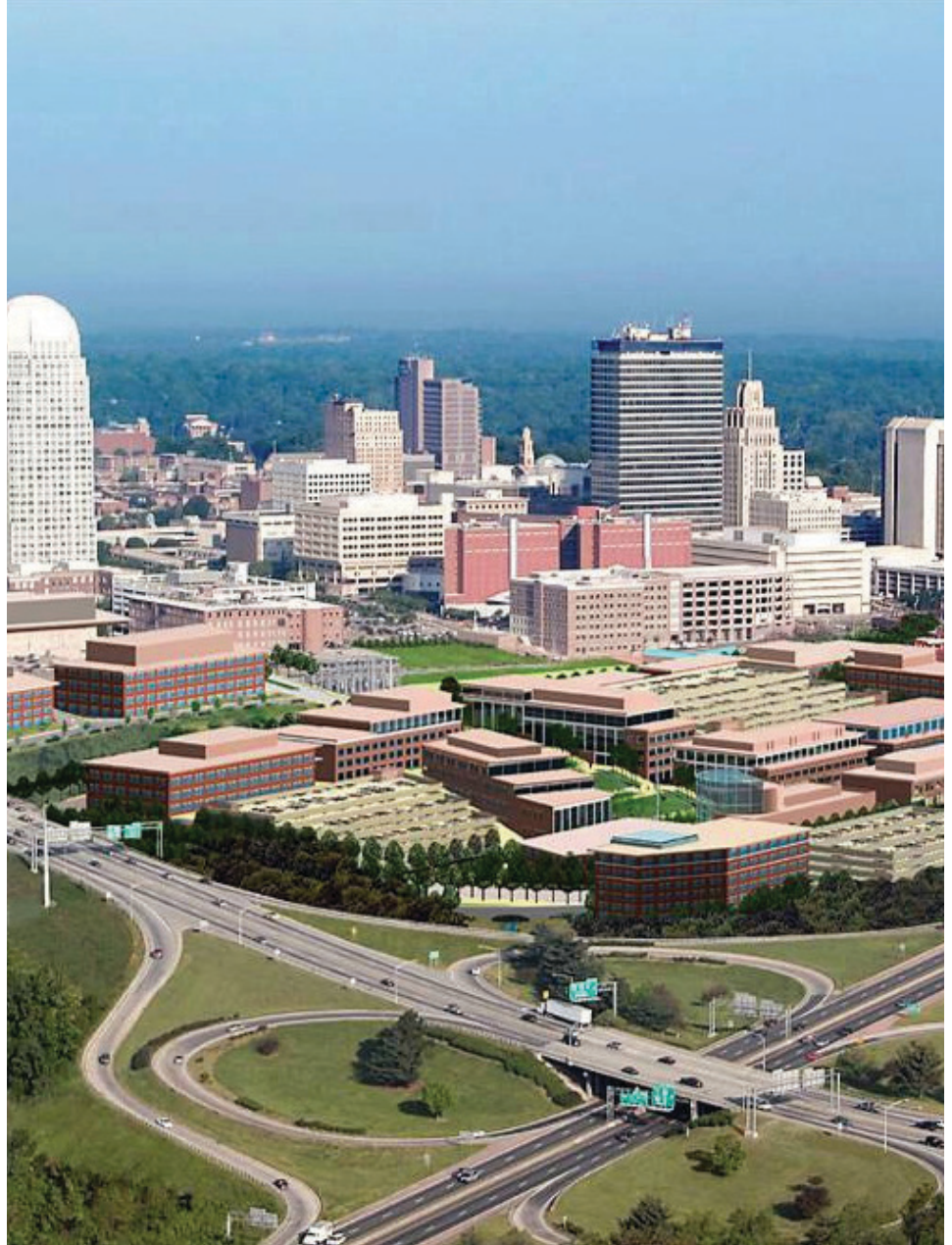


# Sustainable Transportation Infrastructure – Complete, Green And Funded

TRB Landscape and Environmental  
Design Committee

Winston-Salem | Sept. 7-10, 2014



TRANSPORTATION RESEARCH BOARD



## Greetings from the Office of the Mayor!



On behalf of the City of Winston-Salem, it is a privilege for me to welcome all attendees of the 2014 Transportation Research Board's Landscape and Environmental Design Committee's Mid-Year Meeting held at the Brookstown Inn in Winston-Salem. I understand your meeting theme is

“Sustainable Transportation Infrastructure – Complete, Green and Funded.”

