Context Sensitive Design Symposium

Designing Travelways for People and Places

May 10, 11 & 12, 2004
Atlanta, Georgia

Sponsored by:

ULI Atlanta

Georgia Department of Transportation

MARTA

Georgia Municipal Association

ACCC
Context Sensitive Design Symposium

Designing Travelways for People and Places

May 10, 11 & 12, 2004
Atlanta, Georgia

Sponsored by:
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## CSD Symposium Agenda

### Monday, May 10

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<th>Event</th>
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<tr>
<td>5:30-7:00 p.m.</td>
<td>Reception at the Center for Quality Growth and Regional Development, 760 Spring Street</td>
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### Tuesday, May 11

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>7:30-8:30 a.m.</td>
<td>Registration and Continental Breakfast</td>
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<tr>
<td>8:30-9:30 a.m.</td>
<td>Introductions – Catherine L Ross, Director, CQGRD</td>
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<td></td>
<td>Welcome - Bob Callan, FHWA Division Administration</td>
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<td></td>
<td>Plenary speaker - Gary Toth, New Jersey DOT Director of Project Planning and Development</td>
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<tr>
<td>9:30-10:30 a.m.</td>
<td>Case studies - William S. Gulick, Kentucky DOT Assistant State Highway Engineer, and Carl Bard, Connecticut DOT Engineering Administrator</td>
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<tr>
<td>10:30-10:45 a.m.</td>
<td>Break</td>
</tr>
<tr>
<td>10:45-12:15 p.m.</td>
<td>Case studies – Joe Palladi, Georgia DOT, State Planning and Program Administrator, and Dennis German, Maryland DOT Division Chief</td>
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<tr>
<td>12:15-2:15 p.m.</td>
<td>Field trip and box lunch</td>
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<tr>
<td>2:15-3:15 p.m.</td>
<td>Public involvement in CSD - Sally Oldham, Oldham Historic Properties</td>
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<tr>
<td>3:15-5:00 p.m.</td>
<td>Breakout groups to begin discussion of project design</td>
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<tr>
<td>5:30-7:00 p.m.</td>
<td>Reception</td>
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<tr>
<td>Time</td>
<td>Event</td>
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<tr>
<td>7:30-8:30 a.m.</td>
<td>Continental Breakfast</td>
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<tr>
<td>Auditorium 222</td>
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<tr>
<td>8:30-9:15 a.m.</td>
<td>Legal issues in CSD - Julia Perry, Federal Highway Administration Legal Counsel</td>
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<tr>
<td>Auditorium 222</td>
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<tr>
<td>9:15-10:15 a.m.</td>
<td>Frontiers of CSD – Georgia Tech faculty Michael A. Dobbins, Michael D. Meyer, Catherine L. Ross</td>
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<tr>
<td>Auditorium 222</td>
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<tr>
<td>10:15-10:30 a.m.</td>
<td>Break</td>
</tr>
<tr>
<td>10:30-11:40 a.m.</td>
<td>Breakout groups to continue discussion of project design</td>
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<tr>
<td>Auditorium 222</td>
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<tr>
<td>11:40-12:45 p.m.</td>
<td>Introduction – Catherine L Ross, Director, CQGRD</td>
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<td>Auditorium 222</td>
<td>Lunch and welcome by College of Architecture Dean Thomas D. Galloway</td>
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<td>Keynote Address - Harold Linnenkohl, Georgia DOT Commissioner</td>
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<td>12:45-1:30 p.m.</td>
<td>Maintenance issues in CSD - Fred Crozier, Maryland State Highway Administration District Engineer</td>
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<td>Auditorium 222</td>
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<td>1:30-2:15 p.m.</td>
<td>CSD, project development and community expectations - Tim Jackson, PE, AICP, Glatting Jackson Kercher Anglin Lopez Rinehart</td>
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<td>2:15-2:25 p.m.</td>
<td>Break</td>
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<tr>
<td>2:25-4:15 p.m.</td>
<td>Presentation of final design by breakout groups</td>
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<td>Auditorium 222</td>
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<td>4:15-4:30 p.m.</td>
<td>Closing comments - Georgia DOT Commissioner Harold Linnenkohl</td>
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<td>Auditorium 222</td>
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CSD Symposium Evaluation

Please complete this evaluation form. Your comments and suggestions will be used to improve future events. Thank you for your time.

I am associated with a (check one):

☐ state or regional agency  ☐ county or city government  ☐ academic institution
☐ private consulting/engineering firm  ☐ other ___________________________

I am employed as a (check all that apply):

☐ engineer  ☐ architect  ☐ landscape architect
☐ urban designer  ☐ planner  ☐ academic
☐ other ___________________________

Overall quality of the CSD Symposium was:

☐ excellent  ☐ good  ☐ average  ☐ poor

The CSD Symposium increased my understanding of CSD principles:

☐ a great deal  ☐ some  ☐ not much  ☐ not at all

The presenters provided useful information about CSD:

☐ a great deal  ☐ some  ☐ not much  ☐ not at all

The Northside Drive Case Study:

☐ helped me understand and apply CSD principles  ☐ was not helpful

What was the best part of the CSD Symposium? Why? ____________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

What do you suggest we do differently at the next conference? _________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
What post-symposium activities do you recommend?

The CSD Symposium helped me find new contacts and opportunities for future collaboration:
☑ a great deal ☐ some ☐ not much ☐ not at all

How did you hear about the symposium?
☑ brochure ☐ e-mail ☐ CQGRD Web site ☐ colleague
☑ other ____________________

Pre-conference information was:
☑ excellent ☐ good ☐ average ☐ poor

Facilities and meeting rooms were:
☑ excellent ☐ good ☐ average ☐ poor

Meals were:
☑ excellent ☐ good ☐ average ☐ poor

What is the appropriate number of days for this type of conference?
☑ 1 day ☐ 1 ½ days ☐ 2 days ☐ 3 days

What is the best time of year for a conference?
☑ winter ☐ spring ☐ summer ☐ fall

This evaluation will be collected during the Symposium closing session on Wednesday.
Thank you!

CSD Symposium

May 10-12, 2004
**Carl Bard, P.E., Connecticut DOT Manager of Consultant Design**
Carl F. Bard has worked for the Connecticut Department of Transportation since 1974 in different capacities.

As of December 2003, he was appointed Engineering Administrator which is comprised of an office of over 300 people that are responsible for providing engineering services for the Bureau of Engineering and Highway Operations and as required, for other bureaus of the CT-DOT.

Beginning in August of 2001 he was appointed as the Manager of Consultant Design Division which is responsible for highway and bridge projects designed by consulting firms and held this position until December of 2003.

From September 1995 to August 2001, Mr. Bard was the Principal Engineer of the State Highway Design Unit. In this capacity, he managed an office of 65 employees who are the responsible lead of various transportation design projects (primarily highways).

Earlier, Mr. Bard worked as a Transportation Principal Engineer in the Project Concept Unit for two years. He was responsible for scoping, estimating and initiating projects for various federal highway programs. He has also developed and performed the administrative process as it related to ISTEA and Departmental regulations.

Mr. Bard has also served as Executive Assistant to the Deputy Commissioner of the Connecticut Department of Transportation. In this capacity, he has acted on the Deputy Commissioner’s behalf on sensitive projects and developments. He also interacted daily with federal, state and local agencies regarding Department projects and responded to various concerns of public and civic organizations relative to Department activities. In addition, he was responsible as Department Designee to the Governor’s Major Project Group and Deputy Commissioner’s representative for the Department’s Merritt Parkway Working Group.

Mr. Bard has also worked as transportation engineer, project engineer and project manager for the Connecticut Department of Transportation for 16 years prior to his appointment as Executive Assistant to the Deputy Commissioner.

Mr. Bard has been involved in community services by being a member and a chair in various organizations. He had received his Bachelor of Science degree in Civil Engineering from the University of Connecticut. He is also a certified Professional Engineer in the State of Connecticut.

**Bob Callan, P.E., FHWA Division Administration**
On March 24, 2002, Bob Callan became the Division Administrator in Atlanta, Georgia. He directs a multi-disciplinary staff, which administers front line Federal-aid Program delivery assistance to partners and customers throughout Georgia. This assistance consists of highway transportation and safety services, including but not limited to, planning and research, preliminary engineering, technology transfer, right-of-way, bridge, highway safety, traffic operations, environment, civil rights, design, construction and maintenance, engineering coordination, highway beautification, and administration.

Before his appointment as Division Administrator, Mr. Callan served as the Resource Center Manager – East. In this capacity, he lead a multi-disciplinary staff of 42 technical specialists and support personnel who provide technical and program assistance to Division Offices, State DOTs, Metropolitan Planning Organizations, and other partners. These specialists are also responsible for advancing state-of-the-art practice of surface transportation technology. Bob Callan provided supervision and guidance to the Center’s subordinate supervisors and teams of specialists in the areas of Infrastructure, Planning and Environment, Safety and Operations, Civil Rights, Corporate Management, and Information Management.
and Support. Prior to this appointment, he held the title of Assistant Division Administrator, Florida Division from January 1990.

He joined the Federal Highway Administration’s Highway Engineering Training Program in 1969. Upon graduation from the Training Program, he was assigned to the North Carolina Division Office where he held the positions of Assistant Area Engineer, Area Engineer, and later became the Division’s first full-time Environmental Coordinator.

In 1978, he was promoted to the position of Highway Engineer in the former Office of Environmental Policy (Environmental Review Branch) in the Washington Office. In this position, he coordinated the Headquarters review of Environmental Impacts Statements (EISs) for several FHWA regions, taught several NHI-sponsored courses, and drafted policy and technical guidance for the field offices. In 1984, he moved to the then Office of Engineering’s Geometric Design Branch where he was responsible for the review of proposed changes in access to the Interstate System and proposed exceptions to the design standards for Interstate highways. This included briefing the Federal Highway Administrator and recommending appropriate action. He also provided technical guidance to the field in the area of safety enhancement on 3R-type projects, drafted policy and technical guidance on design matters, and reviewed complex highway/interchange designs upon request.

In July 1987, he was promoted to a District Engineer position in the New York Division Office where he was responsible for overseeing and monitoring the Federal-aid program in the New York City/Long Island area. He supervised a staff of 3-4 Area Engineers who were responsible for monitoring the design and reconstruction of the East River bridges including the Brooklyn Bridge, the environmental studies on the very controversial Westway Project, and working with the NYSDOT and NYCDOT in developing eligible Federal-aid projects for the $1.6 billion Interstate Transfer Program. At the time over half of the Federal-aid went to the New York City/Long Island metropolitan areas.

Bob Callan graduated from the University of Massachusetts - Dartmouth and has completed graduate work in Public Administration at Virginia Tech and the University of Southern California. He is a registered Professional Engineer in the State of North Carolina.

He has received numerous performance and honor awards including the Administrator’s Award for Superior Service in 1991, the Administrator’s Strive for Excellence Award (team award) in 2001, the Secretary’s “Thanks a Million” award in 2001, and was a DOT Fellow in 1992-93. He has, and continues to, serve on a number of the agency’s national task forces and work groups including Workforce Development Champions, Stewardship/Oversight, Organizational Excellence, Performance Measurement, Continuous Process Improvement, Corporate Management Strategies, Learning and Development System, and Priority Technology Program (task group chair).

Fred Crozier, Maryland State Highway Administration District Engineer
Fred joined the Maryland State Highway Administration in 1984 as a construction project manager on the Capital Beltway in the Washington metropolitan area. In 1987, he transferred to western Maryland where he held several management positions in construction and maintenance. He was appointed as District Engineer for western Maryland in 1997. Prior to his career in Maryland, Fred worked for the West Virginia Division of Highways. Fred attended the University of North Carolina and received his civil engineering degree from West Virginia University. He is a registered professional engineer in Maryland and West Virginia.

Michael A. Dobbins, FAIA, AICP, Georgia Tech
Presently, Michael Dobbins is a part-time professor of practice in the architecture and the city and regional planning programs, as well as supporting the Center for Quality Growth and Regional Development, at the College of Architecture at Georgia Tech.
From June 1996 until April 2002, Dobbins was Commissioner of the Department of Planning, Development and Neighborhood Conservation for the City of Atlanta. He continues to provide advisory services to the City of Atlanta, for transportation and land use issues.

He received Bachelor and Master of Architecture Degrees from Yale. Dobbins is a Licensed Architect in Georgia and California; Fellow of the American Institute of Architects; member of the American Institute of Certified Planners, the American Planning Association, the Urban Land Institute, the Congress of New Urbanism and the National Council of Architectural Registration Boards.

