Enhancing Transportation: The Effects of Public Involvement in Planning and Design Processes
This research examines the nature and effects of inclusive and effective participation in the planning and design of transportation facilities. The study develops a common base of information to guide the development and organization of planning and design processes for transportation facilities and provide a consistent methodology for evaluating process outcomes. The study places a particular focus on the criteria for effective participation, techniques used to engage the public, as well as the implications of public involvement on type, location, design, and program for transportation projects. In addition, the research identifies broader community benefits associated with effective participation processes. The study includes an additional focus on understanding the role of professional design experts in participatory processes. Six transportation project case studies are examined, pointing to a number of lessons to be considered by designers, agencies, and the public. The study concludes with best practices for public involvement in planning and design processes for transportation projects.
Enhancing Transportation: The Effects of Public Involvement in Planning and Design Processes

Report #5 in the series: Moving Communities Forward

Final Report

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Preface

Well-designed transportation projects demonstrate the potential to shape a community in ways that go far beyond the project’s original purposes. Anecdotal evidence and advocacy exist on behalf of the benefits of well-designed transportation projects on communities, yet there is little organized quantifiable or qualitative data, nor is there a comprehensive guide for communities to maximize or integrate the diverse benefits that well-designed transportation projects can bring.

Recognizing this lack of data about the role of design in transportation, Congress authorized a study in Section 1925 of the 2005 Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) to achieve two goals: (1) begin to measure how well-designed transportation projects can bring multiple enhancements to communities in terms of economic development, health and the environment, visual identity and design, public participation, and public safety; and (2) provide communities, designers, transportation officials, and policymakers a set of principles and practices to adapt to their unique situations and needs.

The *Moving Communities Forward* research team employed a case study-based approach, analyzing nearly 30 transportation projects that represent a broad spectrum of regions, demographics, and project types. The research team identified key principles and practices that designers and others can use—in the context of their unique situation and environment—to realize multiple enhancements to their communities.

Funding for the study was derived from a grant to the American Institute of Architects (AIA) from the Federal Highway Administration (FHWA), authorized by Congress in SAFETEA-LU. In 2006, the AIA selected the Center for Transportation Studies (CTS) at the University of Minnesota to conduct the pioneering research study.

To address the interdisciplinary issues raised by the study, CTS assembled a research team drawn from multiple fields. Research was allocated to five research projects: a sixth project synthesized the study's key findings into a single document highlighting major themes and recommendations:

1. Promoting Economic Development
2. Improving Health and the Environment
3. Designing Great Places
4. Fostering Civic Participation
5. Making Communities Safer
6. Study Synthesis

Results of this research are available in a series of reports on the *Moving Communities Forward* Web site: www.movingcommunitiesforward.org. The site also includes a summary report submitted by the FHWA to Congress in September 2007. The Web site is part of a coordinated outreach effort designed to share the research findings and recommended practices with transportation and design professionals, policymakers, and the public.
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The American Institute of Architects (www.aia.org) is the voice of the architectural profession and the resource for its members in service to society. As AIA members, more than 80,000 licensed architects in over 300 state and local chapters express their commitment to excellence in design and livability in our nation's buildings and communities. Members adhere to a code of ethics and professional conduct that assures the client, the public, and colleagues of an AIA-member architect's dedication to the highest standards in professional practice.

ABOUT THE CENTER FOR TRANSPORTATION STUDIES

The Center for Transportation Studies' (www.cts.umn.edu) mission is to serve as a catalyst for transportation innovation through research, education, and outreach. CTS works with University of Minnesota faculty in over 25 disciplines to advance knowledge in a variety of transportation-related research areas. In 1997, CTS first became involved with transportation and urban design issues in its leadership of a major interdisciplinary effort, the Transportation and Regional Growth Study, which produced new understandings of the relationship between transportation and growth in the Twin Cities area. CTS has also worked closely with the Minnesota Department of Transportation and local governments in advancing Context Sensitive Design/Solutions practices through the development of training courses and web resources, which have helped Minnesota to be recognized by FHWA and AASHTO as a leading state in applying Context Sensitive Design/Solutions.
Transit oriented redevelopment near the University of Washington’s satellite campus in downtown Tacoma.
Credits

Carissa Schively, Project Director and Principal Investigator

with

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Work on this report in the Humphrey Institute of Public Affairs at the University of Minnesota was coordinated by Carissa Schively, project director and principal investigator. She drafted the report, visited five of the sites, conducted interviews for three of the case studies, and took most of the photographs. Research assistance was provided by Meagan Beekman, Cynthia Carlson, and Jenn Reed. Each provided background research related to the case studies, completed a site visit, and conducted interviews for one of the cases. Additional assistance was provided by Jenn Reed related to the literature review and report layout.

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Narrow street in Philadelphia’s Old City neighborhood.
Waterfront pedestrian amenities and public art in Vancouver, British Columbia.
Executive Summary

Overview
This research examines the nature and effects of inclusive and effective participation in the planning and design of transportation facilities. While there is general agreement about the importance of participation in planning processes (Burby 2003, Bickerstaff and Walker 2001, Innes 1992), including transportation planning, there is little consistency in its application or its effects. This research attempts to develop a common base of information to guide the development and organization of planning and design processes for transportation facilities and provide a consistent methodology for evaluating process outcomes. The study outcomes include best practices for public involvement in planning and design processes for transportation projects.

The study places a particular focus on the criteria for effective participation, techniques used to engage the public, as well as the implications of public involvement on type, location, design, and program for transportation projects. In addition, the research identifies broader community benefits associated with effective participation processes. The study includes an additional focus on understanding the role of professional design experts in the participatory processes. Six transportation project case studies are examined, pointing to a number of lessons to be considered by designers, agencies, and the public.

Key Findings
The transportation projects considered in this study provide important insights into what is required for effective participation to be achieved in transportation planning and design processes. These criteria, further discussed in the practices section below, highlight important considerations for those planning and design processes:

- Using multiple methods of participation throughout the transportation planning and design process;
- Identifying a local champion or advocate to lead the project vision and organize participants;
- Ensuring a clear sense of the desired outcome, whether informed by previous planning efforts or current participants;
• Providing political leadership to initiate institutional changes and address public opposition;
• Selectively using professional design experts to supplement local knowledge; and
• Employing visualization techniques to educate participants and instill a vision for the future.

Rather than functioning as prescription, the practices or criteria identified here might be considered as components in a framework that can help local decision-makers assess the context in which the transportation project will be developed.

At the same time, the cases examined in this study illustrate the range of benefits that can be achieved by engaging the public in planning and design processes for transportation projects. These benefits are captured by members of the public as they gain knowledge and expertise that they can take away from the participation process. Benefits are also gained by the broader community as it gains credibility and pride in its accomplishments. For example, with its innovative approach to traffic calming, West Palm Beach became a national model for streetscape design and pedestrian planning. The Emerson Park neighborhood gained a reputation for being organized and capable, overcoming the limitations of the East St. Louis political system and rallying a struggling neighborhood around a common goal of transportation access and redevelopment. In Arlington County, the Clarendon sector planning process drew together the varying perspectives from the community’s vast civic infrastructure in a process. This participatory planning effort facilitated a community conversation about what is unique about the community and refine its evolving conception of what it means to be an “urban village.”

The benefits of public involvement also are reflected in the design of the transportation projects. In each of the cases examined in the study, the participants influenced the design outcomes. While in some cases the initial project design or the original community vision was altered, in each case, the process of engaging around the design and planning of a transportation project brought the community together. One of the most compelling findings in these cases is how in each project, those involved challenged conventional approaches to transportation planning and design. To allow this challenge to be successful, it was essential that public involvement, and in some cases community organizing, occur. In the Barracks Row project, community involvement led to a streetscape design that revitalized a commercial corridor that meets that meets the needs and reflects the diverse perspectives of those in surrounding neighborhoods. For the Bridgeport Way project, public involvement resulted in scaling back an initial proposed
design, but ultimately brought the community together in agreement on important safety and amenity features on University Way’s “Main Street.” In West Palm Beach, early public interest in neighborhood traffic calming helped to institutionalize alternative street design approaches in the City, which continued forward in larger projects on state highways, and in downtown and major redevelopment projects. With the Clarendon station area planning process, a sophisticated and highly engaged public helped the City move forward in refining its vision for development and redevelopment, pointing to specific criteria for both public spaces and private development in the station area. In the Emerson Park neighborhood, extensive public involvement led to the relocation of a proposed transit station and construction of new housing, setting the stage for ongoing redevelopment in a struggling neighborhood. Finally, in the Fruitvale case, a neighborhood organization tapped into one of its most important assets, the community, to achieve an alternative approach to transit oriented development (TOD) that has informed transit agencies, designers, planners, and developers across the nation.

Research Approach and Measures
This study is informed by previous research on the criteria and outcomes of effective participation in planning and design processes. The literature points to criteria related to the organization and structure of the participatory aspects of the planning and design process, the timing of participation efforts, the overall level of participation, participation methods (e.g. steering committee, public hearing), types of participants, and use of communication efforts. Some of the criteria for effective participation identified include:

- Use visualization methods (Al-Kodmany 2000);
- Include a wide variety of stakeholders (Lowry et al. 1997);
- Support participants with information and access to expert knowledge (Innes and Booher 2004);
- Promote consensus-based decision-making processes when appropriate (Margerum 1999);
- Create an open environment that is safe for ongoing deliberation (Forester 1998); and
- Provide multiple methods of participation (IAP2), including informal methods (Laurian 2004).

In addition, the outcomes of participation, discussed widely in the literature, also were addressed. Outcomes relate to decision-making processes, organizations, individuals, communities, and
projects. Those outcomes of greatest interest in this study were the physical design of the
transportation project and associated development and the broader social impacts at the individual
and community level. The outcomes of participation identified in previous research include:

- Sensitive design solutions (Crewe 2001);
- Agreement on a shared definition of the problem (Lowry et al. 1997);
- Builds framework and organizing capacity to facilitate ongoing solutions (Duram and
  Brown 1999, Tuler and Webler 1999);
- Support for implementation (Burby 2003);
- Shared knowledge (Innes and Booher 1999, Innes and Gruber 2005).

The criteria and outcomes described above were evaluated using a case study method, in which
public involvement in the planning and design processes for six transportation projects was
documented. The measures of effective participation were operationalized in a series of questions
delivered through interviews of key participants in each of the cases. Interviewees included
both those managing the participation processes and participants themselves, with an intent to
capture the broadest range of perspectives on the conduct and outcomes of the planning and
design process. Elected and appointed officials, representatives from relevant agencies and non-
governmental organizations, and the general public were among those interviewed. Professional
architects, planners, landscape architects, and engineers also were included in the study.

**Cases**
The criteria and outcomes of effective participation were evaluated in the context of six
transportation project cases. These cases were selected from two contexts: TOD and context
sensitive solutions (CSS). The cases were selected to achieve a wide variation in terms of
geographic location, neighborhood context, site conditions, and issues (e.g. transportation,
planning, and design). For the CSS cases, there was an intentional focus on identifying cases
at a variety of scales. For the TOD cases, there was intention to identify cases that had varied
participants and neighborhood characteristics.

**TOD Cases**

*Emerson Park Station Area, East Saint Louis, IL*
The Emerson Park station area is part of the St. Louis region’s MetroLink rail system. The
station was developed in 2001, with significant intervention by the Emerson Park Development
Corporation (EPDC) following a rail line extension announced in 1994. This non-profit organization had been active in the Emerson Park neighborhood since the 1970s and worked extensively with the neighborhood prior to the extension to develop a community plan and vision. The neighborhood of Emerson Park has very low levels of employment, income, housing, values, and transit access. The initially proposed rail alignment was inaccessible for neighborhood residents, separated by a major highway. The EPDC played a crucial role in lobbying MetroLink, St. Clair County Transit Authority, and the City of East St. Louis to relocate the proposed station. To support this lobbying effort and preliminary station area planning, the EPCD organized extensive community participation, worked with planning and design students from the University of Illinois at Urbana-Champaign, and staged protests. They also coordinated with an experienced affordable housing developer to facilitate the station area plan and nearby TOD which included 147 units of mixed-income housing, the first to be built in the neighborhood.
in over 30 years. As a direct result of this participation effort the EPDC has received a great deal of notoriety and has been able to leverage this into additional grant money and funding for the neighborhood, build a community charter school, and provide the neighborhood of Emerson Park with much needed infrastructure improvements and social capital.