The Transportation Research Board can be justly proud of its 75 years of focusing on design parameters that relate to protection, conservation, restoration and enhancement of transportation systems, facilities and their associated environments.

I do hope attendees and guests will be able to take some time from their busy itinerary to visit the “City of Arts & Innovation.” Most of you know that our community is culturally rich, has wonderful recreational and sporting activities, and also plenty of shopping and unique and fabulous restaurants. Do take a little time to look around to see the growth, development, and restoration of which we are so proud. Best wishes for a wonderful conference and continued success in your organization.

Most sincerely,

Allen Joines  
Mayor

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The 2014 TRB Landscape and Environmental Design Committee Mid-Year Meeting and Conference is made possible by the generous support of the American Society of Landscape Architects

~ Green Since 1899 ~



# Conference Schedule

## BROOKSTOWN INN MEETING ROOM

### Sunday, September 7

3:00 – 5:00 p.m. **Registration**

5:00 – 7:00 p.m. **Reception in the Brookstown Inn Courtyard**

### Monday, September 8

7:30 a.m. – Noon **Registration**

7:00 – 8:00 a.m. **Continental Breakfast Buffet**

8:00 – 8:15 a.m. **Welcome**

Winston-Salem Mayor Allen Joines – Welcome  
Scott Bradley, FASLA, TRB Committee Chair  
– TRB Committee Welcome

8:15 – 9:30 a.m. Green Infrastructure In New York City  
Aurora Davis, NYC Parks, Green Infrastructure  
Program Unit

9:30 – 10:15 a.m. North Carolina Complete Streets Guidelines  
Glenn Mumford, PE, NCDOT  
Implementing Complete Streets  
– The Charlotte Experience  
Ben Miller, AICP, Charlotte Dept. of Transportation

10:15 – 10:30 a.m. **Break**

10:30 a.m. – Noon NACTO Urban Bikeway Design Guide and WalkBikeNC  
John Cock, Alta Planning

Safety for all Road Users  
Dan Gelinne, UNC Highway Safety Research Center

Bike and Pedestrian Safety – Environmental Justice  
Issues in North Carolina  
Don Kostelec, AICP, Kostelec Planning

12:15 – 1:15 p.m. Lunch Program - CSS National Dialog: Visions of  
Context Sensitive Solutions  
James Martin, M.C.E., PE, Center for Transportation  
and the Environment

1:30 – 2:15 p.m. Texas Highway Design Guidelines – A Decade of  
Progress in CSS  
Ethan Beeson, ASLA, Texas DOT

Roadside Development of Aesthetics in North Carolina  
Jeff Lackey & Robert Kopetsky, RLA, NCDOT

2:15 – 3:30 p.m. Business 40 Rehabilitation Project – Public  
Involvement and Implementation of Project  
Enhancements in the Design/Build Project  
Pat Ivey, PE, Mike Penney, PE, and Drew Joyner, PE,  
NCDOT - Toneq McCullough, PE, Winston Salem  
Department of Transportation (WSDOT)  
- Christy Turner, Stimmel Associates,

3:30 – 3:45 p.m. **Break**

3:45 – 5:30 p.m. Wake Forest Innovation Quarter - A Complete  
Streets Project Walking Tour  
Will Partin, BioMed Realty Inc.,  
Christy Turner, Stimmel Associates,  
Matthew Burczyk, WSDOT