Other experience includes planning director positions at UC Berkeley, Birmingham, Alabama, New York City Planning Department (Staten Island), New Orleans Comprehensive River Area Study and teaching at UC Berkeley, Birmingham Southern College, Tulane School of Architecture and Columbia University. Participant in planning and design forums and technical assignments across the country and in Europe and China; supporter of a range of community and neighborhood based activities; and recipient of a variety of honors and awards.

Dennis German, Maryland DOT Division Chief

William S. Gulick, P.E., L.S., Kentucky DOT Assistant State Highway Engineer
William S. Gulick, P.E. L.S., attended the University of Kentucky. Since 1967, he has worked as a consultant; worked as a Transportation departmental staff person, headed the Computer Aided Drafting and Design development in the highway design area. For ten years he served as the Transportation Engineer Branch Manager for the Developmental Branch which includes the CADD Section; Standard Drawings; and Field Survey Coordination.

He is currently an Assistant State Highway Engineer for the Transportation Cabinet. Mr. Gulick was the project manager for the Paris Pike project, which has become a showcase for Context Sensitive Design. He has worked with the University of Kentucky in developing a training course on Context Sensitive Design, which is now required training for all project engineers in Kentucky. Mr. Gulick has worked with the University of Kentucky to present this training to several other state DOTs and has become one of the country’s recognized leaders in this area.

Mr. Gulick is currently the project manager for the $2.4 billion dollar Louisville Southern Indiana Ohio River Bridges Project.

Tim Jackson, P.E., AICP, Glatting Jackson Kercher Anglin Lopez Rinehart, Inc.
Tim Jackson is president of Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., a community planning consulting firm with offices in Orlando, Atlanta, and West Palm Beach. With a staff of 110, Glatting Jackson provides services to public and private clients throughout the nation in areas of planning, urban design, landscape architecture, transportation, and environmental science. Tim also currently serves as president of 1000 Friends of Florida, a private not-for-profit group that has been advocating smart growth throughout the State since 1986. Jackson was born and raised in Brandon, Florida, and holds a Bachelor of Civil Engineering and a Master of City Planning from the Georgia Institute of Technology, and a Master of Urban and Regional Planning from Florida State. He and his wife, Carol, live in Longwood, Florida with their three sons.

Harold Linnenkohl, Georgia DOT Commissioner
Commissioner Harold E. Linnenkohl graduated in 1968 with a degree in Civil Engineering Technology from Southern Technical Institute in Marietta, Georgia. He immediately began his career with the Georgia Department of Transportation as a Civil Engineering Technologist, supervising asphalt construction in the
metro Atlanta and north Georgia area. His time with the Department was interrupted to serve in the U.S. Army for two years, which included a tour in the Republic of Vietnam. After being honorably discharged he returned to the DOT. In 1983, Mr. Linnenkohl was promoted to Assistant State Bituminous Construction Engineer, having more direct supervisory responsibility for asphalt construction and design statewide. In 1985, he was promoted to State Aid Engineer where he worked with local governments on their transportation needs. Then, in 1993, he was promoted to State Aid Administrator, overseeing all activities of local government contracts. In 1995, he assumed the additional responsibilities of Executive Assistant to the Department's former Commissioner, Wayne Shackelford. Mr. Linnenkohl was named Deputy Commissioner of the Georgia Department of Transportation in May 2000. Among his responsibilities was guiding the Department's deliberations with State of Georgia elected officials.

The State Transportation Board selected Mr. Linnenkohl as the Georgia Department of Transportation Commissioner in September, 2003. Mr. Linnenkohl directs a department of some 5,800 employees and manages a budget of more than $2 billion as the DOT is the primary agency responsible for "safe and sustainable" transportation infrastructure in Georgia.

Mr. Linnenkohl is the recipient of the James F. Condron Award, presented in November, 1994, by the Federal Highway Administration for his leadership in the recovery from damage to roads and bridges caused by heavy rains and flooding in Georgia earlier that year.

Among Mr. Linnenkohl's goals is building and operating a safe and efficient transportation system while meeting the growing needs of an ever changing state. He is also interested in increasing the upward mobility of the employees of the Department, keeping it as one of the top recognized department's of transportation in the country. Mr. Linnenkohl and his wife Linda live in Hiram, where they raise alpacas. The couple has two children and two grandchildren.

Michael D. Meyer, Professor, Georgia Tech

Dr. Michael D. Meyer is a Professor of Civil and Environmental Engineering, and former Chair of the School of Civil and Environmental Engineering at the Georgia Institute of Technology. From 1983 to 1988, Dr. Meyer was Director of Transportation Planning and Development for Massachusetts where he was responsible for statewide planning, project development, traffic engineering, and transportation research. Prior to this, he was a professor in the Department of Civil Engineering at M.I.T. Dr. Meyer has been involved with transportation planning, project development, engineering design and environmental analysis issues at the federal, state, and local levels in his capacity as a state DOT official and through his research.

Dr. Meyer has written over 140 technical articles and has authored or co-authored numerous texts on transportation planning and policy, including a college textbook for McGraw Hill entitled Urban Transportation Planning: A Decision Oriented Approach. He is an active member of numerous professional organizations, and has chaired committees relating to transportation planning, public transportation, environmental impact analysis, infrastructure design, transportation policy, transportation education, and intermodal transportation. He has conducted several NCHRP and TCRP projects relating to transportation project development, mobility, and community/environmental impacts. Most recently he is co-project director for an NCHRP project on incorporating environmental considerations into transportation planning and project development; and an NCHRP project that is investigating roadside treatments and their impact on highway safety and road performance. He facilitated an AASHTO environmental stewardship competition, which included judging many states’ context sensitive solutions processes. Currently, he is working with the Georgia DOT in developing its context sensitive solutions procedures.

Dr. Meyer is the recipient of numerous awards including the 2000 Theodore M. Matson Memorial Award in recognition of outstanding contributions in the field of transportation engineering; the 1995 Pyke Johnson Award of the Transportation Research Board for best paper in planning and administration delivered at the TRB Annual Meeting; and the 1988 Harland Bartholomew Award of the American Society of Civil Engineers.
for contribution to the enhancement of the role of the civil engineer in urban planning and development. He was recently appointed to the Executive Committee of the Transportation Research Board.

Dr. Meyer has a B.S. degree in Civil Engineering from the University of Wisconsin, an M.S. degree in Civil Engineering from Northwestern University and a Ph.D. degree in Civil Engineering from M.I.T. He is a registered professional engineer in the State of Georgia.

**Sally Oldham**, Oldham Historic Properties, Inc. President
Sally Oldham is President of Oldham Historic Properties, Inc., a consulting firm headquartered in Annapolis, MD. Her practice focuses on management consulting for transportation agencies to assist them with agency-wide implementation of Context Sensitive Design, historic preservation planning and strategic planning for scenic byways programs, heritage areas and heritage tourism. She assisted the Maryland State Highway Administration (MSHA) with designing and conducting the "Thinking Beyond the Pavement" (TBTP) National Workshop held in 1998 that defined the principles of Context Sensitive Design (CSD). Following this effort she developed four project charrettes to identify areas for action to implement CSD principles in MSHA's projects. She helped MSHA design and conduct a statewide workshop for 325 participants that resulted in developing MSHA's TBTP Implementation Plan. MSHA requested Ms. Oldham's services as well to help design the Federal Highway Administration's CSD website. Ms. Oldham serves on AASHTO's Task Force on Context Sensitive Design, chaired by Neil Pedersen, Administrator of MSHA.

Ms. Oldham assisted the Connecticut Department of Transportation (DOT) in developing a Context Sensitive Solutions Implementation Plan and designed and conducted the Northeast Regional CSD Workshop that was held in November, 2001 for 300 participants from 18 states. Ms. Oldham helped New Jersey DOT design their CSD training curriculum in 2000 and designed their course on Respectful Communications and Consensus Building. Ms. Oldham facilitated the work of an Advisory Committee appointed by Delaware DOT to develop Delaware's statewide Scenic and Historic Highways Program. In 2002 she developed a one-day training workshop on CSD for Delaware DOT. Ms. Oldham prepared five CSD case studies in Mid-Atlantic States through the University of Kentucky for the Federal Highway Administration for use in training courses on CSD. For the MSHA Ms. Oldham is developing CSD principles regarding highway design in the right-of-way to apply to Maryland's State Scenic Byways. In 2003 Ms. Oldham worked with a team to develop and test performance measures for CSD in MSHA projects. Additionally, Ms. Oldham is serving as co-principal investigator for a National Cooperative Highway Research Program project to develop performance measures for CSD at a national level.

Ms. Oldham is asked frequently to speak on Context Sensitive Design and related topics at national and regional meetings. She has spoken on CSD at program sessions at four recent annual meetings of the Transportation Research Board (TRB). She serves on the TRB Committee on Landscape and Environmental Design and is a member of TRB's Task Force on CSD.CSS. An architectural historian by training, Ms. Oldham has served as the Acting Chief of Registration for the National Register of Historic Places, Executive Vice President for a national equity syndication firm, Vice President of the National Trust for Historic Preservation and President of Scenic America.

**Joe Palladi**, Georgia DOT, State Planning and Program Administrator

**Julia Perry**, Federal Highway Administration Legal Counsel
Julia L. Perry is Counsel to the Eastern Federal Lands Highway Division (Eastern), a part of the Federal Highway Administration (FHWA). Eastern is responsible for the design and administration of construction contracts for the construction or reconstruction of roads on Federally-administered lands in the Eastern half of the United States – including National Parks, Forests, and Refuges. Eastern's projects have included everything from major parkways – such as the 50 year-old Blue Ridge Parkway and the brand new Natchez Trace Parkway – to repaving the driveway in front of the White House.
As Counsel, Julia serves under the Chief Counsel of the FHWA. She defends or assists in the defense of construction and tort claims brought against the Agency or its Client Agencies; advises the Division on interpretation and development of specifications, statutes, regulations, and policies; and concurs in procurement authorizations.

Julia has served as Counsel to Eastern since 1984. Prior to that, she served for six years in the General Law Division of the Office of the Chief Counsel in FHWA. She is a graduate of the George Washington University’s National Law Center and got undergraduate degrees from the University of Michigan. She is a member of the District of Columbia Bar.

Catherine L. Ross, CQGRD Director and Georgia Tech’s Harry West Chair
Catherine L. Ross is Director of the Center for Quality Growth and Regional Development (CQGRD) and Harry West Professor for Regional Planning at Georgia Institute of Technology in Atlanta, Georgia. She serves on the Executive Committee of the Transportation Research Board, National Academy of Sciences and the ENO Transportation Foundation in Washington, D.C. She previously served as a senior policy advisor to the Transportation Research Board. Catherine is also past president of the National Association of Collegiate Schools of Planning (ASCP).

Dr. Ross previously served on the Board of Directors of the Metropolitan Atlanta Rapid Transit Authority (MARTA) and organized and served as the first Executive Director of the Georgia Regional Transportation Authority (GRTA). This innovative regional entity was created by the Georgia Legislature in response to the federal cut-off of transportation funds to the Atlanta region. GRTA was created to help 13 counties out-of-compliance with clean air standards develop new transportation plans and initiatives to help them meet or exceed federal requirements.

Ross began her career at Georgia Tech as an assistant professor in the Graduate City Planning Program, associate professor, then full professor in 1990. She has held a variety of leadership positions at Georgia Tech including vice provost for academic affairs, associate vice president for academic affairs, co-director of the Transportation Research and Education Center and director of the College of Architecture’s PH.D program.

Locally, Ross serves on several boards/committees including the ULI-District Council Steering Committee, Metro Atlanta Quality Growth Task Forces, Atlanta Convention and Visitors Bureau, Ferst Center Advisory Board, High Museum of Art and the Midtown Alliance. Regionally, she co-founded the “Healthy Places Research Group” in cooperation with Emory University’s School of Public Health. Ross earned a Bachelor’s degree from Kent State University, a Master’s degree in regional planning from Cornell University and a doctorate in city and regional planning from Cornell in addition to completing post-decorate work at the University of California, Berkeley.

In addition to teaching at Georgia Tech, Ross has conducted research for numerous governmental transportation agencies. She has published extensively in the fields of Urban Planning, transportation planning and public participation.

Gary Toth, New Jersey DOT Director of Project Planning and Development
Gary has 30 years of experience within the New Jersey Department of Transportation (NJDOT), and is currently Director of Project Planning and Development. His Division is charged with generating a half a billion dollars of new starts for NJDOT on an annual basis. Project Planning involves creating a partnership with the host communities and regulatory agencies, and systematically ratcheting down project expectations to create a good fit between engineering, environmental and political considerations.
Gary has worked for NJDOT since graduating from Stevens Institute of Technology in NJ in 1973 with a Bachelor's of Engineering (Major in Civil Engineering). He also is a graduate of the Environmental Management Institute at the University of Southern California in 1980.