**Clarendon Station Area, Arlington County, VA**
The Clarendon station area in Arlington County is part of the Washington, DC region’s Metrorail system. The station is located on the orange line in the Rosslyn-Ballston corridor, in a largely white, highly educated, and relatively high income area. The area is surrounded by a number of older single-family neighborhoods, but the area has seen an increase in higher density development. The station area has evolved since the rail system opened in the 1970s, with an increasing number of businesses and residential units in recent years. The research focused on the most recent planning process for the area, the 2006 Clarendon Sector Plan Update. Participation in this process was extensive, reflective of the mature governmental structure and institutionalization of a wide range of county advisory committees, including the Clarendon Sector Plan Task Force. Key issues addressed in the participatory process include increased residential densities, parking, historic preservation, streetscape design, traffic circulation, and multi-modal facilities.
Fruitvale Transit Village, Oakland, CA
The Fruitvale Transit Village project is located at the Fruitvale station on the Bay Area Rapid Transit (BART) rail system in Oakland. Originally proposed as a parking garage near an existing BART station in 1991, through the work of a neighborhood-based non-profit community development corporation the project became one of the earliest examples of TOD in the U.S. The planning and design of the transit village, including a mix of housing, commercial, office, and service uses, was led by the Unity Council which has worked in the largely Latino Fruitvale neighborhood for over 40 years. The Unity Council’s strong connection to neighborhood residents and businesses was essential in organizing the public around the proposed alternative to the parking garage. To facilitate development of the transit village, the Unity Council established the Fruitvale Development Corporation, which gained control of the site in 1998. Through extensive

Left: Service uses, including La Clinica de la Raza, provide anchors for the project and address the needs of local residents. Other service uses include a day care, senior center, library, and office for the Unity Council. Right: The Fruitvale Transit Village features a pedestrian oriented environment with a central paseo connecting the transit station to the adjacent neighborhood. The paseo serves as a gathering space for community events and an access route between the neighborhood and the Fruitvale BART station.
Angled parking in a portion of the six-block Barracks Row was pursued by the Barracks Row Main Street organization to accommodate more parking for businesses. It also provides a buffer between pedestrians on cars traveling on Eighth Street SE. Banners advertise the Shakespeare Festival, an important cultural activity in the neighborhood, that helped spur redevelopment.

collaboration with BART, the City of Oakland, the Federal Transit Administration (FTA) and several community service providers including La Clinica de la Raza and the Oakland Public Library, the Fruitvale Development Corporation was able to secure the resources and institutions necessary to move the project forward. The final project represents the design character of the neighborhood and has stimulated further revitalization in the Fruitvale neighborhood.

**CSS Cases**

*Barracks Row, Washington, DC*

The Barracks Row project is a six block streetscape redesign project on Eighth Street SE in the Capitol Hill Historic District in Washington, DC. The street includes a number of historic buildings, a mix of businesses, and the U.S. Marine Barracks. The project area is one block from the Eastern Market station on the Washington DC Metrorail system. The surrounding neighborhood includes a large number of residential units of varying values, with 57 percent white and 38 percent black population. The streetscape redesign was funded in part by the
The Tour of Duty: Barracks Row Heritage Trail runs through the project area. Signs along the route document the history of the Barracks Row area and contribute to the character of the streetscape. The trail is a project of Cultural Tourism DC and was completed in coordination with Barracks Row Main Streets and the Capitol Hill Restoration Society.

DC Main Streets program and led by the Barracks Row Main Street Association and DC Department of Transportation. Participation occurred throughout the planning and design process, from early visioning efforts through design implementation and construction. The collaboration between agency staff, private consultants, Marines and Navy staff, business owners, and public participants produced a streetscape redesign that accommodates the needs of pedestrians and vehicles and has revitalized the Barracks Row area.

Bridgeport Way, University Place, WA
This 1.5 mile highway redesign project, located in a suburban community in the Seattle-Tacoma region, involved a roadway improvement from a five-lane rural section

Multi-modal improvements were added throughout the Bridgeport Way corridor.
highway to a four-lane divided highway. Participation efforts were led by the newly incorporated City of University Place. The City also hired nationally recognized design consultants, focused on walkability and streetscape design, to introduce alternative street design concepts including roundabouts, landscaping, and multi-modal considerations. The consultants used numerous visualization techniques to illustrate alternative roadway designs. The ultimate design evolved from an initial proposal as a result of public and business concerns about the four proposed

On Bridgeport Way, two mid-block crossings are provided in high traffic areas near an existing commercial area and a planned town center in University Place.
roundabouts, business access, and right-of-way acquisition. Extensive participation occurred through charrettes, public and stakeholders meetings. A compromise design removed the roundabouts and adjusted the alignment of intersections to allow for U-turns for business access, but retained extensive use of landscaping, central medians, two mid-block crossings, and pedestrian and bicycle enhancements.

Citywide Traffic Calming, West Palm Beach, FL
Faced with high crime rates and a loss of residents to adjacent suburbs, the City of West Palm Beach undertook traffic calming efforts throughout the city. Led by an ambitious mayor who hired a traffic calming expert to lead the City’s Transportation Planning Division, the City government implemented various traffic calming efforts throughout the city’s neighborhoods, downtown, and major arterials. Participation varied by context, but a significant focus was placed on working with neighborhoods that requested traffic calming to address issues of high speeds, cut-through traffic, and safety. Participation in these projects often included City
staff meeting with residents on the street, examining possible alignments and amenities to be constructed. The City also worked with County and State transportation staff to incorporate traffic calming on major roadways in the city. Traffic calming also was facilitated through the Downtown Master Plan and a development master planning process for the new CityPlace redevelopment project, which involved significant involvement from businesses and property owners.

Practices
Extensive research into the cases identified above, coupled with the results of the interviews with a wide range of participants in each of the projects, points to some important best practices that might be considered by designers, planners, engineers, and others involved in transportation project planning. These best practices encompass many of the criteria and outcomes of effective participation identified in the early part of the study. The best practices provide information about how to organize participation, who should be involved, understanding the purpose of participation, and engaging with design experts. As a means of illustrating the varied applications of the best practices in the transportation cases studied, key highlights from the case details are provided.

Multiple Methods of Participation
Each of the cases considered in the study used a range of different types of participation techniques. These techniques were employed at various points during the planning and design process. In one case, Barracks Row, participation efforts even continued throughout the construction process with meetings of stakeholders occurring bi-weekly in the corridor. In addition to traditional public meetings or hearings, varied participation techniques were used to reach diverse interests at different points during the participation process. For example, in the Emerson Park neighborhood, groups conducted “knock and talks” to engage participants around the topic of relocating the transit station location and its potential effects on the community. In the planning and design process for Bridgeport Way, the City of University Place worked with consultants on a design charrette for the roadway and involved students from the local high school in the process. For the Fruitvale Transit Village project, the Unity Council did extensive outreach to key organizations in the community, met with individuals and businesses, and even engaged the local gangs in the design process. In Arlington County, the Clarendon Sector Plan Task Force represented a wide range of community interests.
Local Champion

In many of the cases examined in the study, the presence of a local champion, whether an organization or individual, was essential in leading the project forward. These champions maintained interest in the project, organized additional participants, secured funding, addressed political challenges, and coordinated with decision-making authorities. For example, in the Fruitvale Transit Village case, the interviews continually pointed to the Executive Director of the Unity Council at the time as being integral to success. Her history and connections in the community, her political connections in the local and federal government, her ability to work with agencies and service providers to secure funding for the project, and her commitment to achieving an outcome that met the needs of the community were essential to the success of the project. In the City of West Palm Beach, the mayor in the mid-1990s was central in leading the traffic calming effort. Inspired by a presentation on traffic calming that she heard at a conference, she hired the presenter to head the City’s newly established Transportation Planning division. She provided political support for City staff to implement a wide range of traffic calming efforts across the community, paying significant attention to requests from neighborhoods desiring traffic calming. The mayor even worked with a U.S. House of Representatives member to lobby Congress to allow Intermodal Surface Transportation Efficiency Act (ISTEA) funds to be used for traffic calming.

Clear Sense of the Desired Outcome

A characteristic seen across many of the cases examined in the study was a clear focus on the desired outcomes of the transportation planning and design process. While in general, compromises on small design details often occurred through participatory processes, these projects were often successful because the participants had a clear sense of the most important outcomes that they wanted to see. For example, in the Emerson Park neighborhood, the EPDC’s previous community planning efforts helped them recognize the impacts of a light rail extension in the neighborhood. While they compromised on some details related to station design and pedestrian access, the neighborhood held to its position that the station be moved and key neighborhood streets remain open. The Fruitvale Transit Village is a similar case, with the Unity Council working diligently with the community to challenge the proposed parking garage and take over major responsibility for planning and designing the transit village. In doing so, they ensured that the TOD project met the needs of residents, promoted efficient transportation access, provided opportunities for business, and included community service providers (e.g. clinic, senior center, library) in the project.
Political Leadership

In most of the cases examined in the study, political leadership became essential during at least one phase of the planning and design process for the transportation project. Participants worked with relevant political leaders to achieve key project goals or were led in their planning and design vision by elected officials. As previously discussed, in the West Palm Beach and Fruitvale Transit Village cases, the political connections held by project champions helped move the projects forward. In the Bridgeport Way case, the political leadership of the City Council in the face of staunch public opposition provided a test of the newly incorporated City’s will to push the standards of roadway design in the community. In the Clarendon Sector Plan process, the Arlington County Board exhibited leadership in a different manner. By delegating significant authority to the Sector Plan Task Force, the Board gave up some of its authority and allowed representatives of the highly engaged community to lead the planning process. Only reluctantly, when consensus could not be reached within the task force, did the Board step in to facilitate completion of the final details of the plan.

Professional Design Expertise

In nearly all of the cases studied, the planning and design processes included the use of professionals with design expertise. These design experts played important roles in engaging the public in planning and design processes and communicating about alternative design outcomes. In the Barracks Row project, landscape architects and traffic consultants built on an early community vision for the streetscape, to produce a project that met the needs of automobiles and pedestrians, as well as the various agencies and organizations involved. In West Palm Beach, the mayor hired a traffic calming expert to lead implementation of alternative street design citywide. In the Fruitvale Transit Village project, an early charrette, which included a number of invited design firms, produced a preliminary design that was refined and implemented by an architecture firm selected from the charrette process. In the Emerson Park project, design expertise was provided to the neighborhood by planning and design students through the University of Illinois’ East St. Louis Action Research Project (ESLARP). For the Bridgeport Way project, pedestrian planning consultants, changed the perspectives of staff, elected officials, and the public about roadway design options for the corridor.
In this excerpt from the West Palm Beach Downtown Master Plan, planning and design experts involved in preparing the Downtown Master Plan provided images to illustrate design alternatives for the urban streetscape, providing a more pedestrian friendly environment, extensive landscaping, buffered on-street parking, and human-scaled lighting. (Image source: City of West Palm Beach)
Visualization
The use of visualization in public involvement efforts took many forms in the cases examined in the study, often being utilized by the professional designers engaged in the project. Visualization efforts helped articulate alternative design visions, convince project opponents, and lend

Visualization of proposed enhancements on Bridgeport Way in University Place, WA, was key to allowing participants to understand how existing conditions (as shown in the photo above) could be modified to include the landscaped median and boulevards, multi-modal enhancements, lighting, and roadway alignment. These features are illustrated in the lower photo through computer generated visualization. (Photo source: City of University Place)
credibility to community preferences for transportation project design. For example, visualization efforts that included altered photographs showed design scenarios for the Bridgeport Way project. In addition, the pedestrian planning consultants utilized images from other communities to illustrate design options for the community, including the proposed roundabouts. In the Emerson Park station area planning process, proposed designs for the station and surrounding development provided by the ESLARP students gave the EPDC credibility when it approached the transit agencies about moving the station. In the Clarendon sector planning process, one of the public participants was a key contributor. Using photos of the station area, he altered them to include buildings and other features to illustrate proposed plan content. Because of the extensive implementation of traffic calming throughout the city, in West Palm Beach, visualization efforts often involved visiting alternative street design approaches used in other parts of the city.