6:30 – 9:00 p.m. **AFB40 Committee Meeting**

## US 321 AND BLUE RIDGE PARKWAY MOBILE WORKSHOP

### Tuesday, September 9

7:00 – 8:00 a.m. **Continental Breakfast Buffet**

8:00 – 8:30 a.m. **Tour Introduction and Logistics**

Blue Ridge Parkway Historic Stone Guardwall  
Rehabilitation Project  
Mark Hough, ASLA, Duke University Campus

8:30 – 10:30 a.m. **Board Bus and Depart**

10:30 a.m. – 5 p.m. **Blowing Rock and Blue Ridge Parkway Tour**

Blowing Rock US 321 CSS Project  
Jeff Lackey and Doug Eller, NCDOT

**Box Lunch on the Parkway**

Blue Ridge Parkway – Scenic Highway turns 78  
– Beauty and Challenges  
David Anderson, National Park Service and  
Leah Mathews, UNC Asheville

6:30 – 8:30 p.m. **Group Dinner – The Tavern in Old Salem**

## CHILDREN'S MUSEUM OF WINSTON-SALEM

### Wednesday, September 10

8:30 a.m. **Continental Breakfast Buffet at the Museum**

8:30 – 10:00 a.m. AFB 40 Landscape and Environmental Design  
Research Needs  
Keith Robinson, ASLA, Caltrans

10:00 – 11:00 a.m. A New Funding Paradigm - Strategic  
Transportation Investments  
David Wasserman, PE, NCDOT

11:00 – 11:45 a.m. 50 Years of Civil Rights and 20 Years of  
Environmental Justice – What is our Future  
Keith Moore, FHWA

11:45 p.m. – Noon **Acknowledgements and Adjourn**

## Mobile Workshops

### Wake Forest Innovation Quarter Tour

Monday, September 8 3:45 – 5:30 p.m.

We will visit and explore the Wake Forest Innovation Quarter, a high growth research park focused on innovation, sustainable development and transportation options that is an “agent of change” in downtown Winston-Salem. The urban-based, mixed-use, biotechnology and related technology research park is advancing research programs by increasing awareness and accelerating commercial applications while providing economic recovery for the community, the Northwest Piedmont region, and the entire state of North Carolina.

The development of the Wake Forest Innovation Quarter has prompted several transportation and urban design projects and the tour will highlight these efforts.

1. The Salem Creek Connector, which will deliver people to the front steps of the Innovation Quarter.
2. Research Park Boulevard, which will serve as the spine for the Innovation Quarter
3. The Wake Forest Innovation Quarter Rail-Trail, which will provide a safe and inviting bicycle and pedestrian transportation corridor through the park.
4. Bailey Park, a 1.6-acre space that will add to the creative work and play spaces that are part of the essence of the Wake Forest Innovation Quarter.
5. Numerous streetscape improvements emphasizing pedestrian-scale environments.

Participants will first meet with Will Partin, Project Manager, for an introduction to the Wake Forest Innovation Quarter. Mr. Partin will detail the history of Biotech Place and Wake Forest Innovation Quarter’s relation to Reynolds American, recent business developments, and future development.

Next, Christy Turner, LEED AP, Project Manager with Stimmel Associates, and Matthew Burczyk, City of Winston-Salem Bicycle & Pedestrian Coordinator, will lead guests on a walk outside of Biotech Place to discuss streetscape designs and the multimodal transportation connectivity to Wake Forest Innovation Quarter.

[www.wakeforestinnovationquarter.com](http://www.wakeforestinnovationquarter.com)



### US 321 Context Sensitive Solutions (CSS) Project and Blue Ridge Parkway Tour

Tuesday, September 9 8:00 a.m. - 6:30 p.m.

This full day field session will begin with Mark Hough, ASLA, Campus Landscape Architect for Duke University providing an introduction to the cultural landscapes and origins of the Blue Ridge Parkway as a linear park weaving through the settlements and mountainsides of western North Carolina. Mark will introduce us to historic road maintenance challenges and present the recent stone guardwall rehabilitation project.