Gary is one of the originators of the NJDOT Task Force on Context Sensitive Design (CSD) which has been working to implement CSD “Thinking Beyond the Pavement” principles within NJDOT since 1999. He has participated in workshops or peer reviews on CSD or CIA in Maryland, Connecticut, Washington D.C, Indiana, and Oregon.

Gary has been a member of the National Community Impact Assessment Design Team since 1998. He helped evolve that Team into the Transportation Research Board’s Community Impact Assessment Subcommittee in 2001, and remains a member today. In October, 2001, he organized a three day TRB Northeastern US Workshop on Community Impact Assessment, and will do so again in 2005. Prior to that, he was a member as well as Secretary/Recorder of the AASHTO (American Association of State Highway and Transportation Officials) Task Force on Corridor Preservation.

Gary is 52 years old, single with 3 children. He enjoys reading, coaching soccer, cooking and wine.
Georgia Department of Transportation (GDOT): The Georgia Department of Transportation is committed to a safe, efficient and sustainable transportation system for all users. Through dedicated teamwork and responsible transportation leadership, GDOT supports economic development, environmental sensitivity, and an improved quality of life for all.

Metropolitan Atlanta Rapid Transit Authority (MARTA): MARTA is a partner in a multi-modal operating system that offers a seamless ride on an equitable basis through the Greater Atlanta Region. MARTA is committed to providing comprehensive, quality public transportation services in a safe and cost-effective manner.

Federal Highway Administration (FHWA): FHWA is an agency of the U.S. Department of Transportation (DOT). FHWA is headquartered in Washington, DC, with field offices in every State, the District of Columbia, and Puerto Rico. FHWA is charged with the broad responsibility of ensuring that America’s roads and highways continue to be the safest and most technologically up-to-date. Although State, local, and tribal governments own most of the Nation’s highways, FHWA provides financial and technical support for constructing, improving, and preserving America’s highway system. The administration’s mission is “Enhancing Mobility through Innovation, Leadership, and Public Service.”

Association County Commissioners of Georgia (ACCG): It is the mission of the Association County Commissioners of Georgia to enhance the role, stature and responsiveness of county government in Georgia. Since counties are the level of government closest to the people and serve all the people of the state, ACCG will promote the ability of Georgia counties to provide public services responsibly, efficiently and cost effectively through cooperative legislative action, education of public officials, provision of quality member services and technical assistance, and increasing public awareness of critical local government issues.

ACCG is a nonprofit instrumentality of Georgia’s county governments. Formed in 1914 with 19 charter county members, today ACCG serves as the consensus-building, training, and legislative organization for all 159 county governments in the state. With this primary charge, ACCG works to ensure that the counties can provide the necessary leadership, services and programs to meet the health, safety and welfare needs of their citizens.

Georgia Municipal Association (GMA): GMA’s purpose is to anticipate and influence the forces shaping Georgia’s communities and to provide leadership, tools and services that assist local governments in becoming more innovative, effective and responsive.

Created in 1934, the Georgia Municipal Association (GMA) is the only state organization that represents municipal governments in Georgia. Based in Atlanta, GMA is a voluntary, non-profit organization that provides legislative advocacy, educational, employee benefit and technical consulting services to its members. GMA’s membership currently totals more than 485 municipal governments, accounting for
more than 99 percent of the state's municipal population. A 56-member Board of Directors, composed of city officials, governs GMA. Program implementation is charged to the Executive Director and staff of 60-70 full-time employees.

ARC

Atlanta Regional Commission (ARC): The Atlanta Regional Commission is the regional planning and intergovernmental coordination agency for the 10-county area including Cherokee, Clayton, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry, and Rockdale counties, as well as the City of Atlanta. For more than 50 years, ARC and its predecessor agencies have helped to focus the region's leadership, attention and resources on key issues of regional consequence.

ARC is dedicated to unifying the region's collective resources to prepare the metropolitan area for a prosperous future. It does so through professional planning initiatives, the provision of objective information and the involvement of the community in collaborative partnerships.

ULI Atlanta

Urban Land Institute, Atlanta District Council (ULI-Atlanta): Through District Council sponsored educational forums and events such as trends conferences, Smart Growth programs, and project tours, through community outreach programs, and by providing industry expertise to community leaders, the opportunity to influence local land use policy and practice continues to be the focus and achievement of ULI Atlanta.

In the ULI fashion of offering an unbiased and non-partisan exchange on issues impacting the industry, ULI Atlanta strives to provide the avenues for active dialogues between private industry, environmental organizations, and public agencies to help provide solutions to local and regional issues.

Center for Quality Growth and Regional Development (CQGRD): CQGRD was established in 2003 to work cooperatively with other entities to help society achieve a sustainable, superior quality of life through the generation of new knowledge in land development policy, city and regional planning, architecture and community design, transportation systems, and environmental resource management. To achieve this end, CQGRD is dedicated to the study, dissemination, and implementation of ideas and technology that improve the theory and practice of quality growth.

Post, Buckley, Schuh & Jernigan, Inc. (PBS&J) are sponsoring the Tuesday, May 11 reception. PBS&J offers a substantive portfolio of service and technical offerings coupled with one of the strongest company cultures in the business. The firm is guided by a mission to provide professional services to their clients through technical excellence and innovation.
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CSD Symposium May 10-12, 2004
Principles of Context Sensitive Design

Source: Federal Highway Administration (http://www.fhwa.dot.gov/csd/qualities.htm)

Thinking Beyond the Pavement "Qualities and Characteristics"
The following principles were presented at the 1998 workshop, Thinking Beyond the Pavement: A National Workshop on Integrating Highway Development With Communities and the Environment, held in Maryland.

Qualities of Excellence in Transportation Design

- The project satisfies the purpose and needs as agreed to by a full range of stakeholders. This agreement is forged in the earliest phase of the project and amended as warranted as the project develops.
- The project is a safe facility for both the user and the community.
- The project is in harmony with the community, and it preserves environmental, scenic, aesthetic, historic, and natural resource values of the area, i.e., exhibits context sensitive design.
- The project exceeds the expectations of both designers and stakeholders and achieves a level of excellence in people's minds.
- The project involves efficient and effective use of the resources (time, budget, community) of all involved parties.
- The project is designed and built with minimal disruption to the community.
- The project is seen as having added lasting value to the community.

Characteristics of the Process Contributing to Excellence

- Communication with all stakeholders is open, honest, early, and continuous.
- A multidisciplinary team is established early, with disciplines based on the needs of the specific project, and with the inclusion of the public.
- A full range of stakeholders is involved with transportation officials in the scoping phase. The purposes of the project are clearly defined, and consensus on the scope is forged before proceeding.
- The highway development process is tailored to meet the circumstances. This process should examine multiple alternatives that will result in a consensus of approach methods.
- A commitment to the process from top agency officials and local leaders is secured.
- The public involvement process, which includes informal meetings, is tailored to the project.
- The landscape, the community, and valued resources are understood before engineering design is started.
- A full range of tools for communication about project alternatives is used (e.g., visualization).
Implementing Context Sensitive Design

Source: Federal Highway Administration (http://www.fhwa.dot.gov/csd/qualities.htm)

The following context sensitive design action recommendations are from the 1998 Thinking Beyond the Pavement Workshop, held in Maryland.

Actions for the American Association of State Highway and Transportation Officials (AASHTO)

- Acknowledge the Federal Highway Administration (FHWA) publication Flexibility in Highway Design; sponsor a "bridging" document that further addresses safety and liability issues.
- Encourage States to adopt Federal language from 23 U.S.C. 109 in their own policies to include environmental, scenic, aesthetic, historic, community, and preservation criteria in projects, along with safety and mobility.
- Advance the philosophy of context sensitive design in the strategic plans of AASHTO committees.
- Work with the FHWA and with advocacy and regulatory organizations to change Federal regulations that discourage context sensitive design.
- Create a more efficient process for incorporating research findings into policy and The Green Book. Dependence on volunteer review of research in the midst of a recent surge of research yields a very slow pace of change.
- Work with FHWA and individual States to spread word of this Thinking Beyond the Pavement conference and to develop training programs.

Actions for States

- Review procedures, organizational structure, and staffing to encourage and institutionalize context sensitive design.
- Develop educational programs for staff and consultants that develop the necessary attitudes and skills to carry out context sensitive design, including highway design, communication skills, and process improvements.
- Provide the tools necessary for context sensitive design, including 3D presentation tools.

Actions for Regulatory Organizations

- Establish partnering relationships with transportation interest groups that will reliably produce context sensitive designs from the beginning of the design process.
- Address and inform advocacy organizations.
- Become involved with dialogue among transportation interest groups to ensure that concerns about safety, liability, the environment, and other issues are properly reflected.

Actions for Advocacy Organizations

- Connect to the dialogue among transportation interest groups to ensure that concerns about safety, liability, the environment and other issues are properly reflected.
Actions for Researchers

- Identify areas where research will assist context sensitive design, such as providing information on the life-cycle costs of landscaping and developing faster ways to put safety research results into the hands of practitioners.

Actions for Academics and Professional Organizations

- Create course work and conferences that examine context sensitive design; provide the skills for individuals to become creative, productive members of a transformed highway development process.
Overview of the Highway Planning

Excerpt from *Flexibility in Highway Design*, FHWA

In order for a designer to be sensitive to the project's surrounding environment, he or she must consider its context and physical location carefully during this stage of project planning. This is true whether a house, a road, a bridge, or something as small as a bus passenger waiting shelter is to be built. A data collection effort may be needed that involves site visits and contacts with residents and other stakeholders in the area. A benefit of the designer gathering information about the physical character of the area and the values of the community is that the information will help the designer shape how the project will look and identify any physical constraints or opportunities early in the process (see Figure 1.4).

The physical character of an area can vary, from a peaceful countryside...
Snickersville Turnpike, Loudoun County, VA

... to an urban corridor.
Martin Luther King Blvd., Baltimore, MD
Some of the questions to ask at this stage include:

- What are the physical characteristics of the corridor? Is it in an urban, suburban, or rural setting?
- How is the corridor being used (other than for vehicular traffic)? Are there destination spots along the traveled way that require safe access for pedestrians to cross? Do bicycles and other nonmotorized vehicles or pedestrians travel along the road?
- What is the vegetation along the corridor? Is it sparse or dense; are there many trees or special plants?
- Are there important viewsheds from the road?
- What is the size of the existing roadway and how does it fit into its surroundings?
Are there historic or especially sensitive environmental features (such as wetlands or endangered species habitats) along the roadway?

How does the road compare to other roads in the area?

Are there particular features or characteristics of the area that the community wants to preserve (e.g., a rural character, a neighborhood atmosphere, or a main street) or change (e.g., busy electrical wires)?

Is there more than one community or social group in the area? Are different groups interested in different features/characteristics? Are different groups affected differently by possible solutions?

Are there concentrations of children, the elderly, or disabled individuals with special design and access needs (e.g. pedestrian crosswalks, curb cuts, audible traffic signals, median refuge areas)?

**Final Design**

After a preferred alternative has been selected and the project description agreed upon as stated in the environmental document, a project can move into the final design stage. The product of this stage is a complete set of plans, specifications, and estimates (PS&Es) of required quantities of materials ready for the solicitation of construction bids and subsequent construction. Depending on the scale and complexity of the project, the final design process may take from a few months to several years.

The need to employ imagination, ingenuity, and flexibility comes into play at this stage, within the general parameters established during planning and project development. Designers need to be aware of design related commitments made during project planning and project development, as well as proposed mitigation. They also need to be cognizant of the ability to make minor changes to the original concept developed during the planning phase that can result in a "better" final product.
The interests and involvement of affected stakeholders are critical to making design decisions during this phase, as well. Many of the same techniques employed during earlier phases of the project development process to facilitate public participation can also be used during the design phase.

The following paragraphs discuss some important considerations of design, including developing a concept, considering scale, and detailing the design.

**Developing a Concept**
A design concept gives the project a focus and helps to move it toward a specific direction. There are many elements in a highway, and each involves a number of separate but interrelated design decisions. Integrating all these elements to achieve a common goal or concept helps the designer in making design decisions.

Some of the many elements of highway design are illustrated in Figure 1.5, including:

- Number and width of travel lanes, median type and width, and shoulders
- Traffic barriers
- Overpasses/bridges
- Horizontal and vertical alignment, and affiliated landscape.

Having a multidisciplinary team can assist in establishing a design "theme" for the road or determining the existing character of a corridor that needs to be maintained. Design consistency from the perspective of physical size and visual continuity is an important factor when making such improvements, and a multidisciplinary design team can assist in maintaining that consistency.