Summary
While the best practices identified above provide a number of suggested approaches for achieving effective public involvement in planning and design processes for transportation projects, it is important to remember that there is not a prescription for public involvement that can be applied in every case. Each of the projects examined in this study was incredibly unique. In large measure, what made these projects and their public involvement successful was that those facilitating the processes were cognizant of local conditions. They understood local politics, engaged key stakeholders, brought in design experts to supplement local knowledge, and were creative in tailoring the design solutions to the site and neighborhood context. Without the public’s input, including participants who both challenged and supported the projects, the outcomes identified above would not have been the same.
Heavily used pedestrian environment in Millenium Park in Chicago.
Part One: Overview
Overview

Introduction
This research examines the nature and effects of inclusive and effective participation in the planning and design of transportation facilities. While there is general agreement about the importance of participation in planning processes (Burby 2003, Bickerstaff and Walker 2001, Innes 1992), including transportation planning, there is little consistency in its application or its effects. This research attempts to develop a common base of information to guide the development and organization of planning and design processes for transportation facilities and provides a consistent methodology for evaluating process outcomes. The study outcomes include best practices for public involvement in planning and design processes for transportation projects.

The study places a particular focus on the criteria for effective participation, techniques used to engage the public, as well as the implications of public involvement on type, location, design, and program for transportation projects. In addition, the research identifies broader community benefits associated with effective participation processes. The study includes an additional focus on understanding the role of professional design experts in the participatory processes. Six transportation project case studies are examined. The analysis points to a number of lessons for designers, agencies, and the public to consider. In addition to providing detailed summaries and analyses of the cases, the study also includes a large number of images related to these and other similar transportation projects.

Summary of Key Findings
The transportation projects considered in this study provide important insights into what is required for effective participation to be achieved in transportation planning and design processes. These criteria, further discussed in the practices section, highlight important considerations for those organizing planning and design processes:

- Using multiple methods of participation throughout the transportation planning and design process;
- Identifying a local champion or advocate to lead the project vision and organize participants;
• Ensuring a clear sense of the desired outcome, whether informed by previous planning efforts or current participants;
• Providing political leadership to initiate institutional changes and address public opposition;
• Selectively using professional design experts to supplement local knowledge; and
• Employing visualization techniques to educate participants and instill a vision for the future.

Rather than functioning as prescription, the practices or criteria identified here might be considered as components in a framework that can help local decision-makers assess the context in which the transportation project will be developed.

At the same time, the cases examined in this study illustrate the range of benefits that can be achieved by engaging the public in planning and design processes for transportation projects. These benefits are captured by members of the public as they gain knowledge and expertise that they can take away from the participation process. Benefits are also gained by the broader community as it gains credibility and pride in its accomplishments. For example, with its innovative approach to traffic calming, West Palm Beach became a national model for streetscape design and pedestrian planning. The Emerson Park neighborhood gained a reputation for being organized and capable, overcoming the limitations of the East St. Louis political system and rallying a struggling neighborhood around a common goal of transportation access and redevelopment. In Arlington County, the Clarendon sector planning process drew together the varying perspectives from the community’s vast civic infrastructure in a process. This participatory planning effort facilitated a community conversation about what is unique about the community and refine its evolving conception of what it means to be an “urban village.”

The benefits of public involvement also are reflected in the design of the transportation projects. In each of the cases examined in the study, the participants influenced the design outcomes. While in some cases the initial project design or the original community vision was altered, in each case, the process of engaging around the design and planning of a transportation project brought the community together. One of the most compelling findings in these cases is how in each project, those involved challenged conventional approaches to transportation planning and design. To allow this challenge to be successful, it was essential that public involvement, and in some cases community organizing, occur. In the Barracks Row project, community involvement led to a streetscape design that revitalized a commercial corridor that serves the needs and reflects
the diverse perspectives of those in surrounding neighborhoods. For the Bridgeport Way project, public involvement resulted in scaling back an initial proposed design, but ultimately brought the community together in agreement on important safety and amenity features on University Way’s “Main Street.” In West Palm Beach, early public interest in neighborhood traffic calming helped to institutionalize alternative street design approaches in the City, which continued forward in larger projects on state highways, and in downtown and major redevelopment projects. With the Clarendon station area planning process, a sophisticated and highly engaged public helped the City move forward in refining its vision for development and redevelopment, pointing to specific criteria for both public spaces and private development in the station area. In the Emerson Park neighborhood, extensive public involvement led to the relocation of a proposed transit station and construction of new housing, setting the stage for ongoing redevelopment in a struggling neighborhood. Finally, in the Fruitvale case, a neighborhood organization tapped into one of its most important assets, the community, to achieve an alternative approach to transit oriented development (TOD) that has informed transit agencies, designers, planners, and developers across the nation.

Report Outline

The brief summary of key findings receives significant elaboration in the study to follow. Following this introduction, the document turns to a discussion of previous research related to public involvement in transportation planning and other planning and design contexts. The third chapter draws on this previous research, developing a methodology for examining public involvement in a series of six case studies. This chapter also provides useful background information related to the contexts for these cases, TOD and context sensitive solutions (CSS). The next chapter provides details about each of the selected cases, highlighting the physical design features, but also paying substantial attention to the planning and design process, with a particular emphasis on the role of the public and other stakeholders. Finally, the report concludes with a discussion of the major findings of the study. The findings are drawn from the cases examined in the study and are presented as best practices. The practices provide specific recommendations for how to organize and manage participatory processes and noting the outcomes of effective implementation of these approaches.
Pedestrian crossing at busy intersection near city hall in Oakland, California.
Part Two: Measuring Effective Participation
Measuring Effective Participation

Overview

What contributes to the effectiveness of participation and what can we expect when participation works well? This study is concerned with answering these two important questions, examining both the criteria and outcomes of effective participation in planning and design processes for transportation projects.

One of the challenges with this research task is that effective participation can be difficult to quantify. The term “effective” can be relatively subjective, with varying perspectives among different participants. Further, effectiveness can be measured by considering a number of variables. For example, holding a large number of meetings or getting a large number of people to participate does not necessarily equate to effective participation. Further, the outcomes of effective participation are often experienced at a number of scales, from the individual, to the neighborhood and community. In terms of planning and design processes, participation can have an impact on the organization of the planning process, plan content, and the physical design of a project.

This section addresses these issues, by examining participation in the context of transportation planning and design processes. Considering both agency guidance and research on participation in transportation, the section highlights the challenges and opportunities for public involvement in this context. In addition, the section looks more broadly to the general participation literature to identify the range of indicators and outcomes of effective participation.

Participation in Transportation Planning

The history of participation efforts in transportation shows a significant evolution in approach. Among the most notorious are transportation agency efforts to construct the U.S. interstate highway system. Failure to consult with affected communities, division of established neighborhoods, and inequitable impacts on low-income and minority neighborhoods are well
documented (see Bayor 1998, Connerly 2002, Gale 1999, Jacobs 1961, Mohl 2004). Further, negative impacts from transportation projects on the natural environment and historic and cultural resources were often significant.

One event that addressed some of these concerns was the passage of the National Environmental Policy Act (NEPA) in 1969. The Act institutionalized public and agency involvement in the environmental impact analysis process for federally funded projects, including roadways (Bass et al. 2001, Jain et al. 2001). Further, guidance related to federal agency interaction with minority and low-income populations was provided in Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations in 1994 (Clinton 1994). The order provided specific guidelines related to public involvement and public access to information including ensuring that public documents, notices, and hearings related to the environment or human health are “concise, understandable, and readily accessible to the public” and that they be translated for limited English speaking populations (Clinton 1994).

Federal transportation agencies and state departments of transportation began providing specific guidance related to how to engage the public in transportation planning and project development processes. The Federal Highway Administration FHWA) and Federal Transit Administration (FTA) jointly published *Public Involvement Techniques for Transportation Decision-making* in 1996.

The document discusses a range of approaches for engaging the public through committees, in meetings, and other less traditional settings. The document also provides specific guidance related to involving

**Techniques to Engage the Public in Transportation Decision-Making**

- Citizen advisory committees
- Citizen involvement in established transportation committees
- Mailing lists
- Key person interviews
- Media outreach
- Printed informational materials
- Public meetings (e.g. hearings, open houses)
- Charrettes
- Visioning sessions
- Websites
- Phone hotlines
- Drop-in information centers

Source: FHWA and FTA 1996.
persons underserved by transportation, including ethnic, minority, low-income, or disabled persons.

FHWA also published the Citizen’s Guide to Transportation Decisionmaking, which introduces the public to the processes and opportunities for public involvement in transportation planning (2001). Specific guidance related to engaging minority, low-literacy, and non-native English speakers in transportation was provided in 2006 with FHWA’s publication, How to Engage Low-Literacy and Limited-English-Proficiency Populations in Transportation Decisionmaking. The document makes a number of suggestions related to engaging these potential participants, summarized in the box on the next page.

Further, individual states and other transportation agencies have provided guidance related to public involvement, including the Citizens’ Transportation Guide to the Austin Metropolitan Area from Austin, Texas, developed by the Capital Area Metropolitan Planning Organization (CAMPO) (1999) and Hear Every Voice: A Guide to Public Involvement at Mn/DOT created by the Minnesota Department of Transportation (Mn/DOT) (1999).

Over time, an additional emphasis on participation emerged through the context sensitive design (CSD) and context sensitive solutions (CSS) movement. Now more commonly called CSS, individual participants, neighborhoods, and communities are viewed as part of the context in which transportation projects are being built. Additional information about CSS is provided in the next section, Methodology and Case Context.

Most recently, the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) provided additional guidance related to public involvement, particularly in environmental review processes for transportation projects (U.S. Public Law 109-59). One key provision is requiring that a public and agency coordination plan be created at the beginning of the environmental review process, just after approving the purpose and need for the project. SAFETEA-LU also establishes guidelines related to “participating agencies” in environmental review processes, further formalizing the role of state, local, and tribal governments. Finally, the legislation calls for the use of visualization as a means of improving public involvement processes in the preparation of transportation plans. Visualization techniques include two-dimensional graphics such as photos or artist’s renderings, three- or four-dimensional tools, such as walk- or drive-throughs, that provide dynamic imagery, and real time simulation which allows full control by the person viewing the visualization (AASHTO Task Force on Environmental Design 2003).
Suggestions for Engaging Minority, Low-Literacy, and Non-Native English Speakers

- **Look for clues that people cannot read English or another language.** Statements such as “I left my glasses at home” can be a useful clue that the participant has low reading or writing skills.

- **Train staff to engage effectively with communities.** Role-playing and scenario exercises can be effective in building staff expertise and using staff that reflect others in the community can be helpful in making connections.

- **Use residents from the neighborhood to recruit participants, distribute information, and gather community feedback.** Key techniques include hiring local residents to interview others and seeking out community elders or leaders.

- **Provide food at meetings.** This approach creates a more social environment and makes it easier for participants to fit meetings into their busy schedules.

- **Be aware that public meetings may not be part of some cultures, and/or government buildings may have a negative connotation.** Those previously living under repressive governments, those whose culture does not involve attending public meetings, or those fearful or distrustful of government, may be unwilling to attend a traditional public meeting. Religious, ethnic, or neighborhood festivals or meetings held in social service agencies or schools may be better opportunities for public engagement.

- **Talk to local officials and community leaders.** Learning about and engaging the community can be facilitated by talking to local officials and community service providers such as school principals, English as a Second Language coordinators, and school bus drivers.

Source: FHWA 2006.

Understanding the Criteria for Effective Participation

In addition to the practitioner-oriented guidance related to participation summarized above, research provides further insights into what is required for participation to be effective. The literature points to criteria related to the organization and structure of the participatory aspects of the planning and design process, the timing of participation efforts, the overall level of participation, participation methods (e.g., steering committee, public hearing), types of participants, and use of communication efforts.

**Stakeholder Participation**

Including a wide range of stakeholders is one important aspect of designing an effective participation process (Lowry et al. 1997). Stakeholders may include members of the public, elected and appointed officials, agency staff from various levels of government, members of non-governmental organizations. Stakeholders might have high levels of expertise and interest
related to the planning issue or project. There has been recent attention toward getting children and youth involved in planning processes (see Frank 2006, Simpson 1997). Including a wide range of participants in planning processes can help to facilitate interaction and sharing of perspectives among different participants and gather information from all participants regarding their goals and objectives in the process (Enserink and Monnikhof 2003). Formal stakeholder identification techniques can be effective in identifying participants early in a planning process. The basic stakeholder identification technique identified by Bryson (1995) calls for listing potential stakeholders as part of an organization’s (i.e. agency, non-governmental organization) efforts to prepare for a participatory process. Using this technique, each stakeholder is evaluated based on the following: (1) their expectations for the organization, (2) their perceptions of how the organization is doing, (3) what can be done to satisfy the stakeholder quickly, and (4) longer-term issues of concern (Bryson 1995). A power vs. interest grid goes a bit further, evaluating stakeholders based on their interest in an organization and their power to affect that organization or issue (Eden and Ackermann 1998).