We will board the 30 passenger bus and travel to Blowing Rock via US 421 with Jeff Lackey, Aesthetics Engineer with NCDOT Roadside Environmental Unit, giving an en-route introduction to the US 321 corridor widening project through Blowing Rock, a resort community adjacent to the Blue Ridge Parkway, and the history which includes extensive NEPA documentation, alternatives analysis, and CSS work. First, we will drive through downtown Blowing Rock to see Main Street and the town’s roadside features and then we will stop at the Tanger Outlet Parking lot to meet Doug Eller, NCDOT District

Engineer with Division 11 for an on-site tour and discussion of ongoing construction challenges and planned future enhancements. We will travel the length of the US 321 widening with stops along the way to see first hand the specialized form liner retaining walls and hand laid stone walls at the historic Green Park Inn and to hear how NCDOT has worked closely with the Blowing Rock community to make this once contentious project a model for CSS in North Carolina.

We will be joined in Blowing Rock by David Anderson, Resident Landscape Architect, for the National Park Service and Leah Mathews, Professor of Economics, UNC Asheville to begin the 3 hour Blue Ridge Parkway tour. Our first stop will be at the Julian Price Park to enjoy a picnic lunch. The tour of the Parkway with David and Leah will begin with an introduction to the Blue Ridge Parkway’s history and its importance as a cultural landscape. As we drive the Parkway, we will stop at overlooks to discuss specific examples of challenges facing the parkway including visual impacts of adjacent land use, the deterioration of air quality and pollution, and ongoing maintenance of historic structures as well as successes such as the Blue Ridge Parkway Foundation and their efforts to provide needed funding and to promote programs such as the “Agree to 3 – A Neighbor’s Guide”. Longer stops at Linville Falls and the Linn Cove Viaduct will include restroom breaks and easy walks around the Visitor’s Center. There will also be opportunities to take short hikes to the falls and under the Viaduct to discuss the construction of this final dramatic section of the parkway opened to traffic in 1987. We will be sure to take a group photo before boarding the bus for the drive back to Winston-Salem.



## Speakers

**David Anderson, RLA**, is the National Park Service Landscape Architect for Blue Ridge Parkway where he oversees viewshed protection, GIS modeling, cartography, scenic easement and boundary enforcement, and the management of the parks visual aesthetics for the All American Road.



**Ethan Beeson, ASLA**, the Landscape Architect and ISA Certified Arborist for the Texas DOT's Houston District, implements landscape and aesthetic masterplan guidelines, provides support for aesthetic and landscape development and researches sustainable roadside programs. He is responsible for planting over 1,500,000 trees on Texas public right-of-way.



**Matthew Burczyk, AICP**, the WSDOT Bicycle & Pedestrian Coordinator, is building a strong cycling and walking environment with infrastructure improvements, education and programming. Matthew is a certified Cycling Instructor, co-founder of the Community Bike Ride, advocate for active transportation with local cyclists, and rides his bike to work.



**John Cock**, Principal at Alta Planning + Design, has twenty years' experience working on urban trail, bicycle, pedestrian, and complete streets with national and local agencies, non-profit organizations, and cities across the Southeast. John's expertise includes land use and transportation integration, transit station and bike share planning. He is a daily bike commuter in Davidson, NC.



**Aurora Davis**, NYC Parks Green Infrastructure Project Manager, performs conceptual and final designs and construction management for stormwater projects, specifically 'bioswales' and stormwater 'greenstreets'. Ms. Davis coordinates with other City agencies on the development and continuation of the city-wide green infrastructure program.

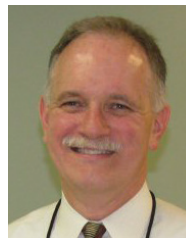
**Doug Eller**, District Engineer with Division 11, NCDOT.