The earlier the multidisciplinary team is formed, the better. As with the public, various professionals need to be involved in the decision making process early, when they can have the most effective impact on the eventual design of a project. In this way, it is possible to avoid having to force fit aesthetic design treatments, such as landscape treatments, as "addons" to the project to try to "pretty up" a design that isn't quite right or one that is unacceptable to the community. The opportunities for landscape architects, architects, planners, urban designers, and others will be enhanced, and the chances of a successful project increased, if their skills are utilized from the beginning. A multidisciplinary design team may consist of some of the professionals listed in Figure 1.6, in addition to highway engineers.

**Figure 1.5**
All elements of highway design need to be part of an overall concept.
A multidisciplinary design team consists of some of these professionals.

For this overpass, an artist and structural engineers worked together to achieve a design that represents the unique characteristics of the area. (Thomas Road Overpass, Phoenix, AZ)

Piers were designed and decorated with art forms from the Hohokam tribe, whose ancient burial ground is near the overpass. (Thomas Road Overpass, Phoenix, AZ)

Using the concept approach helps to achieve a holistic design for the project. Using the surrounding context and public input to guide the development of the concept helps to ensure that the project is in harmony with its surroundings and that the elements of the project are in harmony with each other.

An excellent example of a holistic design approach is the Merritt Parkway in Connecticut. Designed and built in the 1930's, its overall design philosophy was to build a graceful highway set in a natural environment. This was achieved by using long, gradual vertical curves, rounding out rockcuts to produce a natural appearance, and most important, integrating the traveled way into the terrain through choice of alignment and a carefully planned landscape. The result was a highway that not only met traffic demand, but was also a scenic escape for inhabitants of the urbanized areas it served.
Traveling along the 61km (38mile) route today, it's easy to see how all the elements of the roadway fit together to achieve this parkway concept. The setting, with its vegetation, appears natural. The pavement width is minimal; opposing traffic is separated by a grass median and most shoulders are covered with grass. Despite the population growth that has developed around the parkway, and in many cases directly up to the parkway, the density of trees and the carefully planned topography hide this development from view. One of the most striking features of the parkway is its bridges. There are 72 in all (35 of which carry intersecting crossroads over the parkway), and each is designed differently. Even the materials used vary considerably, from stone to concrete to steel, yet they all work together, because they are all designed within the same scale. They are all approximately the same length and height, which gives the appearance that they all belong together, despite the fact that some are arch construction and some post and beam.
A doublespan stone bridge along the Merritt Parkway.

A stone bridge another of the unique overpasses on the Merritt Parkway.

For existing roads, where improvements may only involve a small section of the road, there may not be the need to develop an entirely new concept for the roadway. In fact, it would probably be inappropriate to do so, because the result would be that one small section of the roadway looked much different than the rest. It is important in these cases to be consistent with the existing design of the overall route, using the information gathered to assess the character of the area and to design with sensitivity to that character.

An exception might be when the environment of the road changes along a short section. For instance, a rural collector may change characteristics as it enters a town and becomes an urban street for a few blocks, then changes back to a rural collector. Designers working on the urban section of the street do not have to be consistent with the look of the road outside the urban environment, because its character is so different. Both the urban and rural sections should, however, maintain the same general scale in terms of roadway width.

Considering Scale
People driving in a car see the world at a much different scale than people walking on the street. This large discrepancy in the design scale for a car versus the design scale for people has changed the overall planning of our communities. For example, it has become common in many suburban commercial areas that a shopper must get in the car and drive from one store to the next. Except in the case of strip malls, stores are often separated by large parking lots and usually have no safe walkways for pedestrians. This makes it difficult to get around any other way but by car. This type of design scale is in sharp contrast to
preautomobile commercial areas that commonly took the form of "main streets," where walking from one store to the next was the norm.

**Main streets are much more pedestrian friendly, partly because of their design scale, than the typical modern commercial strip.**

A typical "modern" commercial strip.

A "main street."
*(Bellevue Avenue, Newport, RI)*

Trying to accommodate users of the road who have two different design scales is a difficult task for designers; however, designers must always consider the safety of pedestrian and nonvehicular traffic, along with the safety of motorists. Both are users of the road. In many road designs, pedestrian needs were considered only after the needs of motorized vehicles. Not only does this make for unsafe conditions for pedestrians, it can also drastically change how a roadway corridor is used. Widening a roadway that once allowed pedestrian access to the two sides of the street can turn the roadway into a barrier and change the way pedestrians use the road and its edges.
The design element with the greatest effect on the scale of the roadway is its width, or cross section. The cross section can include a clear zone, shoulder, parking lanes, travel lanes, and/or median. The wider the overall roadway, the larger its scale; however, there are some design techniques that can help to reduce the perceived width and, thus, the perceived scale of the roadway. Limiting the width of pavement or breaking up the pavement is one option. In some instances, four lane roadways may look less imposing by designing a grass or planted median in the center. Grass shoulders, such as those often used in many parts of the southeastern United States, limit the perceived width of the roadway and still provide a breakdown area for motorists. These types of shoulders may be appropriate, depending on the context of the area; volume, type, and speed of traffic; and the needs of pedestrians and bicyclists. Green space between sidewalks or nonmotorized vehicle paths and the travel lanes also helps to break up the perceived width of the pavement.

Elements (or a lack of elements) along the roadside also contribute to the perceived width of the road and can even affect the speed at which motorists travel. With all else being equal, the wider the perceived road, the faster motorists will travel. Along with horizontal and vertical alignment, crosssection elements, and other elements, such as vegetation along the roadway, buildings close to the road, onstreet parking, and even noise walls, may contribute to reducing the perceived width and speed of the road. Considering these elements is important in designing a facility that is compatible with its surroundings.
Figure 1.7
Relatively minor differences in roadway cross section and the treatment of the roadway edge can have major effects on perceived width.

Shoulder design and elements along the roadside contribute to the perceived width of the roadway.
Rural highway with no shoulder and vegetation along the roadway.
A twolane rural highway with paved shoulder and sparse vegetation.

**Detailing the Design**
Particularly during the final design phase, it is the details associated with the project that are important. Employing a multidisciplinary design team ensures that important design details are considered and that they are compatible with community values. Often it is the details of the project that are most recognizable to the public. A special type of tree that was used as part of the landscape plan, antique lighting, brick sidewalks, and ornamental traffic barriers are all elements of a roadway that are easily recognizable and leave an impression. Because of their visibility, the treatment of details is a critical element in good design.

*A multidisciplinary design team can produce an aesthetic and functional product when the members work together and are flexible in applying guidelines. (Baltimore-Washington Parkway, MD)*

For instance, the stonewall appearance of the traffic barriers on the Baltimore Washington Parkway is one of the first elements noticed by drivers using that route. If a plain concrete barrier had been used instead, the overall appearance of the parkway would change considerably. A design that requires no traffic barriers whatsoever may be considered even more aesthetically pleasing than improved barrier designs, even if they are given a pleasing design treatment.

I-35E, which passes through downtown St. Paul, MN, incorporated many design elements (such as ornate bridge rails and lighting, planted medians, and street furniture) to achieve the identified project goals of integrating the freeway into the urban environment, designing a gateway into downtown, providing pedestrian access, and reflecting the history and character of the area.

Such features as traffic barriers (or the lack of traffic barriers), bridge rails, and the treatment of overpasses, medians, and landscape development should be integral parts of the design process, not left to the end or forgotten entirely.
An innovative barrier design was used on the Baltimore Washington Parkway (MD).

Much consideration was given to the details of I-35E (St. Paul, MN).

Right-of-way, Construction, and Maintenance
Once the final designs have been prepared and needed right-of-way is purchased, construction bid packages are made available, a contractor is selected, and construction is initiated. During the right-of-way acquisition and construction stages, minor adjustments in the design may be necessary; therefore, there should be continuous involvement of the design team throughout these stages. Construction may be simple or complex and may require a few months to several years. Once construction has been completed, the facility is ready to begin its normal sequence of operations and maintenance.

Even after the completion of construction, the character of a road can be changed by inappropriate maintenance actions. For example, the replacement of sections of guardrail damaged or destroyed in crashes commonly utilizes whatever spare guardrail sections may be available to the local highway maintenance personnel at the time. The maintenance personnel may not be aware of the use of a special guardrail design to define the "character" of the highway. When special design treatments are used, ongoing operation and maintenance procedures acknowledging these unusual needs should be developed. For example, the Oregon DOT has developed a special set of maintenance procedures for its scenic and historic highways.
Rehabilitated bridge railings along the historic Columbia River Highway. (Hood County, OR)

Elements of a Successful Process

Table 1.1 summarizes the five basic stages in highway planning and development.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>State DOTs, MPOs, and local governments identify transportation needs and program project to be built within financial constraints.</td>
</tr>
<tr>
<td>Project Development</td>
<td>The transportation project is more clearly defined. Alternative locations and design features are developed and an alternative is selected.</td>
</tr>
<tr>
<td>Design</td>
<td>The design team develops detailed PS&amp;Es.</td>
</tr>
<tr>
<td>Right-of-Way</td>
<td>Additional land needed for the project is purchased.</td>
</tr>
<tr>
<td>Construction</td>
<td>The State or local government selects the contractor, who then builds the project.</td>
</tr>
</tbody>
</table>

In other words, a successful highway design process includes the following:

- Early and continuous public involvement throughout the project
- The use of visualization techniques to aid the public
- Early and continuous use of a multidisciplinary design team
- The application of flexible and creative design criteria

Some of these elements are discussed in the following paragraphs.

**Public Involvement.** A successful highway process includes public involvement. To be effective, public involvement must be sought from the beginning, during the definition of need for the project. The public should be involved while there are the greatest opportunities for changes in the design. This will result in a smoother and faster process.

Public input can also help in assessing the characteristics of the area and determining what physical features are most valued by the community, thus having the greatest potential for impact. Knowing the features of an area are valued may help designers avoid them altogether and reduce the need for mitigation and the likelihood for controversy. After working with the community to define the project and
assess the physical character, continuous public involvement is important to gain input on possible alternatives.

Identifying community values, defining the project need with the public, gathering information on the area, and solving design conflicts with the public necessitate a proactive public involvement effort going far beyond the usual presentation of well developed design alternatives at formal public meetings and hearings. For example, by using a workshop meeting format early in project design, highway designers can ask members of the public to identify types of design features that they find appealing or unappealing. In September 1996, the FHWA and the Federal Transit Administration (FTA) issued Public Involvement Techniques for Transportation Decisionmaking, which describes a wide variety of these innovative public involvement techniques.

**Visualization Tools.** The most effective communication between two parties takes place when both speak the same language. This can be achieved in design using illustrations that show the public what a project will look like before it is built. Increasingly, computer generated visualization tools are being used for this purpose. Designers can communicate conceptually what they are planning for an area, and citizens can react with a certain degree of confidence that they understand what is being communicated to them. Lower end computer systems use a photograph taken of the existing project area and superimpose a drawing, using computer graphics, of what the new construction will look like. Visualization tools, such as these, help the public gain a better understanding of the proposed improvement project.

*Visualization tools were used to generate these images showing the public a proposed highway improvement. (State Highway 38, MN)*
Guidelines for Quality Growth

Recommended Practice, Institute of Transportation Engineers, pp. 41-46, 60-64, 2003. To order the complete guide visit www.ite.org.

Guideline 1.2.1: To create a balanced, multi-modal transportation system with maximum connectivity, emphasis should be placed on planning ROW for non-vehicular transportation modes and mass transit.

A key objective of smart growth is transportation efficiency. Smart growth reduces the need to add to roadway capacity in the future. To reduce VMT and maximize the synergy between complementary land uses, walking and bicycling should be the easiest, most convenient modes of transportation available for short trips. The creation of a well-connected system of walk/bicycling pathways should be a planning priority. For longer trips, transit should be made as convenient as possible by providing direct pedestrian and street connections, as well as considering bicycle stations. ROW and alignments for streets and highways should provide efficient infrastructure investment, but should not compromise the connectivity and efficiency of pedestrian, bicycle and transit systems. (See Objective 3.2 for details of pedestrian and transit-friendly environments).

Guideline 1.2.2: Plan roadway network consistent with the planned character of the adjacent surroundings and plan transportation infrastructure and services for anticipated 30 to 40 year need, based on smart growth concepts.