![Power vs. Interest Grid](source: Eden and Ackermann 1998)
Multiple Methods of Participation

As noted in the FTA and FHWA guidance cited above, there are numerous methods that can be used for public involvement in planning and design processes. Beyond the standard public hearing or open house meeting, there are numerous approaches that planners and designers can use to engage the public in transportation and other planning processes. Even informal approaches, such as signing a petition, writing an editorial, or attending a meeting of a neighborhood or religious organization where a project or plan is discussed, can be important venues for public involvement (Laurian 2004). The International Association for Public Participation (IAP2) provides a comprehensive list of tools available to achieve various goals of public involvement, including sharing information, compiling and providing feedback, and bringing people together. The list is included in the Appendix at the end of this report.

Consensus-based Decision-making Processes

Though not feasible in all situations due to the type of decision, history and level of interest of potential participants, time, and resources, consensus-based decision-making can contribute to the effectiveness of participation efforts. Characteristics of consensus-based processes include extensive interaction among participants, ensuring representation of full range of stakeholders, establishing a common problem definition, organizing the process with ground rules, engaging participants in jointly searching for new information, facilitating informal face-to-face dialogue, and addressing conflict when it arises (Lowry et al. 1997; Margerum 1999, 2002; Bentrup 2001). Further, an environment that is open and safe for ongoing deliberation also is important (Forester 1998).

Providing Information to Participants

A key aspect of designing effective participation processes is ensuring that participants are provided with the information needed to engage fully and make informed decisions. Diverse sources of information can be important in providing a range of perspectives on the issues to be addressed (Enserink and Monnihkof 2003). Further, using experts when necessary to provide information to supplement that of participants can be helpful (Innes and Booher 2004). In design processes, experts provide useful knowledge and experience, though it is important to be conscious of differences in perceptions among professional designers and the public (Crewe 2001, Van Herzele 2004). Where joint or co-design processes can occur, there is the potential that the two groups will learn from one another.
Visualization

One type of information increasingly used in participatory processes is visualization, which can include a wide range of techniques such as paper maps, Geographic Information Systems (GIS), sketches, photos, photo editing and simulation, 3-D physical or digital models, virtual reality, and video can be important in enhancing public involvement processes (Al-Kodmany 2002). King et al. (1989) emphasize that the effectiveness of visualization in public participation is “because it is the only common language to which all participants – technical and non-technical – can relate.” Visualization can help participants discuss design ideas, guide them as they move through the design process, raise awareness of design, and promote communication among them (Al-Kodmany 1999). The series of figures provided below provide insights into the range of visualization tools available to planners and designers.

Digital simulation of proposed pedestrian and bicycle bridge in Minneapolis, MN. This image illustrates the location and design of the proposed bridge relative to adjacent light rail, roadway, utilities, and land use. (Source: Midotown Greenway Coalition 2007).
Map of Hoover Dam Bypass project. This map illustrates the roadway location and key design features. (Source: Hoover Dam Bypass Project 2007).

Visualization can be passive or active. In addition to providing images for viewing by the public in meetings or online, interactive visualization efforts are being conducted. One example is the Visual Preference SurveyTM (VPS) technique developed by Anton Nelesson (2004). This technique is often used in meetings or in online surveys to gather quick feedback from participants related to their preferences for a series of images. Ratings provided by individual participants are provided and then averaged across respondents to evaluate the visual quality of streetscapes, building designs, and other structure and environments.

Visualization techniques also include interactive mapping programs provided on agency or organizational websites. Users may be allowed to select key attributes to illustrate on a map, navigate their way through a design scenario, or view alternative perspectives on a physical design, such as a roadway, bridge, or other structure.
Predicting the Outcomes of Participation

The literature on participation also discusses the outcomes that can be expected from effective participatory processes. Outcomes relate to decision-making processes, organizations, individuals, communities, and projects. Those outcomes of greatest interest in this study were the physical design of the transportation project and associated development and the broader social impacts at the individual and community level. But, general insights related to the range of possible outcomes of participation are of interest in setting the stage for the case study analysis.
Shared Knowledge

One of the key outcomes of participatory processes that can be expected is the generation of shared knowledge. While not likely feasible in all participatory processes, the development of shared knowledge, sometimes called group learning, is particularly associated with collaborative or consensus-based planning and participatory processes (Forester 1999; Innes 1992, 1996; Innes and Booher 1999). Characteristics of consensus-based processes include ensuring representation of a full range of stakeholders, establishing a common problem definition, organizing the process with ground rules, engaging participants in jointly searching for new information, facilitating informal face to face dialogue, and addressing conflict when it arises (Margerum 1999, 2002; Bentrup 2001). Shared knowledge, or social learning, assumes that through interaction with others, participants can develop a shared definition of the problem and possible solutions and gain knowledge about other participants (Innes 1992, Innes and Gruber 2005, Lowry et al. 1997).

Sensitive Design Solutions

Relative to physical design, one of the other outcomes that can be expected from effective participation is the ability to achieve sensitive design solutions (Crewe 2001). Further, effective participation can increase the likelihood that project outcomes will incorporate public preferences (Enserink and Monnhikof 2003). The design may be sensitive to the landscape, historical context, preferences of the community, and other features of the local context. In Crewe’s (2001) study of public involvement in the Boston Southwest Corridor project, she examined the outcomes of neighborhood participation including techniques such as public meetings, task force meetings, newsletters, and on-site offices in the corridor. She interviewed professional designers involved in the participation efforts and captured a number of interesting reflections, including:

- “…citizen contributions made the project ‘look as though it belonged’ in the neighborhood.”
- “…citizens’ ideas could help fine tune site amenities to local needs, add ‘spirit’ and ‘sense of place,’ create settings that looked as though they belonged, and foster a look of ownership over time.”
- “…citizen preferences could springboard healthy innovations in standard practice citywide…” (Crewe 2001).

These comments suggest the positive impacts that public involvement can have on design outcomes.
Support for Implementation

One of the often cited problems with planning documents is that they simply “sit on the shelf” after they are written. However, public involvement can help minimize this concern, as research suggests that effective participation can increase support for implementation among those involved (Burby 2003, Innes 1992). In particular, Burby (2003) found that when the participation brought together stakeholders with conflicting interests and provided a forum to reach consensus, the likelihood of implementation was higher. However, failure to seek consensus can hinder plan implementation (Margerum 2002). To the extent that participation efforts can bring together parties in conflict, public involvement can help reduce controversy and build support for implementation (Creighton 1992).

Community Capacity and Empowerment

Broader community benefits may also be achieved through public involvement processes, specifically building the framework and organizing capacity to facilitate ongoing solutions (Duram and Brown 1999, Tuler and Webler 1999). Specifically, Tuler and Webler (1999) suggest the following to help facilitate future policy efforts:

- “By successfully managing conflict, a process can ensure that future efforts are viewed as reasonable and legitimate.”
- “The improvement of working relationships among disputants can lay the groundwork for continued constructive deliberations about policy.”
- “A sense of place or community can give people a stake in outcomes and a desire to be engaged in the formulation of policy.”
- “Processes viewed as not being cost-effective may reduce support for and legitimacy of proposals for continued dialogue and broad-based policy-making.”

Increased social capital, sense of community, and improved relationships are among the community benefits achieved through public involvement (Bickerstaff and Walker 2001). Related to this is a sense of empowerment that is gained through public involvement. Empowerment is evident when those previously left out of decision-making processes become engaged and when the average person’s interest in and ability to contribute to policy decisions increases (Bickerstaff and Walker 2001).
Measuring Participation
The literature review provided here provides basic background information that can help practitioners as they think about how to organize and implement effective participation processes. The review provides a wide range of resources, including specific guidance on how to conduct public involvement and case studies of successful and unsuccessful participation efforts. The criteria and outcomes of effective participation presented here provide important benchmarks from which to evaluate the practice of participation in transportation planning and design processes.
Main Street, listed on the National Register of Historic Places, in Park City, Utah.
Part Three: Methodology and Case Context
Methodology and Case Context

Summary
This section introduces the methodology used to analyze the criteria and outcomes for inclusive and effective participation in the planning and design of transportation facilities discussed above. Further, the section introduces the contexts from which the cases are drawn and discusses the details of the case study approach used in the study.

Case Context
The cases were selected from two contexts – transit oriented development (TOD) and context sensitive solutions (CSS), identified by the researchers involved in the broader “The Role of Well-Designed Transportation Projects Enhancing Communities” project.

Transit Oriented Development
While there is no widely agreed upon definition for TOD, one commonly accepted description states that:

A Transit-Oriented Development (TOD) is a mixed-use community within an average 2,000 foot walking distance of a transit stop and core commercial area. TODs mix residential, retail, office, open space, and public uses in a walkable environment, making it convenient for residents and employees to travel by transit, bicycle, foot, or car (Calthorpe 1993, 56).

The figure on the next page illustrates the TOD concept as envisioned by Calthorpe, with a mix of land uses in close proximity (within a short walking distance of approximately 10 minutes) to a transit stop. Transit modes applicable to TOD can include heavy, light, or commuter rail, as well as buses and bus rapid transit (BRT) (Dunphy et al. 2003).

Over time, as various TOD projects have begun to emerge, a set of primary characteristics of TOD has evolved. Dittmar and Poticha (2004) in The New Transit Town: Best Practices for Transit-Oriented Development, identify five main goals of TOD including:
Defining transit oriented development (Source: Calthorpe 1993).

High density and mixed use development along the streetcar line in Portland’s Pearl District.
1. **Location efficiency.** This goal is focused on placing homes in close proximity to transit systems to put a large number of customers within a reasonable walking or biking distance to the transit station, locating transit facilities in locations accessible to users, and creating a convenient and pedestrian-friendly environment near transit for users.

2. **Rich mix of choices.** This goal emphasizes the importance of providing a range of activities and land use within neighborhoods. The emphasis is on providing numerous choices related to housing, transportation mode, and shopping.

3. **Value capture.** Recognizing the significant transportation costs that most households incur, this goal recognizes that some of those costs can be captured as household or community value if transportation costs are reduced due to the transportation efficiencies provided by TOD.

4. **Place making.** This goal is focused on providing attractive and pedestrian-friendly environments around transit. Key features of these types of environments include higher densities, interconnected streets, safe spaces, a balance between the natural and man-made environment, and a mix of uses.

Redevelopment near Mockingbird Station in Dallas.
5. **Resolution of the tension between node versus place.** This goal relies on developing a transit station that serves as both a functional transportation facility serving a local or regional readership, as well as a part of a neighborhood or community. Managing parking, multiple modes, pedestrian connections, building locations and orientations, diverse land uses, and service providers are all important considerations.

Public involvement in TOD planning and development is often framed as complex, considering the wide range of actors involved in most projects. However, the potential benefits, while not specifically measured, have been clearly noted by Belzer et al. (2004, 52) who suggest that “communities should not settle for less-than-optimal projects when they can improve project quality through their involvement.” Further, they encourage communities to work with developers and designers related to the design, mix of land uses, and integration of the project into the community (Belzer et al. 2004).

**Context Sensitive Solutions**

The second context from which the cases are drawn is CSS. This concept, also referred to as context sensitive design (CSD), is described by the Federal Highway Administration (FHWA) as the following:

CSS is a collaborative, interdisciplinary approach that includes all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist. CSS principles include the employment of early, continuous and meaningful involvement of the public and all stakeholders throughout the project development process (FHWA 2007).

The principles for CSS were established at the Thinking Beyond the Pavement conference held in Maryland in 1988. They include both outcomes and characteristics of transportation planning and design processes and are summarized on the next page.

CSS is an increasingly common approach to transportation project planning and design, represented in transit, highway, streetscape, and other types of transportation projects. As evident in the definition provided above, context relative to CSS is broadly defined to include the design/visual, environmental, historical, user, and community context. As envisioned, CSS is appropriate for all types of projects and, of course, in the full range of contexts.
Qualities that Characterize Excellence in Transportation Design include:

- 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 that Yield Excellence in Transportation Design include:

- 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).