**Dan Geline** manages the Pedestrian and Bicycle Information Center at the Highway Safety Research Center and oversees numerous road safety research projects and programs focusing on pedestrian and bicycle safety and planning, web management, and technical support services. Dan runs the Road Safety Academy providing training opportunities for professionals in the transportation field.



**Mark H. Hough, ASLA**, Duke University campus landscape architect, oversees design, master planning, sustainability, natural resource management and historic preservation on the Olmsted designed campus. Mark frequently lectures and writes on campus design, environmental sustainability and the evolution of cultural landscapes.



**Pat Ivey, PE**, NCDOT Division 9 Engineer, has supervised the planning, design and administration of several high-profile projects including the widening of I-85, Yadkin River Veterans' Memorial Bridge, US 52 Improvements, Salem Creek Connector, and he is currently overseeing the development of the Business 40 Improvement project.

**Drew Joyner, PE**, NCDOT Human Environment Unit Head, manages public involvement, community impact assessments, archaeological, historic architecture, traffic noise and air quality studies. Drew has over eighteen years' experience on transportation project development studies that provide needed improvements, while minimizing impacts to the human and natural environment.

**Robert Kopetsky, RLA**, Landscape Architect with the NCDOT Roadside Environment Unit.

**Don Kostelec, AICP**, Principal with Kostelec Planning in Asheville, researches Health Impact Assessments and transportation considerations throughout the US. Don has worked in the public and private sector managing municipal, comprehensive, and active transportation plans for more than 13 years in the Southeast, Pacific Northwest and overseas.



**Jeff Lackey**, Aesthetic Engineering Manager, NCDOT Roadside Environment Unit, has over 22 years of experience in project design and program administration and is responsible for Roadside Planning, Visualization, NC Scenic Byways, Rest Area/Welcome Center Site Development, Historic Mitigation, Sustainable Landscapes, Context Sensitive Design, and Aesthetic Engineering Policies.

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## Speakers



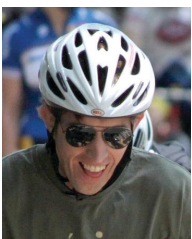
**James Martin, MCE, PE**, Associate Director of ITRE, CTE, and Director the Local Technical Assistance Program, has served as principal investigator on over 200 research and training projects. Mr. Martin was the principal investigator presenting Context Sensitive Solutions Training to over 1,800 NCDOT employees and currently directs activities on the CSS National Dialog for FHWA.



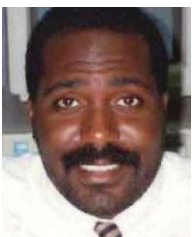
**Dr. Leah Greden Mathews**, UNC Asheville Distinguished Professor of the Mountain South and Professor of Economics, researches the valuation of water and scenic quality and cultural heritage and estimated the value of scenic quality on the Blue Ridge Parkway. Dr. Mathews' recent research looks at why people value intangibles and how social, cultural and natural forces relate and influence these values.



**Toneq' McCullough, PE**, the Winston Salem Director of Transportation, oversees management of Traffic Operations, Streets, Parking and Safety, Transportation Planning and City Transit Operations. Toneq' has worked with the City for over 15 years in Engineering Design, Utilities and Construction and the Department of Transportation.



**Benjamin Miller, AICP**, Charlotte DOT Transportation Planner, develops transportation-related city policy and provides support for capital programs and projects. Mr. Miller coordinates on the development and implementation of area plans and works to enhance the driving, bicycling and walking experience by providing transportation choices for residents and visitors.



**Keith Moore**, a Winston-Salem native and AFB40 Committee Member, is a 14 year veteran of the Federal Highway Administration. Keith provides specialized training and technical assistance in Planning and Environment, project development review and Environmental Justice. Keith's additional transportation experience includes over 15 years at various agencies throughout the U.S. and as adjunct professor.