ROW planning and preservation should balance the demand to accommodate ultimate anticipated volumes of people and goods movement, with the need to maintain a walkable and bicycle friendly environment and avoid, to the greatest extent possible, the construction of facilities that sever communities. An alternative to accommodating all needs on individual major streets is to create a dense network that permits total volumes to be distributed among many routes. Factors to be considered include demand for the following:

- Vehicle travel and bike lanes;
- Access or merge lanes;
- Rail transit (including stations);
- Inter-city rail;
- Bus (rapid transit or conventional);
<table>
<thead>
<tr>
<th>Functional Classification</th>
<th>ROW Width (feet)</th>
<th>Most Compatible Land Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bikeway (Separate ROW may be parallel to street or on totally different alignment.)</td>
<td>12-30</td>
<td>All</td>
</tr>
<tr>
<td>Pedestrian way (Separate ROW may be parallel to street or on totally different alignment.)</td>
<td>8-20</td>
<td>All but Industrial</td>
</tr>
<tr>
<td>Light Rail (At-grade rail transit usually running in or parallel to streets; station platforms adjacent to tracks.)</td>
<td>50-100</td>
<td>Commercial, Retail, High-density Residential, Entertainment/Recreation, Civic Use, High School/Community College</td>
</tr>
<tr>
<td>Bus Rapid Transit Roadway (Separate road that may be within street or freeway ROW or completely separate; at least partially grade-separated.)</td>
<td>50-100</td>
<td>Commercial, Retail, High-density Residential, Entertainment/Recreation, Civic Use, High School/Community College</td>
</tr>
<tr>
<td>High Occupancy Vehicle Roadway (Separate road that may be within another ROW; may be at least partially grade-separated.)</td>
<td>80</td>
<td>Industrial, Commercial, Retail/Restaurant</td>
</tr>
<tr>
<td>Freeway (Longer distance trips at higher speed; heavy volumes of traffic beyond the capacity of surface streets; no access to adjacent properties except via frontage roads. ROW may accommodate other modes, but no conflicting movements permitted.)</td>
<td>300-400 (more at interchanges)</td>
<td>Industrial, Commercial, Retail/Restaurant, Office, Entertainment/Recreation</td>
</tr>
<tr>
<td>Arterial (Inter neighborhood or area trips at moderate speeds and high volumes. Transit may include bus rapid-transit applications and other transit preferential treatments. Mostly through trips. Property access is a secondary function. Pedestrians to be accommodated; bicycles may be accommodated on arterial or convenient accessible parallel route.)</td>
<td>80-130 (more at interchanges)</td>
<td>Office/Commercial, Industrial, High Density Residential, Retail/Renaunt, Entertainment/Recreation, High School/Community College, Civic Use</td>
</tr>
<tr>
<td>Minor arterial (Inter neighborhood or area trips at moderate speeds and moderately high volumes. Mostly through trips, but generally shorter than on major arterial. Transit may include preferential treatments. Property access is a secondary function. Pedestrians to be accommodated; bicycles may be accommodated on arterial or convenient accessible parallel route. Special treatments to enhance walkability may be included where pedestrian activity is to be significant.)</td>
<td>80-110 (more at interchanges)</td>
<td>Office/Commercial, Industrial, High and Medium Density Residential, Retail/Renaunt, Entertainment/Recreation, High School/Community College, Civic Use</td>
</tr>
<tr>
<td>Collector (Connects local streets to arterial street system, may connect to but not through adjacent neighborhood; property access provided. Pedestrians and bicycles should be provided convenient facilities.)</td>
<td>50-70</td>
<td>High/Moderate Density Residential, Retail/Renaunt, Elementary and Middle Schools, Civic Use</td>
</tr>
<tr>
<td>Local (Property access and local circulation have highest priority; pedestrian and bike facilities should have priority within ROW.)</td>
<td>40-50</td>
<td>Moderate/Low Density Residential, Retail/Renaunt, Commercial Schools</td>
</tr>
<tr>
<td>Truck Roadway (Separate road for trucks only that may be within another ROW; may be at least partially grade-separated.)</td>
<td>50-100</td>
<td>Commercial, Industrial</td>
</tr>
<tr>
<td>Railroad (Main lines and spurs; yards require additional ROW.)</td>
<td>50-100</td>
<td>Commercial, Industrial</td>
</tr>
</tbody>
</table>

* Desirable ROW widths for new facilities; retrofits may be done with less when space constrained.
• HO/T lanes;
• Bicycle and pedestrian ways;
• Possible structures (i.e., grade separations);
• Access-management features;
• On-street parking;
• Drainage;
• Public utilities;
• Private utilities and communications systems (including some that may not currently exist);
• Aesthetic and other environmental amenities and mitigation; and
• Park-and-ride facilities.

Guideline 1.2.3: Establish functional ROW classifications for use in designating ROW, design criteria, and access management.
Transportation facilities should be classified according to their functions within the multi-modal transportation system, as shown in Table 2.

Guideline 1.2.4: Establish ultimate access characteristics for each ROW classification and road segment.
To maximize the efficiency of transportation facilities and avoid creating points of conflict that can result in reduced road capacity and increased congestion and collisions, appropriate access management, including spacing of intersections, signals, median openings and driveways is essential. Table 3 suggests access characteristics for various transportation classifications.

Guideline 1.2.5: Create a long-term plan with preservation mechanisms to ensure availability of adequate ROW that is in harmony with larger community visions.
To ensure that roadways are situated to best accommodate smart growth development, states or provinces and regions should work together with local planners to formulate plans for the designation and preservation of transportation corridors to meet ultimate needs. In situations where agencies lack the authority to effectively protect transportation corridors, the agencies should help identify corridors and then solicit the cooperation of the city, county, or state or province to implement corridor protection (CP) through land-use controls or other available means.

Methods of ROW preservation include:
• Official map, which is an effective local-level tool for designating future ROW and restricting development;\footnote{34}
• Subdivision regulation ordinances allowing local governments to reserve corridors for transportation ROW during new subdivision planning;
• Police powers, such as zoning regulations, eminent domain;
• Land-use ordinances, which must be enacted at the local level;
**TABLE 3**
Access characteristics of selected urban transportation facility types.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Intersection Spacing (minimum)</th>
<th>Traffic Signals</th>
<th>Median Openings</th>
<th>Driveways</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle</td>
<td>N/A</td>
<td>N/A</td>
<td>Depressed medians at all crossings</td>
<td>Maximum 2% slope across pedestrian way</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>500 feet maximum</td>
<td>Major pedestrian crossings</td>
<td>Depressed medians at all crossings</td>
<td>Maximum 2% slope across pedestrian way</td>
</tr>
<tr>
<td>LRT</td>
<td>300 feet</td>
<td>¼ mile minimum (1 mile desirable)</td>
<td>¼ mile minimum (1 mile desirable)</td>
<td>N/A</td>
</tr>
<tr>
<td>BRT</td>
<td>1 mile (2 miles if grade separated)</td>
<td>1 mile</td>
<td>Intersections only</td>
<td>N/A</td>
</tr>
<tr>
<td>HOV</td>
<td>3 miles (barrier separated)</td>
<td>3 miles</td>
<td>Intersections only</td>
<td>N/A</td>
</tr>
<tr>
<td>Freeway</td>
<td>1 mile</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Arterial</td>
<td>¼ mile¹</td>
<td>¼ mile desirable ¼ mile minimum²</td>
<td>400 feet minimum</td>
<td>100-300 feet*¹</td>
</tr>
<tr>
<td>Collector</td>
<td>300 feet</td>
<td>¼ mile</td>
<td>N/A</td>
<td>100 feet¹</td>
</tr>
<tr>
<td>Local</td>
<td>300 feet**</td>
<td>N/A</td>
<td>N/A</td>
<td>30 feet residential</td>
</tr>
<tr>
<td>Truck</td>
<td>2 miles</td>
<td>2 miles</td>
<td>Intersections only</td>
<td>N/A</td>
</tr>
<tr>
<td>Railroad</td>
<td>100 ft. to parallel street intersection; ¼ mile between crossings</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*¹100 feet is appropriate for right turns only
**²Offset intersections should have spacing of at least 100 feet

- Access management, which limits or sets criteria for road (intersection) or property access to transportation facilities;
- Early fee acquisition which permits purchase of future ROW by an agency in advance of actual need;
- Land banking abandoned railroad rights-of-way for future use as transportation ROW; and
- Voluntary private-sector contributions.

**Objective 1.3: Manage traffic within residential neighborhoods and business districts.**

Minimizing through-traffic within the interior of neighborhoods, activity centers and other areas reduces vehicle conflicts with pedestrians and bicycles and reduces the (unnecessary) intrusive effect of motor vehicle traffic on the quality of life. It also can increase safety and reduce noise in sensitive areas. By creating a network of streets forming a grid, motorists can choose many different routes, making it less likely that a set of streets will be used as the predominate throughway. Through the incorporation of traffic calming measures, neighborhood/residential streets can be designed to discourage faster moving through-traffic.
Guideline 1.3.1: Design high-activity streets to serve all modes well while managing conflicts between users.

Arterial streets are designed primarily to carry longer distance trips including through traffic; access is a secondary function. Arterials should function at higher speeds than local streets, usually between 30 and 45 miles per hour in developed areas. The higher speeds help the arterials attract the through-traffic away from local and collector streets that make up the interior of local street systems. To attract through-traffic around rather than through neighborhoods, major arterials should be located on the periphery of neighborhoods. Minor arterials may penetrate non-residential neighborhoods. All arterials should encourage walking and bicycling and provide safe opportunities for pedestrian crossings.

Guideline 1.3.2: Provide collector streets within neighborhoods to serve as connections between local streets and arterials. Design collector streets for low speeds to discourage through-traffic.

Collector streets connect local streets to the arterial street system. Collectors may also connect adjacent neighborhoods, but should generally not be continuous through more than one neighborhood. Collector streets generally work best if they have continuity within neighborhoods but are offset at arterial streets to discourage through-traffic. For more information on connectivity, see Objective 2.3 (complete ‘missing links’ in transportation networks to provide connectivity) and Guideline 3.2.1, (provide an easily comprehensible network of pedestrian/bicycle paths to provide convenient linkages within and between neighborhoods).

Guideline 1.3.3: Design streets to encourage travel speeds consistent with their functions.

Design streets for both minimum and maximum speeds consistent with their designated functions using grades, on-street parking, horizontal and vertical curvature, sight distance, sight lines and pavement width. Also use lighting, landscaping, street furniture and other features to reinforce street function and appropriate travel speeds. Table 4 shows suggested speed ranges for various classifications of urban streets.

<table>
<thead>
<tr>
<th>Functional Classification</th>
<th>Design Speed (Min-Max) (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterial</td>
<td>30-45</td>
</tr>
<tr>
<td>Collector</td>
<td></td>
</tr>
<tr>
<td>Residential area</td>
<td>25-30</td>
</tr>
<tr>
<td>Commercial area</td>
<td>25-30</td>
</tr>
<tr>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>Residential area</td>
<td>20-25</td>
</tr>
<tr>
<td>Commercial area</td>
<td>25-30</td>
</tr>
</tbody>
</table>

Guideline 1.3.4: Configure and design the use of streets within activity centers to discourage long-distance through traffic.

Streets within areas of high pedestrian activity should be aligned, configured and designed to reduce through-vehicle traffic and prioritize pedestrian and...
bicycle travel. Provide bicycle lanes, frequent pedestrian crossings and utilize traffic control devices to reinforce functions. Provide maximum access on periphery of activity centers for service and delivery vehicles and for through-traffic without sacrificing pedestrian and bicycle safety.

*Guideline 1.3.5: Avoid unnecessarily and/or excessively circuitous streets.*
Design streets that directly interconnect to limit circuitousness and minimize unnecessary vehicle, bicycle and pedestrian mileage. This will also encourage walking and bicycling for short trips. However, this does not mean that all streets need to be straight, as streets should be designed in context to the terrain, and natural and built features of the area.

*Guideline 1.3.6: Include transit agencies in street system plan review processes.*
Include transit agency input in the street system design process to ensure that the street system has the continuity, directness and capacity necessary to provide direct transit routes and efficient transit circulation.

**TABLE 5**
Suggested orientation of residential development.

<table>
<thead>
<tr>
<th>Street Functional Classification</th>
<th>Residential Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeway</td>
<td>Back to freeway or buffered by other use</td>
</tr>
<tr>
<td>Arterial</td>
<td>Low—not appropriate</td>
</tr>
<tr>
<td></td>
<td>Medium—density side to street or increased setback from street with alley access to parking</td>
</tr>
<tr>
<td>Collector</td>
<td>Low-density—side to collector or alley access</td>
</tr>
<tr>
<td></td>
<td>Others—face, side to street or increased setback from street</td>
</tr>
<tr>
<td>Local</td>
<td>Face street</td>
</tr>
</tbody>
</table>
Guideline 3.1.8: Minimize walking distances and provide direct pedestrian access to transit by locating building entrances on major pedestrian-ways and close to transit stops and stations.