CSS emphasizes flexible design relative to a wide range of transportation facilities including:

- Barriers (e.g. sound walls, pedestrian barriers),
- Bicycle facilities,
- Bridges,
- Crossing islands,
- Crosswalks,
- Curb extensions/neckdows,
- Interchanges,
- Landscaping,
- Lane widths,
- Medians,
- Roundabouts,
- Parking,
- Public utilities,
- Shoulders,
- Sidewalks, and
- Transit facilities (Context Sensitive Solutions 2007).

Brick sidewalks, street trees, and on-street parking help define the pedestrian realm in downtown Fort Worth, Texas.
The CSS approach is being institutionalized at the federal level through funded research on CSS and guidelines for transportation agencies. CSS also is being implemented at the state level, with departments of transportation integrating CSS into their approaches to transportation project design and development. The FHWA is working with several pilot states, including Connecticut, Kentucky, Maryland, Minnesota, and Utah, to implement CSS in transportation agencies (Burbank 2003).

A key aspect of CSS is its emphasis on community involvement in the transportation planning and design process, gathering local knowledge and using it to inform various aspects of the transportation project, including the type, design, and location. Schneider (2003) emphasizes this in her case study of the Paris-Lexington road reconstruction in Kentucky. The study notes the importance of adopting a context sensitive design approach early in the process can help minimize community conflict and not in my backyard (NIMBY) responses, promote stakeholder consensus, meet safety requirements, and minimize impacts on the environment (Schneider 2003).
Overview of Case Selection Process

Three cases were selected from each of these two contexts. The cases were selected based on a number of criteria:

- **Geographic diversity.** The cases are generally spread across the U.S.
- **Neighborhood context.** The cases were selected from neighborhoods and communities with varied demographic and economic characteristics. Several of the cases include neighborhoods with significant racial diversity and economic disparities.
- **Project scale.** The cases represent a wide range of scales. In addition to neighborhood-based TOD projects, the cases represent a small-scale streetscape project, a highway redesign, and a citywide traffic calming effort.
- **Planning and design issues.** The cases represent a range of issues related to transportation project planning and design. While all of the projects are focused on transportation improvements, they also address other issues including mobility, equity, multi-modal considerations, urban design, housing, economic development, and public services.
Public involvement. Though varying significantly in approach, the selected cases had relatively high levels of public involvement in the planning and design processes.

Previous studies. A number of the cases have been previously highlighted in case studies related to TOD, CSS, and environmental justice (see Urban Land Institute 2007, Context Sensitive Solutions 2007, FHWA 2000).

Connections to the broader study. To ensure some overlap among the cases considered in the broader study, an attempt was made to use at least some of the same cases studied by the other researchers.

An in-depth analysis of the selected cases, consisting of three parts was completed. The analysis included: (1) review of secondary sources, (2) review of project documents, and (3) interviews.

Review of Secondary Sources
As noted above, most of the cases had been highlighted in previous academic and practitioner-oriented research. Previously written descriptions and analyses of the projects were collected and reviewed to provide background knowledge in preparation for the later steps in the analysis.

Review of Project Documents
Documentation related to the selected cases, including plans, policies, meeting minutes, project websites, was collected and reviewed. This analysis provided information about the planning and design process that was used for the project, insights about the role of public and stakeholder involvement in the process, and the outcomes of the planning and design process.

Interviews
Primary data related to the selected cases was gathered through interviews with 49 key participants across the six cases during the spring of 2007. Interviews were conducted in-person by a member of the research team when possible, though approximately one-quarter were conducted by phone. Interviewees included both those managing the participation processes and participants themselves, with an intent to capture the broadest range of perspectives on the conduct and outcomes of the planning and design process for the transportation project. Elected and appointed officials, representatives from relevant agencies and non-governmental organizations, and the general public were among those interviewed. Professional architects, planners, landscape architects, and engineers also were interviewed for the study. Table 1 on the next page identifies the affiliations of interviewees included in the study. While some of
Table 1. Affiliations of Case Study Interviewees

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Number of Interviewees</th>
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<tbody>
<tr>
<td>Local, regional, or state agency staff</td>
<td>20</td>
</tr>
<tr>
<td>Consultants (architects, landscape architects, planners, engineers)</td>
<td>10</td>
</tr>
<tr>
<td>Elected/appointed officials (e.g. city council members)</td>
<td>3</td>
</tr>
<tr>
<td>Appointed officials (e.g. historic preservation committee members)</td>
<td>4</td>
</tr>
<tr>
<td>Non-governmental organization representatives (e.g. downtown council, community development corporation)</td>
<td>8</td>
</tr>
<tr>
<td>Developers</td>
<td>1</td>
</tr>
<tr>
<td>General public participants</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total number of interviewees</strong></td>
<td><strong>49</strong></td>
</tr>
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</table>

The interviewees are associated with more than one category, they were assigned based on their primary role in the project.

The interviews were guided by a series of questions intended to gather basic information about each of the cases. The questions also attempted to operationalize the indicators and outcomes of effective participation identified in the literature review. The open ended questions allowed for a large amount of information to be gathered from the interviewees related to their role in the project, their perceptions of the participation efforts, participation techniques used in the process, and the outcomes of the planning and design process. Key issues addressed in the interview questions are identified in Table 2.

Following the interview efforts, the interview results were summarized and compared across the interviewees and across the cases to identify the indicators and outcomes of effective participation in planning and design processes for transportation projects. In addition, the interview outcomes are further synthesized in the best practices for public involvement identified and included at the end of this report.
Table 2. Summary of Key Interview Questions

<table>
<thead>
<tr>
<th>Background information</th>
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<tr>
<td>• What was your role?</td>
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<tr>
<td>• What was your level of participation?</td>
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<tr>
<td>• How did you hear about the planning and design process?</td>
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<table>
<thead>
<tr>
<th>Participation process</th>
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<tbody>
<tr>
<td>• What types of participation techniques were used?</td>
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<tr>
<td>• What methods were used to deliver information to the public?</td>
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<tr>
<td>• How were stakeholders identified and recruited for participation?</td>
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<tr>
<td>• Was technology used in the participation process?</td>
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<tr>
<td>• Were the opportunities for children and youth to be involved in the process?</td>
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<thead>
<tr>
<th>Perceptions of participants</th>
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<tbody>
<tr>
<td>• Were participants representative of the community’s interests?</td>
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<tr>
<td>• Did participants become more positive about the project over time?</td>
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<tr>
<td>• Did participants bring additional information to the process that might not otherwise have been considered?</td>
<td></td>
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<tr>
<td>• Did participants gain knowledge as a result of their involvement?</td>
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<table>
<thead>
<tr>
<th>Perceptions of process</th>
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<tbody>
<tr>
<td>• Were participation techniques effective in drawing out participants’ perspectives?</td>
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<tr>
<td>• Did facilitators provide sufficient information to help participants make informed assessments of the project?</td>
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<tr>
<td>• Was the planning and design process fair, including sufficient opportunities to participate?</td>
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<tr>
<td>• Do you think that there was a particular agency or individual that was integral to the success of the project?</td>
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<tr>
<td>• Was there conflict between the public and designers, developers, and/or agency staff? How was this conflict addressed?</td>
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<tr>
<td>• Were facilitators responsive to the interests and concerns of participants?</td>
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<tr>
<td>• Did participation efforts produce information to help decision-makers make an informed decision about the project?</td>
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<thead>
<tr>
<th>Personal outcomes</th>
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<tbody>
<tr>
<td>• Did you learn anything new as a result of your participation?</td>
<td></td>
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<tr>
<td>• Did you compromise your own preferences about the project?</td>
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<tr>
<td>• Did you change your mind about any aspect of the project as a result of your participation?</td>
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<tr>
<td>• Did you see yourself as a co-designer in the planning and design process?</td>
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<thead>
<tr>
<th>Project outcomes</th>
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<tbody>
<tr>
<td>• Did participants have an influence on the plan or design?</td>
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<tr>
<td>• Did public involvement have a positive or negative impact on project outcomes?</td>
<td></td>
</tr>
<tr>
<td>• Did the project have a positive or negative impact on the community or neighborhood?</td>
<td></td>
</tr>
<tr>
<td>• Do you think that the project is attractive and/or well-designed?</td>
<td></td>
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<tr>
<td>• Does the project fit the character of the community or neighborhood?</td>
<td></td>
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<tr>
<td>• Does the project reflect the values and needs of the public?</td>
<td></td>
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<tr>
<td>• Was the project successful?</td>
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</table>
Pedestrian pathway and bridge on the Riverwalk in San Antonio, Texas.
Part Four: Cases
Cases

Overview

In order to measure the impacts of public involvement in planning and design processes for transportation, the study examined six transportation project cases. Using the previously identified criteria and outcomes of effective participation as a guide, the researchers analyzed six cases from two contexts: transit oriented development (TOD) and context sensitive solutions (CSS). As noted in the previous section, cases were selected because of their varied characteristics, including location, scale, transportation project type, site conditions, and issues. In addition, there was a particular interest in achieving variation in the neighborhood context for the project, as this provides variation in the type of participants that were likely to participate in the planning and design process.

This section provides a summary of the characteristics of each of the selected cases, with a particular focus on describing the participation efforts conducted in each of the planning and design processes. In addition, information about the general characteristics of the surrounding neighborhood and community are provided. A large number of images are provided in this section, to illustrate some of the key components of each of the selected cases. The details of the cases are drawn from a range of sources, including existing documents and interviews with participants. Sources of written documents are noted, the remaining details are drawn from interviews with key participants and site visits.

TOD Cases

The three TOD cases examined in the study represent many of the characteristics identified in the previous section, including location efficiency, a mix of uses, pedestrian oriented environments, and integration of a well-functioning transportation facility in a neighborhood and community context. The cases vary significantly in terms of the characteristics of the communities in which they are located. In addition, the cases illustrate the range of approaches and types of public involvement that can occur in planning TOD projects.

Emerson Park Station Area, East St. Louis, IL

The first TOD case clearly illustrates the influence that public involvement can have in a transportation planning and design process. The study focused on the Emerson Park station,
located in the city of East St. Louis, Illinois, in the St. Louis metropolitan area. The station is part of the St Louis Metrorail system and was developed in 2001. East St. Louis has historically been challenged by political corruption, poor infrastructure, consistent poverty, and racial segregation. The city’s population of 31,500 in 2000 was 98 percent African-American (U.S. Bureau of the Census). The Census also reports a median household income $21,324 for the city, with over 35 percent of people living below the poverty line, only 66 percent of residents holding a high school degree, and fewer than 10 percent holding a bachelor’s degree or higher (2000). Unemployment is estimated at around 30 percent (ESLARP 2007). While the homeownership rate is at 53 percent, the median housing value is very low at $42,000 citywide, and even lower at $35,000 in the Census tracts surrounding the Emerson Park station. Despite low housing values, housing remains unaffordable for a large portion of residents, with 49 percent of renters and 35 percent of owners (with a mortgage) paying over 30 percent of their income for housing (U.S. Bureau of the Census 2000).

Access to transportation and jobs remains a further challenge, with 63 percent of residents near the station traveling 30 minutes or more to get to work and 18 percent of residents using public transportation (U.S. Bureau of the Census 2000). For East St. Louis, overall, residents have slightly higher accessibility, with 41 percent traveling over 30 minutes to work and 15 percent using public transportation to travel to work (U.S. Bureau of the Census 2000). Despite the relatively high numbers of residents using transit, the community has been historically
underserved by transit. An initial proposal for the Emerson Park station would have continued this situation, by locating the station in an inaccessible location across a major highway from the neighborhood. In response to this proposal, the Emerson Park Development Corporation (EPDC) actively lobbied MetroLink, St. Clair County Transit Authority, and the City of East St. Louis to relocate the station to the Emerson Park neighborhood. The EPDC, a local non-profit organization, had a long history in the neighborhood and experience engaging the public in community planning and visioning efforts since the 1970s.

To support the lobbying effort and planning for station area development, the EPDC organized extensive community participation. A key aspect of this participation was community organizing, in one case conducting a door-to-door fundraiser, in which residents were introduced to the issue and asked to contribute a small amount to support the neighborhood’s efforts. The extensive community organization and engagement allowed the EPDC to call on neighborhood residents to attend public hearings and other meetings related to the proposed station, ensuring that the community’s voice was heard in discussions about the station location, and later its design.