**Glenn Mumford, PE**, State Roadway Design Engineer for NCDOT.



**Will Partin**, Associate Director at BioMed Realty, is the liaison between owners, design consultants, and contractors on over 800,000 s.f. of available mixed-use commercial development totaling \$300 million. Will works with medical center administration to re-brand the Wake Forest Innovation Quarter's 145-acre urban life science and technology research park in Winston-Salem.

**Michael Penney, PE, CPM**, has over 30 years' experience in roadway design engineering, regional planning and travel models, and as a Project Development Engineer with NCDOT. Michael has managed over fifty projects, including a 30 mile section to the Fayetteville Outer Loop, US 52 Interim Improvements and the Business 40 Improvement project in Winston-Salem.



**Keith Robinson, ASLA**, a California licensed Landscape Architect, AFB40 Committee member, and Principal Landscape Architect with Caltrans, is responsible for the development and implementation of the Statewide Roadside Design and Sustainability Program; Context Sensitive Solutions implementation; research; erosion and storm water management; roadside worker safety, and Main Streets design guidance.



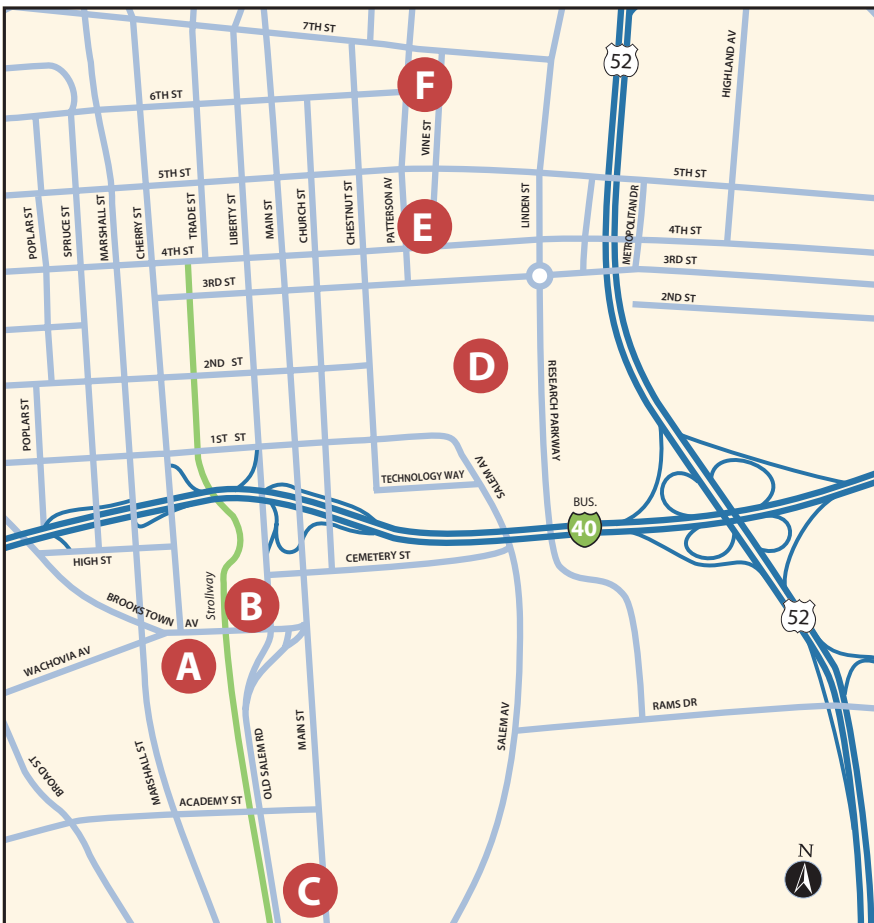
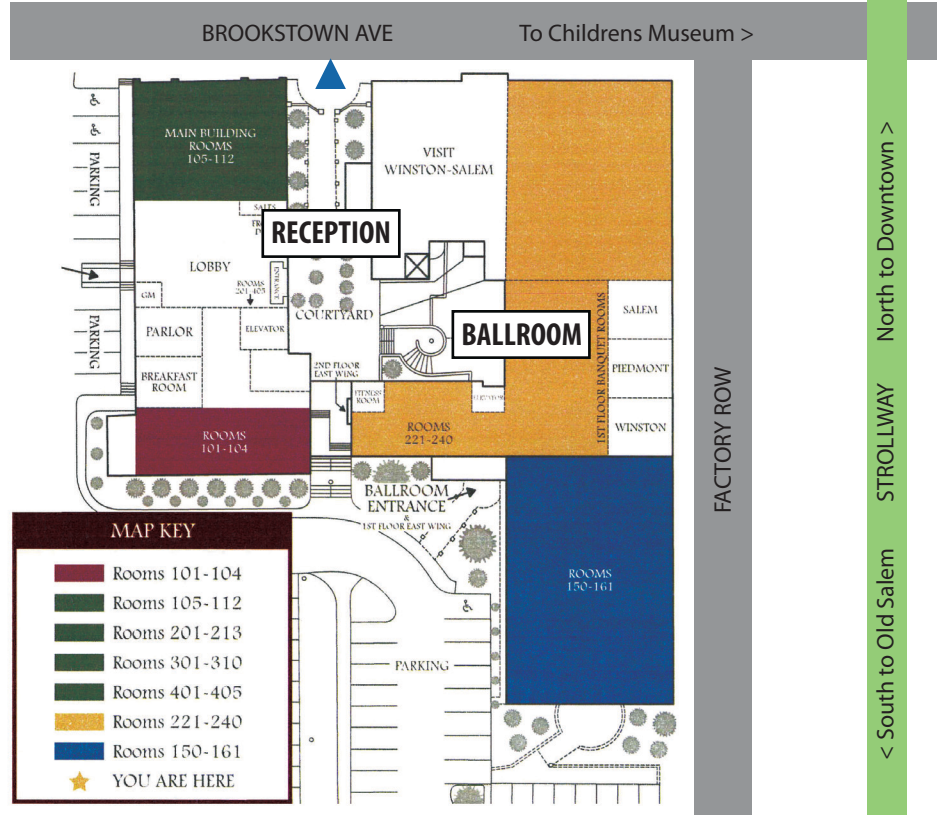
**Christy Turner, LEED AP BD+C**, a partner at Stimmel Associates, PA, has 15 years' experience in large scale master planning, urban planning, streetscape and amenities design. Christy has been involved in the Salem Creek Connector Design/Build streetscape project, the Wake Forest Innovation Quarter Rail-Trail project as well as developing design guidelines for the Quarter.