- Provide continuous, direct and convenient linkages to encourage non-motorized access in TOD zones. Block lengths of 300 ft. or less are ideal for a high degree of walkability and minimum circuitousness, while lengths of 400 to 500 ft. still function well.67
- At 600 to 800 foot blocks (and even larger super blocks), mid-block crossings (both cross streets and through the block’s interior) are recommended for direct travel routes and minimum circuitousness.68
- Ensure that sidewalks are located on all through streets serving developed areas. Add to pedestrian security by including pedestrian scale lighting, planting strips, vertical curbs and trees between the roadway, sidewalk and on-street parking to buffer pedestrians from traffic (Table 7).

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Sidewalk Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterials/Collectors</td>
<td>Both Sides</td>
</tr>
<tr>
<td>Local Streets in Commercial Areas</td>
<td>Both Sides</td>
</tr>
<tr>
<td>Local Streets in Residential Areas</td>
<td>Both Sides</td>
</tr>
<tr>
<td>More than 4 units per acre</td>
<td>Both Sides</td>
</tr>
<tr>
<td>1 to 4 units per acre</td>
<td>Both sides recommended, one side minimum</td>
</tr>
<tr>
<td>Less than 1 unit per acre</td>
<td>One side (optional)</td>
</tr>
</tbody>
</table>

Source: Design and Safety of Pedestrian Facilities, Institute of Transportation Engineers, 1998

Guideline 3.1.9: Consider multimodal access, circulation, and land use patterns when designing a development, and include transit centers and/or stops in neighborhood plans. Within the development, provide connectivity between the various modes of transportation. The following are some examples:

- Include paths for walking and bicycling that connect with transit centers to form continuous networks and provide total access;
- Provide secure and sheltered bicycle parking accommodations at transit stops, including bicycle stations on transit lines and at transit nodes. By making it easier to bike to the transit station, the area of TOD influence can extend well beyond a half-mile (walking distance) from the station;
Where necessary, provide circulator buses with conveniently located stops to transport passengers to transit stations; and

- Encourage developers to incorporate transit centers in new site designs by way of the plan-review process.

**Objective 3.2: Create pedestrian-friendly environments.**

Pedestrian-friendly environments are those that facilitate pedestrian activity (Figure 18 and 19). Pedestrian-friendly design incorporates physical improvements such as ample sidewalks, marked crosswalks, appropriate traffic-signal protection, landscaping, street furniture and pedestrian-scale lighting, with amenities such as occasional seating, wayfinding systems and features of interest (e.g., art, kiosks). Efforts to create pedestrian-friendly places should be complemented by funding for ongoing maintenance.

**Guideline 3.2.1: Provide an easily comprehensible network of pedestrian/bicycle paths to provide convenient linkages within and between neighborhoods.**

Paths should be multi-functional and easily understandable in their concept and design. Beyond recreational purposes, such paths should provide bicycle commuter connections between residential developments, businesses and convenience retail developments. Paths should connect to the internal circulation network of the development to provide a seamless system for the pedestrian or bicyclist.

Pedestrian-ways should be planned and designed at a scale conducive to a comfortable walking pace. A comprehensible network relies on a series of "goals" or landmarks spaced no more than a few 100-feet apart. These landmarks should guide the pedestrian through the network and provide points of interest. Although a pedestrian-way need not be straight, it should provide direct access to key destinations and have good sight lines that give visual clues about nearby destinations and surroundings.

![Figure 18. Functional bridge.](image1)

![FIGURE 19. Functional and aesthetically pleasing bridge with pedestrian amenities.](image2)

Source: Glazier Jackson Kercher Anglin Lopez Rinehart
Guideline 3.2.2: Limit effective local street block lengths to create an efficient grid of street and pedestrian connections.
Provide network connectivity in block lengths of 300 to 500 ft. (rectangular grid is not required, but a comprehensible network needs to be provided). Provide access to major street system at key points that provide sufficient vehicular access but do not attract through-traffic. Where street connectivity is limited and pedestrian routes are spaced over 500-ft. apart, provide intermediate pedestrian connections through or between blocks as shown in Figure 20.

Guideline 3.2.3: Ensure safe movement of pedestrians.
- Provide sidewalks of sufficient widths to comfortably accommodate pedestrians. (The minimum sidewalk/pedestrian-way width should be 5 ft.; 5- and 10-ft. widths are typical in centers of higher activity. Refer to design guidelines in American Association of State Highway Officials’ A Policy on Geometric Design of Highways and Streets or ITE’s Design and Safety of Pedestrian Facilities Recommended Practice.)
- Make stair and ramp widths adequate to accommodate up and down passage without conflict. Where grades exceed 5 percent on pedestrian-ways, landings should be provided (incorporate ADA requirements where applicable).
- Provide protective barriers between streets and sidewalks in areas with a history of pedestrian-vehicle accidents.

Guideline 3.2.4: Provide landscaped pedestrian corridors through large parking lots and other areas.
Major pedestrian movements to, from and through large parking areas should be facilitated by using clearly defined pedestrian-ways connecting principal destinations, transit stops and other pedestrian corridors. Landscaping, lighting and other amenities should be provided as appropriate to orient pedestrian movements to these pedestrian-ways.

Guideline 3.2.5: Include medians, islands, or other pedestrian refuges on streets of four lanes or more to provide safer pedestrian crossings.
Pedestrian refuges on wide or busy streets can reduce accident risk by as much as 50 percent and will increase pedestrian convenience as well as safety. Refuge crossings should be at least 6-feet wide, at least four feet deep and either ramped or flush with the pavement to accommodate wheelchairs and bicycles. At signalized intersections, push buttons should be installed at the median refuge of pedestrian-actuated crossings, as well as at both ends of the crossing.
Guideline 3.2.6: Use curb extensions to reduce intersection-crossing distances.
Curb extensions should be used where curb parking exists to shorten crossing distances to lessen the pedestrian’s exposure to traffic, increase visibility for the pedestrian and to slow traffic at the intersection (Figure 21).  

![FIGURE 21. Curb extensions to reduce crossing distance.](image)

Guideline 3.2.7: Ensure that pedestrian crossings are adequately designed and clearly delineated.
Utilize tools such as pavement markings, curb extensions at crosswalks, crosswalk signs and new technologies, such as in-pavement illumination and microwave pedestrian-detection systems, to clearly delineate pedestrian crosswalks at intersections and mid-block intersections. Road signs and pavement markings should be used judiciously and should adhere to the Manual on Uniform Traffic Control Devices (MUTCD).

Guideline 3.2.8: Provide open sightlines to increase pedestrian safety.
Locate street furniture such as signs, utility poles, bus stops, shelters, landscape, benches and other items where they will not interfere with driver visibility. Sight triangles at intersections should not be blocked by street furniture. Where mid-block crossings are provided, street furniture should permit adequate visibility of pedestrians and traffic.

Guideline 3.2.9: Design speed-limiting characteristics into streets to keep vehicular speeds within intended ranges.
Speed-limiting principles and design may be used to moderate the influence of vehicle speeds on the pedestrian environment (Figure 22 and 23).

![FIGURE 22. Wide residential street.](image)

![FIGURE 23. Wide residential street with design modifications.](image)

Source: Steve Price, in association with Dover Kohl & Partners and Glatting Jackson Kercher Anglin Lopez Rinehart, for Johnson City, TN
Table 4 shows suggested maximum speeds for local streets; these speeds may be used to develop design criteria to limit speeds on local streets. Elements that can be designed into a street include the following:

- Speed-limiting horizontal curves in combination with limited tangent lengths (design neighborhood or other streets to limit speed, rather relying solely on speed limit signing);
- Vertical curves;
- Special paving;
- Special intersection treatments;
- Narrowed streets; and
- Other safe speed-limiting geometry.

The application and design of physical and traffic calming elements require a systematic and comprehensive analysis of traffic conditions and the physical and social environment in which they will be applied to be both effective and safe.

Guideline 3.2.10: Limit driveway crossings of sidewalks.
As a general rule, it is best to minimize the number of sidewalk crossings by driveways to reduce conflicts between vehicles and pedestrians. Driveways and sidewalks should intersect where the driveway is level and at the driveway’s narrowest width (Figure 24). Limit the quantity and frequency of driveway-access points and entrances to sites from streets to minimize interruption of pedestrian travel on adjacent sidewalks and walkways. The use of alleys for loading and unloading as well as principal-property access in some locations can eliminate the need for driveways to cross sidewalks.
Publications:

Atlanta Regional Commission, *Quality Growth Toolkit*
http://www.atlantaregional.com/QualityGrowth/Planning/Toolkits/Context_Sensitive_TOOL.PDF

Federal Highway Administration, *Flexibility in Highway Design*

Federal Highway Administration, *Geometric Design Practices for European Roads*
http://international.fhwa.dot.gov/Pdfs/Geometric_Design.pdf


Institute of Transportation Engineers, *Smart Growth Transportation Guidelines: AN ITE Proposed Recommended Practice*
can be purchased online at www.ite.org

Washington State Department of Transportation, *Building Projects that Build Communities*

Web sites:

Advocate for Context Sensitive Highway Solutions
http://www.scenic.org/contextsensitive/advocatecss.htm

Congress for New Urbanism
http://www.cnu.org/

Federal Highway Administration, National Highway Institute
http://www.nhi.fhwa.dot.gov/

Project for Public Spaces
http://www.pps.org/

Urban Land Institute
http://www.uli.org/

Surface Transportation Policy Project
http://www.transact.org/

Walk America
http://www.walkamerica.org

Center for Quality Growth and Regional Development
http://www.coa.gatech.edu/cqgrd/

General information:

U.S. Code, Title 23, Ch. 1, Subchapter I, Sec. 109 (specifications for highway projects)
Site Description

The context sensitive design study area is Northside Drive (State Route 3) in Atlanta from I-75 north to Arden Road, a distance of approximately 2.2 miles. Land use within the study area is comprised of primarily low-density, single-family residential properties located within intact neighborhoods. The neighborhoods date from the 1930s to the 1950s and include Collier Heights, Springlake, Haynes Manor, Argonne Forest, Woodfield, and Northside Hills. Community facilities within the area include several parks, schools, and religious facilities. The single-family houses, schools, and church properties are characterized by maintained/manicured lawns with ornamental shrubs and flowers. However, many of the residences have allowed portions of their properties to become naturalized with a mature tree canopy.
Existing Typical: Northside Drive has two 10-foot travel lanes, one in each direction, with a 10-foot reversible lane and granite curb operating on a rolling alignment. There is existing sidewalk located on the north end of the project on the east side of Northside Drive.

Current Average Daily Traffic (ADT):

- Northside Dr. (SR 3) from I-75 to Collier Road: 27,000 (2000 ADT)
- Northside Dr. (SR 3) from Collier Road to West Wesley Road: 17,000 (2000 ADT)
- Northside Dr. (SR 3) from West Wesley Road to Arden Road: 14,000 (2000 ADT)
- Collier Road (CS 53): 10,100 (1999 ADT)
- Peachtree Battle Avenue (CS 38): 8,180 (1999 ADT)
- West Wesley Road (CS 6): 8,180 (1999 ADT)
- Arden Road (CS 135): 1,550 (1999 ADT)

Existing Right-of-Way:

- Northside Dr. (SR 3): 100’, estimated
- Collier Road (CS 53): 60’, estimated
- Woodward Way (CS 364): 60’, estimated
- Peachtree Battle Avenue (CS 38): 60’, estimated
- West Wesley Road (CS 6): 60’, estimated
- Arden Road (CS 135): 50’, estimated

Existing Traffic Control: Northside Drive has six stop and go traffic signals. The remaining city streets have stop sign control with stop bars.

Accident history for Northside Drive shows an average of 12 accidents per year per intersection. Analysis of traffic operational conditions on Northside Drive reveal the high volume of traffic and the lack of proper lane configuration cause congestion at several intersections along this corridor.
Demographics (US Census Bureau 2000 Census, SF-1 and SF-3 data)

The study area is Northside Drive (U.S. 41, SR003) from I-75 on the south and Arden Road on the north. The study area includes Fulton County, GA census tracts 90, 95, and 99.