A key aspect of the planning and design effort for the station and the surrounding area was collaboration with the East St. Louis Action Research Partnership (ESLARP), which engages
urban planning, architecture, and landscape architecture students from the University of Illinois at Urbana-Champaign in community assistance and development in distressed areas. This program started in 1987, when State Representative Wyvetter Younge requested technical assistance from the University for the legislative district containing East St. Louis (ESLARP 2007). The ESLARP used its program of mutual learning and assistance to develop station area designs that responded to residents’ concerns. The designs gave the EPDC greater credibility as they approached local and regional officials about moving the proposed station to their neighborhood.

Following the neighborhood’s success in relocating the station, the EPDC coordinated with McCormack Baron Salazar, an experienced for-profit mixed-income housing developer to help implement the station area plan, including planned transit oriented development that included 147 units of mixed-income housing, the first to be built in the neighborhood in over 30 years. As a direct result of this participation effort, the EPDC has received a great deal of notoriety and has been able to leverage this into additional grant money and funding for the neighborhood, build a community charter school, and provide the neighborhood of Emerson Park with much needed infrastructure improvements and social capital.

Parson’s Place development, located near the Emerson Park transit station. (Photo source: Ann Forsyth).
Clarendon Station Area, Arlington County, VA

Rather than new construction of a TOD project, the Clarendon station area in Arlington County, Virginia, represents an evolving approach to development around transit facilities. The Clarendon station opened as part of the Rosslyn-Ballston orange line corridor in the 1970s. Initially proposed to be located in a nearby highway corridor, Arlington County negotiated with Washington, DC, Metrorail officials to move the transit line to an already developed corridor. Early fiscal impact studies showed that the County’s $300 million investment to move the corridor would pay off as redevelopment and new, more-intense development grew up around the proposed station areas. The initial plan for the corridor, often called the “Bullseye Plan,” due to its focus on redevelopment to a higher-intensity mix of uses within “urban villages,” ¼ mile from the new stations, and keeping the remainder of the corridor intact. Over time, the corridor has seen significant development, with new office, retail, hotels, and higher density residential, among older single-family neighborhoods (Leach 2004). Transit has become a major aspect of the community, with 33 percent of residents using public transportation to go to work and an additional nine percent walking (U.S. Bureau of the Census 2000).

Clarendon station area has seen significant redevelopment in recent years, guided by ongoing planning efforts. This study focused specifically on the most recent planning process for the area, the 2006 Clarendon Sector Plan Update. The plan represents a continued refinement and specification of the land use and urban design details for the urban village.
Top: The initial “Bullseye Plan” for the corridor is represented in this graphic from the RB72: Alternative Land Use Patterns for the Rosslyn-Ballston Corridor document, completed in 1972. The circles represent areas of influence within a 1/4 mile radius of transit stations that might be eligible for redevelopment. (Source: Arlington County, VA, 1972). Bottom: The current representation of the “Bullseye Plan” remains the source for the “urban village” concept that is further refined in the 2006 Clarendon Sector Plan. The graphic illustrates the location of the Clarendon station area among the other urban villages in the Rosslyn-Ballston Corridor. (Source: Arlington County, VA, 2006).
Land Use and Urban Design Elements in the Clarendon Sector Plan

- Creating a centralized area of medium density mixed-use development to provide a balance of uses and achieve continuous activity in the area during day and evening hours;
- Improving housing diversity, including unit types, price ranges, and ownership opportunities;
- Preserving older and historic buildings, frontages, and facades amidst new infill development;
- Limiting building heights to create sensitive transitions to adjacent low-density residential areas;
- Providing diverse retail opportunities including retail and restaurants, including locally and independently owned businesses;
- Creating a network of open spaces connected by improved streetscapes to enhance the quality of the public realm, improving safety and walkability, creating community gathering and recreation spaces, and promoting an active street environment;
- Narrowing streets and intersections to provide shorter pedestrian crossings, bike lanes, more on-street parking, and wider sidewalks; and
- Constructing new mid-block streets to provide additional vehicular and pedestrian circulation by reducing block sizes and continuous building walls behind sidewalks.


High density residential development is being constructed among existing structures in the Clarendon Station Area.
The public involvement efforts associated with the plan were extensive. A key aspect of the process was the establishment of a community task force, including local civic associations; businesses; property owners and developers; Historical Affairs and Landmark Review Board; Pedestrian Advisory Committee; Clarendon Alliance; and the City’s Planning, Transportation, Housing, and Park and Recreation Commissions (Arlington County 2006). Several of the interviewees noted the County’s high levels of income and education as contributing to the high level of engagement and well-developed civic infrastructure. The county had a relatively high median household income of $67,000 in 2000, with residents in the Clarendon station area even higher at $76,000 (U.S. Bureau of the Census 2000). The Census reports high educational attainment, with 74 percent of station-area residents and 60 percent of county residents holding bachelor’s degrees or higher. Median housing values, as expected in the Washington, DC, region are quite high at $262,000 in the county and $283,000 in the station area (U.S. Bureau of the Census).

The community task force successfully created the framework and key content for the plan, but was unable to reach consensus on a few outstanding issues. The County Board then reluctantly completed the outstanding details of the plan and sought approval from the required County boards and commissions. In addition to the task force, additional participation efforts included a design charrette, meetings with neighborhood associations, extensive use of visualization...
techniques to illustrate plan concepts (sometimes contributed by participants), website, and an online discussion group. The implementation of the plan is just beginning. As new development and public investments in transportation and other public infrastructure continue, these efforts will be guided a number of policies related to TOD and the design of the public and private realms.

**Fruitvale Transit Village, Oakland, CA**

The final TOD case, like Emerson Park, is a new transportation project. The Fruitvale Transit Village is located at the Fruitvale station on the Bay Area Rapid Transit (BART) rail system in Oakland. The Fruitvale Transit Village is a mixed-use development, including multi-family residential, commercial, office, and services, including a library, day care, and clinic. The project is located in the historically Latino Fruitvale neighborhood. The most recent Census estimates that 73 percent of the population in the adjacent Census tracts is of Hispanic or Latino origin, compared with 22 percent for the City of Oakland (U.S. Bureau of the Census 2000). Over one-quarter of neighborhood residents are classified as living below the poverty line and the median household income for the neighborhood was $28,587, much lower than that for Oakland at $40,000. The neighborhood also has much lower median housing values in the relatively
expensive Bay Area at $136,000, compared to $236,000 citywide. Despite relatively low housing values, homeownership rate is only 21 percent, with 43 percent of renters and 30 percent of homeowners (with a mortgage) paying more than 30 percent of their income for housing (U.S. Bureau of the Census 2000).

The neighborhood residents have long been served by a local non-profit community development corporation, the Unity Council. Originally called the Spanish Speaking Unity Council when it was created over 40 years ago to represent the range of organizations serving the large number of Spanish speaking resident, the organization retains a strong connection to neighborhood residents and businesses. This connection initiated the organization’s role in the planning and design process for the Fruitvale Transit Village.

The site of the Transit Village was originally planned as a parking garage adjacent to an existing BART station. During the environmental review process for the parking garage, the Unity Council and other local stakeholders heard about the proposed plan and its effect of cutting off access to the station for local residents and serving primarily commuters from outside the neighborhood. Considering that 20 percent of residents in the Census tracts near the Fruitvale Transit Village use public transportation to get to work, this connection was a key concern (U.S. Bureau of the Census 2000).

The Unity Council tapped into its extensive network to organize residents and businesses, successfully challenge the parking garage, and propose an alternative mixed-use development that would serve the BART station and also meet the needs of local residents. The early planning process involved a charrette with a number architecture firms to develop a concept.
for the site. This effort initiated the planning and design process and set the stage for extensive public involvement from the neighborhood. The Unity Council held many public meetings and discussions with individual stakeholders, business, community organizations, service providers, and even local gangs. Concerns about safety, transit access, and aesthetic impacts were among the concerns raised. There was a particular anxiety about building height, with limits ultimately imposed to ensure a visual connection between the station area and the steeple on the nearby community church.

To facilitate the development of the transit village, the Unity Council established the Fruitvale Development Corporation, which gained control of the site in 1998. Through extensive collaboration with the community, BART, the City of Oakland, the Federal Transit Administration (FTA), and several community service providers, including La Clinica de la Raza and the Oakland Public Library, the Fruitvale Development Corporation was able to secure the resources and institutional support necessary to move the project forward.

The Fruitvale Transit Village represents the design character of the neighborhood, serves as a community gathering space, provides affordable housing, and includes essential neighborhood
services, including medical and child care, and has stimulated further revitalization in the Fruitvale neighborhood, including additional residential development and a public market. Further, the Transit Village serves as a multi-modal hub, with rail, bus, taxi, bicycle, and pedestrian facilities included. The project became one of the first models of TOD in the U.S.

CSS Cases
Three additional cases represent the application of various CSS design elements, as well as recommended aspects of CSS planning and design processes noted in the previous section. These cases illustrate the application of CSS at three different scales: (1) neighborhood streetscape, (2) suburban roadway corridor, and (3) citywide. Further, the three varied cases illustrate a range of approaches used to initiate and retain public involvement in transportation planning and design processes.

Barracks Row, Washington, DC
The Barracks Row project is a six block streetscape redesign project on Eighth Street SE in the Capitol Hill Historic District in Washington, DC. The street includes a number of historic buildings, a mix of businesses, and the U.S. Marine Barracks. The area was the first commercial
Barracks Row is part of the Capitol Hill Historic District. Informational signs, describing the history of the area, are located throughout the corridor. The Marine Barracks are located on the right side of the street in the photo above.

area in the city, serving the nearby naval harbor on the Anacostia River, the Marine Corps post, and adjacent residential neighborhoods that began to develop. The project is highly accessible, located one block from the Eastern Market station on the Washington, DC, Metrorail system. Approximately 38 percent of nearby residents use public transportation to get to work, compared to 33 percent of Washington, DC, residents (U.S. Bureau of the Census 2000).

Based on a further analysis of data from the 2000 Census data, the surrounding Census tracts are representative of the Washington, DC, area with a racial breakdown of approximately one-third white and two-thirds non-white population. The Barracks Row area has a slightly higher percentage of persons living below the poverty line, lower median household income, slightly lower education attainment, and significantly lower homeownership rate. However, the median housing value is significantly higher at $213,000, compared to Washington, DC, at $157,000 (U.S. Bureau of the Census 2000). The adjacent neighborhoods include a mix of housing types and values, which is likely reflected in the disconnect between the lower income and educational levels, but higher median housing values.
Following many years as a successful commercial corridor, Barracks Row began to decline following World War II due to a number of factors including loss of jobs at the naval yard and loss of nearby residents due to suburbanization. Declines continued in the 1960s, when Eighth Street was bisected by an elevated freeway and riots, following Martin Luther King Jr.’s death, led to looting and the closure of a number of businesses (Barracks Row Main Street 2007).

Remaining business owners banded together in the early 1990s to form the Barracks Row Business Association, later renamed the Barracks Row Main Street (BRMS) Association. In response to a proposal by the District of Columbia Department of Transportation (DDOT) to resurface the street, BRMS with the support of Historic Main Streets and National Trust for Historic Preservation, requested the addition of a streetscape redesign (MacCleery 2004). Additional funding was provided by the DC Main Streets program.

Early visioning efforts leading up to the streetscape design included several public meetings and community surveys reaching hundreds of participants (MacCleery 2004). The participation efforts continued throughout the construction process, with bi-monthly “construction coffee updates” held at a local coffee house, presentations to the Advisory Neighborhood Commission, and articles appearing in neighborhood newspapers and the Barracks Row Bulletin. The
participation effort was collaborative and included agency staff, consultants, Marines and Navy staff, business owners, and the general public.

Participation occurred throughout the planning and design process, from early visioning efforts through design implementation and construction. The collaboration between agency staff, private consultants, Marines and Navy staff, business owners, and public participants produced a streetscape redesign that accommodates the needs of pedestrians and vehicles and has revitalized the Barracks Row area. It features street trees, pedestrian-scaled lighting, signage highlighting the history of the area, on-street parking, a partial one-way street, outdoor cafes, paved crosswalks, and wide sidewalks.

**Bridgeport Way, University Place, WA**

The second case represents that application of CSS at a larger scale, through a 1.5 mile highway redesign project in University Place, Washington, a suburban community approximately 40 miles south of Seattle. In 2000, the community had 30,000 residents, primarily white (76 percent), with a relatively high median household income of over $50,000. Primarily a residential community, approximately 60 percent of the population travels between 10 and 34 minutes to work, 90 percent of which travel by car and only three percent by transit (U.S. Bureau of the Census 2000).