**David S. Wasserman, PE**, Senior Transportation Engineer in the Strategic Prioritization Office (SPOT), has over 17 years' experience working across the transportation planning spectrum at NCDOT. He joined the transformation team developing a future prioritization process and is implementing the prioritization process and Strategic Transportation Investments legislation.

# Brookstown Inn

▲ Buses will load along Brookstown Avenue between the hotel and the Visitors Center.



# Downtown Winston-Salem Area

- A. Brookstown Inn, 200 Brookstown Ave.
- B. Children's Museum, 390 S. Liberty St.
- C. The Tavern in Old Salem, 600 S. Main St.
- D. Wake Forest Innovation Quarter, tour information on page 2
- E. Bailey Park, 4th St. and Patterson Ave.
- F. Biotech Place, 575 N. Patterson Ave.



2014 TRANSPORTATION RESEARCH BOARD  
LANDSCAPE AND ENVIRONMENTAL DESIGN COMMITTEE  
Mid-Year Meeting in Winston-Salem, North Carolina

# thanks to our sponsors



# Welcome!

The City of Winston-Salem is proud to host the 2014 conference of the  
Transportation Research Board Landscape and Environmental Design Committee



View of downtown  
Winston-Salem from the  
School of Filmmaking  
Studio Village at the  
University of North Carolina  
School of the Arts.