<table>
<thead>
<tr>
<th>PEOPLE</th>
<th>Northside Drive Corridor</th>
<th>% of total Northside Population</th>
<th>Atlanta</th>
<th>% of total Atlanta Population</th>
<th>Atlanta - MSA</th>
<th>% of total MSA Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>18,880</td>
<td></td>
<td>416,474</td>
<td></td>
<td>4,112,198</td>
<td>8</td>
</tr>
<tr>
<td>Workers 16 years and over: Total</td>
<td>9,387</td>
<td></td>
<td>178,970</td>
<td></td>
<td>2,060,632</td>
<td>2</td>
</tr>
<tr>
<td>White</td>
<td>17,817</td>
<td>94.37%</td>
<td>138,352</td>
<td>33.22%</td>
<td>2,589,888</td>
<td>8</td>
</tr>
<tr>
<td>Black or African American</td>
<td>547</td>
<td>2.90%</td>
<td>255,689</td>
<td>61.39%</td>
<td>1,189,179</td>
<td>9</td>
</tr>
<tr>
<td>Asian</td>
<td>285</td>
<td>1.51%</td>
<td>8,046</td>
<td>1.93%</td>
<td>135,959</td>
<td>3.31%</td>
</tr>
<tr>
<td>Other</td>
<td>231</td>
<td>1.22%</td>
<td>14,387</td>
<td>3.45%</td>
<td>197,172</td>
<td>4.79%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>281</td>
<td>1.49%</td>
<td>18,720</td>
<td>4.49%</td>
<td>268,851</td>
<td>6.54%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HOUSING</th>
<th>Northside Drive Corridor</th>
<th>% of total Northside Households</th>
<th>Atlanta</th>
<th>% of total Atlanta Households</th>
<th>Atlanta - MSA</th>
<th>% of total MSA Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total households</td>
<td>9,066</td>
<td></td>
<td>168,147</td>
<td></td>
<td>1,504,871</td>
<td>1</td>
</tr>
<tr>
<td>Average household size</td>
<td>2.07</td>
<td></td>
<td>2.30</td>
<td></td>
<td>2.68</td>
<td></td>
</tr>
<tr>
<td>Total housing units</td>
<td>9,904</td>
<td></td>
<td>186,925</td>
<td></td>
<td>1,589,568</td>
<td>8</td>
</tr>
<tr>
<td>Owner occupied</td>
<td>5,877</td>
<td>64.82%</td>
<td>73,473</td>
<td>43.70%</td>
<td>999,564</td>
<td>66.42%</td>
</tr>
<tr>
<td>Renter occupied</td>
<td>3,189</td>
<td>35.18%</td>
<td>94,674</td>
<td>56.30%</td>
<td>505,307</td>
<td>33.58%</td>
</tr>
<tr>
<td>Median number of rooms</td>
<td>6.13</td>
<td></td>
<td>4.60</td>
<td></td>
<td>5.80</td>
<td></td>
</tr>
<tr>
<td>Median year structure built</td>
<td>1965</td>
<td></td>
<td>1962</td>
<td></td>
<td>1982</td>
<td></td>
</tr>
<tr>
<td>Median gross rent</td>
<td>1,017</td>
<td></td>
<td>606</td>
<td></td>
<td>746</td>
<td></td>
</tr>
<tr>
<td>Median value owner-occupied housing units</td>
<td>514,567</td>
<td></td>
<td>144,100</td>
<td></td>
<td>132,600</td>
<td></td>
</tr>
<tr>
<td>Median real estate taxes</td>
<td>6,354</td>
<td></td>
<td>1,336</td>
<td></td>
<td>1,194</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INCOME</th>
<th>Northside Drive Corridor</th>
<th>Atlanta</th>
<th>Atlanta - MSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median household income in 1999</td>
<td>87,016</td>
<td>34,770</td>
<td>51,948</td>
</tr>
<tr>
<td>Median family income in 1999</td>
<td>155,536</td>
<td>37,231</td>
<td>59,313</td>
</tr>
<tr>
<td>Per capita income in 1999</td>
<td>72,437</td>
<td>25,772</td>
<td>25,033</td>
</tr>
<tr>
<td>TRANSPORTATION</td>
<td>Northside Drive Corridor</td>
<td>% of Northside Workers</td>
<td>Atlanta</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------</td>
<td>------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Workers (16 years &amp; over)</td>
<td>9,387</td>
<td>89.16%</td>
<td>178,970</td>
</tr>
<tr>
<td>Car, truck, or van</td>
<td>8,369</td>
<td>89.16%</td>
<td>136,741</td>
</tr>
<tr>
<td>Public transportation</td>
<td>104</td>
<td>1.11%</td>
<td>26,893</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>9</td>
<td>0.10%</td>
<td>206</td>
</tr>
<tr>
<td>Bicycle</td>
<td>0</td>
<td>0.00%</td>
<td>562</td>
</tr>
<tr>
<td>Walked</td>
<td>153</td>
<td>1.63%</td>
<td>6,261</td>
</tr>
<tr>
<td>Other means</td>
<td>97</td>
<td>1.03%</td>
<td>1,566</td>
</tr>
<tr>
<td>Worked at home</td>
<td>655</td>
<td>6.98%</td>
<td>6,741</td>
</tr>
<tr>
<td><strong>Travel Time to Work:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5 minutes</td>
<td>265</td>
<td>3.03%</td>
<td>3,127</td>
</tr>
<tr>
<td>5 to 14 minutes</td>
<td>2,750</td>
<td>31.49%</td>
<td>35,298</td>
</tr>
<tr>
<td>15 to 24 minutes</td>
<td>3,861</td>
<td>44.22%</td>
<td>58,794</td>
</tr>
<tr>
<td>25 to 34 minutes</td>
<td>1,391</td>
<td>15.93%</td>
<td>37,195</td>
</tr>
<tr>
<td>35 to 44 minutes</td>
<td>199</td>
<td>2.28%</td>
<td>9,126</td>
</tr>
<tr>
<td>45 to 59 minutes</td>
<td>137</td>
<td>1.57%</td>
<td>11,502</td>
</tr>
<tr>
<td>60 to 89 minutes</td>
<td>37</td>
<td>0.42%</td>
<td>10,061</td>
</tr>
<tr>
<td>90 or more minutes</td>
<td>92</td>
<td>1.05%</td>
<td>7,126</td>
</tr>
</tbody>
</table>
Environmental Survey

Waters of the United States

The project area was surveyed for jurisdictional waters of the US, including wetlands and streams, as required by the provisions of Executive Order 11990 and subsequent federal regulations. All areas within the project area that displayed one or more wetland characteristics were evaluated using the 1987 US Army Corps of Engineers (USACE) Wetlands Delineation Manual. The following wetland characteristics must be present to meet the USACE wetland definition:

1. prevalence of hydrophytic vegetation;
2. presence of hydric soils; and
3. evidence of permanent or periodic inundation.

During the field survey, a total of 11 jurisdictional waters of the US, including five perennial streams and six intermittent streams, were identified within the vicinity of the proposed project (see Table 1 and Figures 2A, 2B, and 2C). No jurisdictional wetlands were observed.

Table 1: Stream Summary, Northside Drive, Fulton County

<table>
<thead>
<tr>
<th>Stream Site #</th>
<th>Name</th>
<th>Stream Type</th>
<th>Channel Width</th>
<th>Channel Substrate</th>
<th>Stream Bank Morphology</th>
<th>Existing Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>unnamed, flows into a tributary of Peachtree Creek</td>
<td>perennial</td>
<td>12-15'</td>
<td>sand/gravel</td>
<td>unstable, 3-4'</td>
<td>impaired</td>
</tr>
<tr>
<td>2</td>
<td>unnamed, flows into a tributary of Peachtree Creek</td>
<td>perennial</td>
<td>8-10'</td>
<td>sand/gravel</td>
<td>unstable, 2-8'</td>
<td>impaired</td>
</tr>
<tr>
<td>3</td>
<td>Peachtree Creek</td>
<td>perennial</td>
<td>35-40'</td>
<td>sand</td>
<td>unstable, 10-20'</td>
<td>impaired</td>
</tr>
<tr>
<td>4</td>
<td>unnamed tributary of Peachtree Creek</td>
<td>perennial</td>
<td>10-15'</td>
<td>sand</td>
<td>unstable, 4-5'</td>
<td>impaired</td>
</tr>
<tr>
<td>5</td>
<td>unnamed tributary of Stream 4</td>
<td>intermittent</td>
<td>1-3'</td>
<td>sand</td>
<td>unstable, 1-3'</td>
<td>impaired</td>
</tr>
<tr>
<td>6</td>
<td>unnamed tributary of Stream 7</td>
<td>intermittent</td>
<td>2-3'</td>
<td>sand</td>
<td>stable, 4-5'</td>
<td>somewhat impaired</td>
</tr>
<tr>
<td>7</td>
<td>unnamed tributary of Stream 4</td>
<td>intermittent</td>
<td>2-3'</td>
<td>sand</td>
<td>unstable, 4-5'</td>
<td>somewhat impaired</td>
</tr>
<tr>
<td>8</td>
<td>unnamed tributary of Stream 9</td>
<td>intermittent</td>
<td>1-3'</td>
<td>sand/gravel</td>
<td>unstable, 2-4'</td>
<td>somewhat impaired</td>
</tr>
<tr>
<td>9</td>
<td>unnamed tributary of Peachtree Creek</td>
<td>perennial</td>
<td>5-6'</td>
<td>sand/gravel</td>
<td>unstable, 4-5'</td>
<td>impaired</td>
</tr>
<tr>
<td>10</td>
<td>unnamed tributary of Stream 9</td>
<td>intermittent</td>
<td>2-6'</td>
<td>sand/gravel</td>
<td>unstable, 4-5'</td>
<td>impaired</td>
</tr>
<tr>
<td>11</td>
<td>unnamed tributary of Stream 9</td>
<td>intermittent</td>
<td>2-4'</td>
<td>sand</td>
<td>stable, 3-4'</td>
<td>somewhat impaired</td>
</tr>
</tbody>
</table>
Federal Threatened and Endangered Species

Background information regarding known occurrences and potential occurrences of federally protected species was obtained from both the US Fish and Wildlife Service (USFWS) and the Georgia Department of Natural Resources (GA DNR) Natural Heritage Program web sites and from correspondence with the GA DNR Natural Heritage Program. Four federally threatened, endangered, and candidate species that occur or may occur in Fulton County according to the USFWS are listed in Table 2.

Table 2: Federally Listed Species in Fulton County, Georgia

<table>
<thead>
<tr>
<th>Federal Endangered and Threatened Species</th>
<th>Animals</th>
<th>Invertebrates</th>
<th>Plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bald Eagle</td>
<td>T, SE</td>
<td>Fish</td>
<td>Gaudium aster</td>
</tr>
<tr>
<td></td>
<td>Haliaeetus leucocephalus</td>
<td>Etheostoma scotti</td>
<td>Aster geogianus</td>
</tr>
<tr>
<td>Cherokee Darter</td>
<td>T, T</td>
<td>Invertebrates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E, E</td>
<td>Medionidus pencillatus</td>
<td></td>
</tr>
<tr>
<td>Shiny-rayed Pocketbook</td>
<td>E, E</td>
<td>Lampsilis subangulata</td>
<td></td>
</tr>
<tr>
<td>Georgia Aster</td>
<td>Candidate Species</td>
<td>Plants</td>
<td></td>
</tr>
</tbody>
</table>

E = federally endangered and T = federally threatened. The SE and ST indicate species also listed by the State of Georgia as endangered and threatened respectively. Updated June 2002.

The GA DNR Natural Heritage Program web site listed occurrences in Fulton County for the following federally protected species: Cherokee darter, shiny-rayed pocketbook, and gulf moccasinshell. In addition, one federal candidate species, Georgia aster, was listed in Fulton County.

The GA DNR Natural Heritage Program web site listed no known occurrences for federally protected species within the Northeast Atlanta and Northwest Atlanta, Georgia 7.5’ quadrangles. However, the GA DNR Natural Heritage Program web site did list known occurrences for the Georgia aster within the Northeast Atlanta, Georgia 7.5’ quadrangle.

A letter dated November 13, 2003 was sent to the GA DNR Natural Heritage Program requesting occurrence information for federally threatened and endangered species within three miles of the project location. The GA DNR Natural Heritage Program did not document any federally protected species within a three-mile radius of the project. However, the GA DNR Natural Heritage Program did document a known occurrence of one federal candidate species, Georgia aster, within a three-mile radius of the project. The known location of the Georgia aster is an imprecise location west of the project area.

No federally protected flora or fauna or suitable habitats were observed within the project corridor during the field surveys. It is anticipated that the proposed project would have no effect to any federally protected species. Critical habitat, as defined in the Endangered Species Act, is a term for habitat given special protection for the benefit of listed species. According to the USFWS, critical habitat is not designated for species listed in Fulton County.
Historic Resources

The requirements of Section 106 of the National Historic Preservation Act of 1966 and amendments thereto (NHPA) apply to the study area. The project was field surveyed for historic properties. The survey boundary and methodology were established using the Georgia Department of Transportation (GDOT)/Federal Highway Administration (FHWA) Cultural Resource Survey Guidelines.

There are 24 historic resources identified within the Northside Drive project's Area of Potential Effect (APE). Table 3 lists all historic resources within the area and the NRHP recommendation. These resources are shown in Figure 3. At this time, one resource is currently listed on the NRHP, 15 would be recommended eligible for listing on the NRHP, and eight would be recommended not eligible for the NRHP. The NRHP listed resource is the William and Ruth Knight Lustron House, a single-family residence located at 1976 Northside Drive. Of the recommended eligible resources, six are historic districts and nine are individual structures.