The plan for the highway redesign was developed in response to significant growth in the community, a number of traffic accidents in the corridor, and the proposed development of a mixed-use town center. The City proposed roadway improvements from a five-lane rural section highway to a four-lane divided highway, with additional signals and right-of-way to accommodate multiple modes.

A large number of participation efforts were conducted in association with the planning and design process for the roadway. Efforts included numerous public meetings and open houses, meetings with neighborhood groups and individuals, and design charrettes, one each for adults and high schools students (Context Sensitive Solutions 2007). As part of this process, the City hired nationally recognized design consultants, focused on walkability and streetscape design, to introduce alternative street design concepts including roundabouts, landscaping, and multimodal considerations. The consultants used images from other communities and visualization techniques to illustrate the design options for the new roadway. The initial design, based on early meetings and consultant input, featured four roundabouts, a wider right-of-way, and extensive landscaping.
The photos depict conditions on Bridgeport Way prior to reconstruction. The roadway featured a shared center turn-lane, no sidewalks, and minimal landscaping. (Photo source: City of Bridgeport Way).
The reconstructed Bridgeport Way includes an extensively landscaped median, well-designed lighting, a bike lane, sidewalks, and transit facilities.
Two mid-block crossings are located on Bridgeport Way, providing safe crossings for pedestrians between commercial, public, and residential uses in the corridor.

The roundabouts became a point of contention among some residents of the community. There were significant concerns about safety, loss of private land, and the functionality of the proposed design. As a newly incorporated city, some of this contention may have been associated with remaining concern about the impacts of incorporation and the changing role of local government. An organized group of residents, Citizens Against Repetitious Roundabout (CARR), staged substantial opposition against the proposed design, participating consistently in public meetings, writing newspaper editorials, and reaching out to other residents. There was also concern among businesses in the corridor about right-of-way acquisition and business access due to the proposed construction of a median. Ultimately, the roadway design evolved as a result of public and business involvement. A compromise design removed the roundabouts and created flared intersections to allow space for U-turns for business access, but retained extensive use of landscaping, central medians, neighborhood-scaled lighting structures, two mid-block pedestrian crossings, underground utilities, and pedestrian, bicycle, and transit enhancements.

Consultants and city officials have cited a reduced number of accidents, improved business revenues, and investments in private property in the corridor. In addition, the City is moving forward to the town center development project, with Bridgeport Way functioning as the community’s mainstreet.
The final case study represents a city-wide application of CSS, focusing specifically on a wide range of traffic calming efforts in the West Palm Beach’s varied neighborhoods. The City’s interest in traffic calming emerged in the mid-1990s as it faced high crime rates, drug activity, the loss of residents to adjacent suburbs, and the decline of business activity in downtown. The city has long been a more affordable and more diverse community than Palm Beach, its neighbor across Lake Worth and more affluent tourist-destination. As of 2000, the population of 82,000 was 58 percent white, 32 percent African-American, and 18 percent Hispanic (U.S. Bureau of the Census 2000). Census figures report a median housing value of $98,000 and homeownership rate of 52 percent. However, economic inequities exist, with 19 percent of residents living below the poverty line, 47 percent of renter households and 34 percent of owner households (with a mortgage) paying more than 30 percent of their income for housing, and only 27 percent of residents holding a bachelor’s degree or higher (U.S. Bureau of the Census 2000).

The mayor at the time saw traffic calming as way to improve quality of life, safety, and build community pride. Following her attendance at a conference where she had a presentation from a traffic calming expert, she returned to the City and convinced the expert to move to West Palm Beach and lead the City’s Transportation Planning Division, moving transportation out of the public works department. This partnership was cited by interviewees as essential for moving the traffic calming initiative forward, providing a new approach to roadway design.
Top: Traffic calming efforts in downtown West Palm Beach include paved crosswalks and intersections, bollards, updated traffic lights, neckdowns at intersections, landscaping, and on-street parking. Bottom: The new CityPlace development near downtown includes narrow streets, mid-block crossings, and wide sidewalks to create a pedestrian-oriented environment.
Traffic calming types and locations in West Palm Beach, Florida. (Data source: City of West Palm Beach, 2006).

and even instituting a city policy related to the use of typical transportation terminology. The Transportation Language Policy (City of West Palm Beach 1996) provided a greater focus on pedestrian and bicycle safety and multi-modal considerations in roadway design.

With limited transit service and 92 percent of the population driving to work, the design of the community’s roadways was of key concern. Further, concerns about cut-through traffic, high speeds, and safety on residential streets led to community interest in traffic calming. The City implemented traffic calming in a number of contexts, including major arterials and downtown, as well as in many of the city’s neighborhoods. The map below shows the types of traffic calming efforts constructed and their locations throughout the community. A wide range of traffic calming approaches were used, including traffic circles (roundabouts), cushions, chokers, medians, speed
Street narrowing, or throttle, in a West Palm Beach neighborhood is used to slow traffic. The use of landscaping and brick pavers enhance the appearance of this traffic calming device.

humps, narrowing, raised crosswalks, and raised intersections. Traffic calming efforts often included landscaping and associated signage notifying drivers about nearby traffic calming features.

The participation efforts related to the planning and design of traffic calming projects varied by context. For example, in downtown, traffic calming was planned and designed as part of the Downtown Master Plan. The planning process included charrettes that engaged downtown businesses and relevant agencies. Traffic calming efforts on major arterial streets included significant interaction with the Florida Department of Transportation, public design charrettes, and the development of proposed design scenarios for the roadways. Public involvement in the CityPlace master planning project, a major mixed-use redevelopment near downtown, occurred through the development approval process, with required public hearings and meetings.

Public involvement in traffic calming in residential areas was extensive. While the City targeted some neighborhoods for traffic calming, in many cases, neighborhood organizations and groups of residents approached the city requesting traffic calming measures. One of the interviewees referred to this as a community design approach, wherein community preferences were given priority. In response to neighborhood concerns, City staff would often hold an initial meeting with residents on neighborhood streets to solicit input and gain knowledge of the community. Typically, City staff would then develop traffic calming ideas and then bring them back to residents in a general meeting with the neighborhood. On-street meetings allowed for high levels
of interaction between City staff and residents and even spray painting traffic calming locations and making adjustments based on residents’ concerns.

The effects of traffic calming efforts in the City were cited by a number of the interviewees, including improved safety, neighborhood cohesion, and increased business and residential development in downtown. In recent years, there has been a political backlash to some of the early traffic calming efforts and the introduction of a point-based system for determining where future traffic calming would be constructed. This system was described by one of the interviewees as an engineering-type warrants system wherein traffic counts, speeds, and accident rates are used to justify traffic calming, not explicitly accounting for neighborhood perceptions of safety and preferences for roadway design. Despite these changes, the City of West Palm Beach’s traffic calming efforts have become a national model and continue to generate interest from neighborhoods that have not yet received traffic calming improvements.

**Summary**

The case information provides useful insights into the conduct and outcomes of public involvement in the planning and design processes for each of the projects. The approaches used in each case varied significantly, but point to some important lessons that will be discussed in the next section.
Roadway in Golden Gate Park in San Francisco is closed on Sundays to accommodate non-motorized transportation.
Part Five: Practices
Practices

“Architects have a social responsibility to create an environment that really fits a community.”

Ernesto Vasquez, AIA, Founding Partner
McLarand, Vasquez, Emsiek & Partners

Summary of Best Practices
The quote above emphasizes one of the key findings from this study, the importance of designing projects that meet the needs of the community and fit the context of neighborhoods, cities, and regions. This outcome can be achieved effectively, efficiently, and creatively, by engaging the public - transportation users, decision-makers, neighbors, and organizations. The cases summarized in the previous introduced in the previous section, provide important insights for communities, planners, engineers, and designers as they begin their work in planning and designing transportation projects.

This section presents the results of extensive research into the cases identified previously, including the results of interviews with a wide range of participants in each of the projects. The findings are summarized as best practices that those involved in transportation project planning may want to consider. These best practices encompass many of the criteria and outcomes of effective participation identified in the early part of the study. The practices provide information about how to organize participation, who should be involved, understanding the purpose of participation, and engaging with design experts. Further, the discussion of practices provided here, points to some of the outcomes of effective participation that can be achieved at the project, individual, neighborhood, and community level. As a means of illustrating the varied applications of the best practices in the transportation cases studied, key highlights from the case details are provided.

Multiple Methods of Participation
Each of the cases considered in the study used a range of different types of participation techniques. These techniques were employed at various points during the planning and design process. In one case, Barracks Row, participation efforts even continued throughout the
The relocation of the St. Louis Metrolink station to the Emerson Park neighborhood was stimulated by significant community involvement. Residents and the EPDC saw the potential for the station to meet their immediate transportation needs, but also stimulate redevelopment, including the Parson’s Place development shown in the background of the photo. (Photo source: Ann Forsyth).

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construction process with meetings of stakeholders occurring bi-weekly in the corridor. In addition to traditional public meetings or hearings, varied participation techniques were used to reach diverse interests at different points during the participation process.

For example, in the Emerson Park neighborhood, groups, led by the EPDC, conducted “knocks and talks” to engage participants around the topic of relocating the transit station and its potential effects on the community. Extensive community organizing also occurred in the Fruitvale Transit Village, as the Unity Council conducted extensive outreach to key service and community organizations, met with individual residents and businesses, and even engaged local gangs in the design process. Personal contacts and distribution of flyers around the neighborhood were important methods used to reach neighborhood residents. The result of the organizing efforts in both of these cases was the establishment of a strong base of public support behind the local non-profit organizations’ lobbying efforts to provide an alternative vision for a neighborhood transit facility. One interviewee related to the Emerson Park project noted that the sheer numbers
of residents that turned out to support moving the transit station to the neighborhood were able to shame the agency into doing so.

Design charrettes were another key method for engaging the public in the cases considered in the study. In the planning and design process for Bridgeport Way, the City of University Place worked with consultants on two design charrettes for the roadway, one for adult residents and a second for local high school students. An in-depth five-day charrette was also conducted during the Clarendon Sector Plan Process. The charrette began with an information gathering session for participants, the results of which informed the work conducted by the consultants. Formal and informal reporting of progress continued throughout the multiple day charrette, wrapping up with a presentation of sketches and maps illustrating refined alternatives (Arlington County 2003a and 2003b).

A planning task force was established in Arlington County for the Clarendon Sector Plan, representing a wide range of community interests, including local organizations and interest groups. See the list of task force members and their affiliations on the next page. Existing

Excerpts from closing presentation for Clarendon Sector Plan charrette. The presentation summarizes the analysis and public input collected during the five day charrette process (Source: Arlington County, VA and HOK 2003).
advisory committees were further used to guide the planning and design processes, as well as deliver important information back to the broader public, for the Barracks Row and Emerson Park project.

In each of the cases examined in the study, the varied approaches used to promote public involvement and gather public input, resulted in participation by a large number of interests in the communities and built a base of support as the project moved forward. In each case, public involvement shaped the ultimate design of the transportation project and helped to ensure that it met the community’s needs and preferences.

Local Champion

In many of the cases examined in the study, the presence of a local champion, whether an individual or an organization, was essential in leading the project forward. Interviews conducted during the study revealed, in many cases, a high level of respect and gratitude for the influence that these individuals and organizations had in facilitating effective planning and design processes and building community consensus around the preferred qualities of the transportation project or plan.

One example of the role of a local champion comes from the Fruitvale Transit Village case. The interviews continually pointed to Arabella Martinez, the Executive Director of the Unity Council at the time, as being integral to success. Her history and connections in the community, her

Organizations Represented by Clarendon Sector Plan Task Force Members

- Ashton Heights Civic Association
- Ballston - Virginia Square Civic Association
- Local businesses
- Clarendon Alliance
- Clarendon - Courthouse Civic Association
- Economic Development Commission
- Historic Affairs and Landmarks Review Board
- Housing Commission
- Lyon park Citizens Association
- Major property owners (developers)
- Park and Recreation Commission
- Pedestrian Advisory Committee
- Planning Commission
- Transportation Commission

Source: Arlington County, VA, 2006.
political connections in the local and federal government, her ability to work with agencies and service providers to secure funding for the project, and her commitment to achieving an outcome that met the needs of the community were essential to the success of the project.