No National Historic Landmarks and no bridges determined eligible for inclusion in the National Register in the updated Georgia Historic Bridge Survey (GHBS) are located within the area. GDOT Bridge 121-000030-012.85N on Northside Drive over Peachtree Creek was constructed in 1926 and included in the GHBS, but was considered not eligible for inclusion.

Table 3: Historic Resources

<table>
<thead>
<tr>
<th>Resource Number</th>
<th>Name of Resource</th>
<th>Location</th>
<th>National Register Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Collier Hills Historic District</td>
<td></td>
<td>Eligible</td>
</tr>
<tr>
<td>2</td>
<td>Bobby Jones Golf Course and Clubhouse</td>
<td></td>
<td>Eligible</td>
</tr>
<tr>
<td>3</td>
<td>Haynes Manor Historic District</td>
<td></td>
<td>Eligible</td>
</tr>
<tr>
<td>4</td>
<td>565 West Wesley Road</td>
<td></td>
<td>Eligible</td>
</tr>
<tr>
<td>5</td>
<td>Argonne Forest Historic District</td>
<td></td>
<td>Eligible</td>
</tr>
<tr>
<td>6</td>
<td>Spiotta House</td>
<td>2980 Northside Drive</td>
<td>Not Eligible</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>2976 Northside Drive</td>
<td>Not Eligible</td>
</tr>
<tr>
<td>8</td>
<td>Fassnacht House</td>
<td>2895 Arden Drive</td>
<td>Eligible</td>
</tr>
<tr>
<td>9</td>
<td>Sheffield House</td>
<td>2869 Arden Drive</td>
<td>Eligible</td>
</tr>
<tr>
<td>10</td>
<td>Bond House</td>
<td>2865 Arden Drive</td>
<td>Eligible</td>
</tr>
<tr>
<td>11</td>
<td>Culver House</td>
<td>2855 Arden Drive</td>
<td>Eligible</td>
</tr>
<tr>
<td>12</td>
<td>Ellis House</td>
<td>2770 Northside Drive</td>
<td>Eligible</td>
</tr>
<tr>
<td>13</td>
<td>Woodfield Historic District</td>
<td></td>
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</tr>
<tr>
<td>14</td>
<td>Springlake Historic District</td>
<td></td>
<td>Eligible</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>630 Collier Drive</td>
<td>Not Eligible</td>
</tr>
<tr>
<td>16</td>
<td>620 Collier Drive</td>
<td></td>
<td>Eligible</td>
</tr>
<tr>
<td>17</td>
<td>N/A</td>
<td>1998 Northside Drive</td>
<td>Not Eligible</td>
</tr>
<tr>
<td>18</td>
<td>Knight Lustron House</td>
<td>1976 Northside Drive</td>
<td>Listed</td>
</tr>
<tr>
<td>19</td>
<td>Hughes House</td>
<td>1970 Northside Drive</td>
<td>Not Eligible</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>1962 Northside Drive</td>
<td>Eligible</td>
</tr>
<tr>
<td>21</td>
<td>Metz House</td>
<td>1956 Northside Drive</td>
<td>Not Eligible</td>
</tr>
<tr>
<td>22</td>
<td>Tailor House</td>
<td>1940 Northside Drive</td>
<td>Not Eligible</td>
</tr>
<tr>
<td>23</td>
<td>Northside Hills Historic District</td>
<td></td>
<td>Eligible</td>
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</table>

* The Northside United Methodist Church will become 50 years of age and possibly eligible in 2007.
** The Ahavath Achim Synagogue will become 50 years of age and possibly eligible in 2008.
PROJECT LOCATION AND HISTORIC RESOURCE MAP

NOT TO SCALE

FIGURE 3
Archaeological Resources

On November 24, 2003, a check of the Georgia Archaeological Site Files for this study area was conducted at the University of Georgia in Athens. A total of three previously identified archaeological sites are located within 0.5 miles of the existing Northside Drive right-of-way. These three sites are on or near Peachtree Creek, which flows roughly east-west near the midpoint of the study area.

**Site 9FU42** is south of Peachtree Battle Avenue and north of Peachtree Creek, just west of Northside Drive. A synagogue is reportedly at this location. The site was first reported in 1974 and the site files contain little information regarding its characteristics. Plain, eroded pottery was recovered, suggesting it could be a Woodland Period site. No NRHP recommendation is indicated on the site form. It appears likely that the site has been destroyed, but a field check would be necessary to confirm this.

**Site 9FU46** is on the north and south banks of Peachtree Creek, apparently on the east side of Northside Drive. No UTM’s are recorded on the site form, which is based on work completed in 1974. It is described as the site of the Civil War Battle of Peachtree Creek. A relatively large area is indicated on the topographic map at the site files, and the circle drawn to mark the site’s area crosses Northside Drive, but the accompanying map on the site form shows the site as extending to the east side of Northside, but not crossing the road. The form states that the site is “along Peachtree Creek on both sides from Northside Drive east to Tanyard Creek. It is on the Bobby Jones Golf Course of Atlanta Memorial Park.” This form also indicates that the site was bulldozed to construct the golf course. Artifacts reported include a piece of cut bone and shell fragments that are reportedly housed at Georgia State University. No NRHP recommendation is included on the site form. It appears likely that the site has been destroyed, but a field check would be necessary to confirm this.

**Site 9FU52** is located on the north bank of Peachtree Creek, east of Northside Drive. There is not much information recorded on the site form, which was reported in 1975. It is apparently the site of a prehistoric village of unknown affinity and time period. No NHPR recommendation is given for the site. A field check would be required to determine if the site is present in this area.

Community Facilities

The community facilities located within the study area include Northside High School, Northside United Methodist Church, and Ahavath Achim Synagogue. In addition, there are four publicly owned parks along Northside Drive—Atlanta Memorial Park (east and west sides of Northside Drive; east side includes Bobby Jones Golf Course, west side runs along Peachtree Creek), Channing Valley Park, Spring Lake and Norfleet Park, and Memorial Park Trail.

The existing sidewalks and pedestrian facilities along Northside Drive are also considered to be community facilities. There is an existing footbridge on the east side of Northside Drive from Woodward Way to Peachtree Battle Avenue and a sidewalk on the east side of Northside Drive from Peachtree Battle Avenue to Arden Road.
Map of Technology Square

- The Global Learning & Conference Center
- The Georgia Tech Hotel & Conference Center
- Technology Square Parking Deck
- Economic Development Institute
- DuPree College of Management
- ATDC/GATV (Fifth Street)
- Technology Square Research Building
<table>
<thead>
<tr>
<th>Nearby restaurants</th>
</tr>
</thead>
</table>
| **5th Street Ribs and Blues**  
5th Street  
Atlanta, GA 30308  
Summary: Barbeque Ribs, Chicken, and Pork |
| **Ami**  
817 West Peachtree St.  
Suite E125 (Cypress & Sixth St, behind Biltmore)  
Atlanta, GA 30308  
Phone: 404-815-9243  
Summary: Elegant sit-down French style flare |
| **Apache Cafe**  
64 3rd St NW  
Atlanta, GA 30308  
Phone: 404.876-5436  
Summary: Funky artist/performance cafe, Mexican fare, coffee |
| **Arby's**  
744 Spring Street  
Atlanta, GA 30308  
404-881-8535  
Summary: Fast food |
| **Arcade Cafe**  
817 W Peachtree St NW #A105 (at Biltmore Hotel)  
Atlanta, GA 30308-1147  
Summary: Southern Cuisine; Sandwiches and Salad Bar |
| **Atlanta Coney Island**  
759 West Peachtree Street  
Suite 107  
Atlanta, GA, 30306  
404-872-9395  
Summary: Hot Dogs, Burgers, Gyros, Salads, Sandwiches, and Breakfast |
| **Balance**  
980 Piedmont Ave. N.E., at 10th Street  
Atlanta, GA, 30309-4109  
404-870-9881  
Summary: Eclectic Cuisine with a Healthy Edge |
| **Bubble Tea and Smoothies**  
5th Street  
Atlanta, GA 30308  
Summary: Bubble Tea and Smoothies |
| **Checkers (Drive-In)**  
989 Spring St NW  
Atlanta GA 30309-3821  
Phone: 404-892-7717  
Summary: Burgers, Fries, Colas (Fast Food) |
| **Cafe Pharr Out**  
759 West Peachtree Street  
Atlanta GA 30308  
Phone: 404-347-8005  
Summary: Sandwiches and Hot Meals, Specializing in Chicken Salad |
| **City Cafe Diner**  
525 10th St., N.W.  
Atlanta, GA 30318  
404-873-6074  
Summary: Diner with HUGE menu |
| **Domino's Pizza**  
44 10th Street  
Atlanta, GA 30309  
Phone: 404-872-3000  
Summary: Pizza, Wings, Chicken Kickers |
| **Einstein's**  
1077 Juniper St.  
Atlanta, GA 30309  
404-875-6634  
Summary: American |
| **The Flying Biscuit Cafe**  
1001 Piedmont Avenue  
Atlanta, GA 30309  
404-874-8887  
Summary: Vegetarian Breakfasts and Lunches |
| **Gordon Biersch Brewery & Restaurant**  
848 Peachtree St. at 7th Street  
Atlanta, GA, 30308-1202  
404-870-0805  
Summary: Brewery with mid-priced food |
| **Great Wraps Coming soon!**  
5th Street  
Atlanta, GA 30308  
Summary: Gyros and Wrap Sandwiches |
| **Jock's & Jill's**  
112 10th St., N.E.  
Atlanta, GA 30309  
404-873-5405  
Summary: American sports bar and restaurant |
| **Joe's On Juniper**  
1049 Juniper St., N.E.  
Atlanta, GA 30309  
404: 875-6634  
Summary: American |
| **Lil' Dino Subs**  
537 10th St., N.W.  
Atlanta, GA 30318  
404-873-1677  
Summary: Sub shop |
| **McDonald's**  
1105 Northside Dr., N.W.  
Atlanta, GA 30318  
404-876-6766  
Summary: Fast food |
| **Marble Slab Creamery**  
5th Street  
Atlanta, GA 30308  
Summary: Gourmet Ice Cream and Frozen Yogurt |
| **Moe's Southwestern Grill**  
5th Street  
Atlanta, GA 30308  
Summary: Southwestern Burritos, Tacos, Nachos, etc. with "atmosphere" |
| **Nickiemo's Midtown**  
990 Piedmont Ave., N.E.  
Atlanta, GA 30309-4109  
404-253-2010  
Summary: Japanese |
| **Papa John's Pizza**  
990 State St., N.W.  
Atlanta, GA 30318  
404-872-5252  
Summary: Pizza |
<table>
<thead>
<tr>
<th>Restaurant</th>
<th>Address</th>
<th>Phone</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philly Connection</td>
<td>759 W. Peachtree Street (BellSouth Food Court)</td>
<td>404-817-3773</td>
<td>Philly Cheesesteak Sandwiches</td>
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<tr>
<td>Rocky Mountain Pizza Company</td>
<td>1005 Hemphill Ave., N.W. Atlanta, GA 30318</td>
<td>404-876-8600</td>
<td>Pizza</td>
</tr>
<tr>
<td>St. Charles Deli</td>
<td>5th Street Atlanta, GA 30308</td>
<td></td>
<td>Sandwiches and Burgers, deli-style</td>
</tr>
<tr>
<td>Starbucks</td>
<td>inside Barnes &amp; Noble Corner of 5th and Spring Streets Atlanta, GA 30308</td>
<td></td>
<td>Coffees, Lattes, etc.</td>
</tr>
<tr>
<td>Tin Drum Asia Cafe</td>
<td>5th Street Atlanta, GA 30308</td>
<td></td>
<td>Thai; Vietnamese</td>
</tr>
<tr>
<td>Touch of India</td>
<td>1037 Peachtree St N.E Atlanta, GA 30308</td>
<td>404-876-7777</td>
<td>Indian</td>
</tr>
<tr>
<td>The Varsity</td>
<td>61 North Ave. Atlanta, GA 30308</td>
<td>404-881-1706</td>
<td>Famous Atlanta fast food / diner</td>
</tr>
<tr>
<td>Vortex Bar &amp; Grill</td>
<td>878 Peachtree St., N.E. between 7th &amp; 8th Streets Atlanta, GA, 30309</td>
<td>404-875-1667</td>
<td>Casual bar known for great hamburgers</td>
</tr>
<tr>
<td>Zocalo</td>
<td>187 10th St., N.E. at Piedmont Rd. Atlanta, GA, 30309-4050</td>
<td>404-249-7576</td>
<td>Sit-down Mexican</td>
</tr>
</tbody>
</table>