In one of the cases, a local elected official was recognized as essential to the success of the transportation project. The mayor of the City of West Palm Beach during the mid-1990s, Nancy Graham, was central in leading the traffic calming effort and in working closely with local residents and businesses to ensure that design solutions fit the local context. Inspired by a presentation on traffic calming that she heard at a conference, she hired the presenter, Ian Lockwood, to head the City’s newly established Transportation Planning division. She provided political support for City staff to implement a wide range of traffic calming efforts across the community, paying significant attention to requests from neighborhoods desiring traffic calming. The mayor even worked with a Florida House of Representatives member to lobby Congress to allow Intermodal Surface Transportation Efficiency Act (ISTEA) funds to be used for traffic calming.

The Unity Council and its Executive Director were instrumental in organizing neighborhood residents in opposition to the construction of a BART parking garage, which would have separated the neighborhood from the Fruitvale transit station. Today, the neighborhood access is enhanced through the Fruitvale Transit Village. Surface and structured parking are located adjacent to the Transit Village.
Elected officials in University Place initially advocated a roadway design including several roundabouts like the one shown in the image above. Public opposition to the proposed design ultimately led to the removal of the roundabouts, but other design features including extensive landscaping, a central median, sidewalks, and bicycle facilities remained. (Image source: City of University Place).

Elected officials in the Bridgeport Way project also were recognized as champions. Despite significant vocal opposition to the initial roadway design containing several roundabouts, the city council members in this newly incorporated city, moved forward with an innovative design intended to serve the broader interests of the public, prepare for future growth, and create a main street for the new community. They engaged the public through numerous efforts, hired consultants to provide the public with information about the potential impacts of the proposed design, and negotiated with the public, business owners, and other stakeholders to reach a compromise design that met the needs of the public.

In the Emerson Park case, a local community activist and organizer emerged as a local champion. Ceola Davis, a well-known and long-time resident of the community, was central in getting local residents involved in the effort to challenge the initial proposal to locate the transit station outside of the neighborhood and create an alternative station area and TOD design that met the community’s needs. One interviewee noted, that people got involved because Ceola was involved. Her outreach approach, with emphasized personal contact, was essential in this community where the internet and phone are not viable options for many households.
Finally, in the Barracks Row case, the Barracks Row Main Street Association along with its staff was cited as an essential champion in moving the streetscape redesign forward. The non-profit organization effectively represented business owner and public interests, and coordinated with the transportation agency and two branches of the military, and other organized interest groups in the neighborhood and broader community. As an organization, it had the ability to keep the project moving over a long period of negotiation and consensus-building.

These champions maintained community interest in the project, organized additional participants, secured funding, addressed political challenges and community conflicts, coordinated with decision-making authorities, and worked with multiple consultants. While public participants were important in each of these cases, a number of individuals and organizations were essential in ensuring the public had an opportunity to influence the transportation projects and plans.
Clear Sense of the Desired Outcome

A characteristic seen across many of the cases examined in the study was a clear focus on the desired outcomes of the transportation planning and design process. While in general, compromises on small design details often occurred through participatory processes, these projects were often successful because the participants had a clear sense of the most important outcomes that they wanted to see.

For example, in the Emerson Park neighborhood, the EPDC’s previous community planning efforts helped it recognize the impacts of a light rail extension in the neighborhood. While the EPDC and the neighborhood compromised on some details related to station design and pedestrian access, they held to its position that the station be moved and key neighborhood streets remain open. The Fruitvale Transit Village is a similar case, with the Unity Council working diligently with the community to challenge the proposed parking garage and take over major responsibility for planning and designing the transit village. While the specific project design details and site program evolved somewhat as a result of changes in funding from various sources, the broader goals of the project were retained. In doing so, they ensured that...
the TOD project met the needs of residents, promoted efficient transportation access, provided opportunities for business, and included community service providers (e.g. clinic, senior center, library) in the project.

In the Clarendon sector planning process, clarity in the sense of the desired outcome, was provided by previous planning efforts. The concept of the “urban village” was established and familiar to the participants. This allowed the most recent planning process to focus on refining the concept established many years earlier. Previous visioning efforts were important in the Bridgeport Way case, wherein University Place’s vision of the community was as a “safe, attractive city that provides a supportive environment for all citizens to work, play, get an education, and raise families” (Context Sensitive Solutions 2007). Goals associated with this vision included promoting walking, biking, use of aesthetic improvements on roadways, and creation of a mainstreet, each of which is represented in the final roadway design (Context Sensitive Solutions 2007).

While the certainty about desired outcomes came from different sources in these cases, the effects were quite similar. Clarity about the desired outcomes helped the community determine what it should focus on and what it could compromise on. In each of the cases, some compromises occurred as a result of public input. Whether gathered as part of the current project planning and design process or through previous planning efforts, public input helped organizations and agencies make decisions about what could evolve and what should not.

**Political Leadership**

In most of the cases examined in the study, political leadership became essential during at least one phase of the planning and design process for the transportation project. Political leaders worked with the community to achieve key project goals. These leaders helped engage the community, address financial issues, and navigate complicated decision-making processes.

As previously discussed, in the West Palm Beach and Fruitvale Transit Village cases, the political connections at various levels of government held by project champions helped move the projects forward. In both of these cases, the efforts of key leaders in the project helped secure funding and political support to move the projects forward.

Elected officials in a community also exhibited political leadership. As discussed above, in the Bridgeport Way case, the political leadership of the City Council in the face of staunch public
opposition provided a test of the newly incorporated City’s will to push the standards of roadway design in the community. The elected officials worked hard to engage the broader public in the discussion about the design of the roadway, bringing in a wider range of interests to balance out the vocal opposition and bringing in national experts to help the community understand alternative approaches to roadway and its opportunities to help bring the new community together around a transportation project.

In the Clarendon Sector Plan process, the Arlington County Board exhibited leadership in a different manner. By delegating significant authority to the Sector Plan Task Force, the Board gave up some of its authority and allowed representatives of the highly engaged community to lead the planning process. Only reluctantly, when consensus could not be reached within the task force, did the Board step in to facilitate completion of the final details of the plan. This
represented a significant compromise in Arlington County, well known for its highly structured advisory board system and its strong emphasis on participatory decision-making processes.

In the cases in the study, political leadership helped to bring stakeholders together around transportation plans and projects, garner essential financial support, and helped the community make tough decisions about the future. While public involvement is essential in planning and design processes for transportation projects, engagement of elected officials can be especially important as they are intended to represent the broader community’s interests.

**Professional Design Expertise**

In nearly all of the cases studied, the planning and design processes included the use of professionals with design expertise. These design experts played important roles in engaging the public in planning and design processes and communicating about alternative design outcomes.

In the Barracks Row project, landscape architects and traffic consultants built on an early community vision for the streetscape to produce a project that met the needs of automobiles and pedestrians, as well as the various agencies and organizations involved. The project design introduced high-quality streetscape materials and amenities into a previously degraded urban environment and stimulated additional redevelopment and enhancements on private property. Similar effects are seen in the Bridgeport Way case, wherein the enhancements recommended by design professionals produced a roadway design that improved the public realm, but at the same time, influenced decisions and investments of nearby property owners. The pedestrian planning experts helped change the perspectives of staff, elected officials, and the public about roadway design options for the corridor.

Beyond the impacts that experts can have on the physical design aspects of a transportation project or plan, design professionals can have an impact on the transportation planning and design process. In West Palm Beach, the mayor’s decision to hire a traffic calming expert, committed to a community design approach, helped ensure that the public’s interest would be represented in decisions on traffic calming construction. In the Emerson Park case, the coordination with ESLARP helped provide the community with resources and information to be effective participants in decision-making processes outside their neighborhood. In the Bridgeport Way and Clarendon cases, participatory charrette processes facilitated by consultants helped engage the public in the design effort in a more in-depth manner than can be achieved in typical public meetings. In the Fruitvale Transit Village project, design experts collaborated closely with the community to ensure that the design fit the local context, as one interviewee described it, reflecting Hispanic culture and history, but also the rich multi-ethnic environment.
In this excerpt from the West Palm Beach Downtown Master Plan, planning and design experts involved in preparing the Downtown Master Plan provided images to illustrate design alternatives for the urban streetscape, providing a more pedestrian friendly environment, extensive landscaping, buffered on-street parking, and human-scaled lighting. (Image source: City of West Palm Beach)
In the cases examined in the study, professional designers provided design expertise, but perhaps even more important, they collaborated with the public to ensure that the application of design in the transportation project or plan was appropriate to the community and physical context. Many of the experts learned from the participants, and at the same time, shared their expertise in design and process to ensure a high-quality and responsive project outcome.
Visualization

The use of visualization in public involvement efforts took many forms in the cases examined in the study, often being utilized by the professional designers engaged in the project. Visualization efforts helped articulate alternative design visions, convince project opponents, build knowledge among participants, and lend credibility to community preferences for transportation project design.

For example, visualization efforts that included altered photographs showed design scenarios for the Bridgeport Way project. In addition, the pedestrian planning consultants utilized images from numerous other communities to illustrate design options for the community, including the proposed roundabouts. These efforts were important in building community knowledge and support around alternative approaches to roadway design.

In the Emerson Park station area planning process, proposed designs for the station and surrounding areas developed in collaboration with the ESLARP students gave the EPDC credibility when it approached the transit agencies about moving the station. The designs helped to illustrate the vision for the station area, capturing community input and communicating it to local and regional decision-makers.

In the Clarendon sector planning process, one of the public participants was a key contributor. Using photos of the station area, he altered them to include buildings and other features to illustrate proposed plan content. Visualization was also facilitated during the charrette process, wherein multiple images from other communities were used to stimulate participants to think about potential solutions to address current design challenges and opportunities in the station area. The outcomes of the charrette process, including maps highlighting key concerns and opportunities, were important in organizing public input to inform the ongoing planning and design process. Further, the Clarendon Sector Plan document includes a number of visuals, including maps, photographs, and sketches to illustrate existing conditions and proposed planning concepts.

Because of the extensive implementation of traffic calming throughout the city, in West Palm Beach, visualization efforts often involved visiting alternative street design approaches used in other parts of the city. During the on-street meetings with neighborhoods, visualization efforts also included spray painting of the locations of proposed traffic calming improvements.
Visualization of proposed enhancements on Bridgeport Way in University Place, WA, was key to allowing participants to understand how existing conditions (as shown in the photo above) could be modified to include the landscaped median and boulevards, multi-modal enhancements, lighting, and roadway alignment. These features are illustrated in the lower photo through computer generated visualization. (Photo source: City of University Place)
Conclusions
While the best practices identified above provide a number of suggested approaches for achieving effective public involvement in planning and design processes for transportation projects, it is important to remember that there is not a prescription for public involvement that can be applied in every case. Each of the projects examined in this study was incredibly unique. In large measure, what made these projects and their public involvement successful was that those facilitating the processes were cognizant of local conditions. They understood local politics, engaged key stakeholders in multiple ways, brought in design experts to supplement local knowledge, and were creative in tailoring the design solutions to the site and neighborhood context. Without the public’s input, including participants who both challenged and supported the projects, the outcomes identified above would not have been the same.

Before and after photos from neighborhood and downtown locations in West Palm Beach. The top photo shows the addition of a chicane and the bottom provides details of streetscape improvements including new landscaping, underground utilities, new lighting, and the use of pavers on sidewalks, parking areas, and the roadway. Visualization efforts used in planning for traffic calming often involved meetings on streets and in neighborhoods to discuss the locations and designs. (Image source: City of West Palm Beach)
Streetscape improvements near the Tacoma Dome in Tacoma, Washington, create spaces for the movement of large groups of pedestrians from adjacent parking lots and light rail.
Appendix A

Public Participation Toolbox

The tables below provides a comprehensive list of tools available to achieve various goals of public involvement, including sharing information, compiling and providing feedback, and bringing people together. The lists summarized in the three tables below are adapted slightly from a resource provided by the International Association for Public Participation (IAP2) (2006).

Table 1. Public Participation Techniques to Share Information

<table>
<thead>
<tr>
<th>Participation Tool</th>
<th>Description</th>
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<tbody>
<tr>
<td>Bill stuffers</td>
<td>Information flyer included in monthly utility bill</td>
</tr>
<tr>
<td>Briefings</td>
<td>Use regular meetings of social and civic clubs and organizations to inform and educate</td>
</tr>
<tr>
<td>Central information contacts</td>
<td>Identify and communicate with designated contacts for the public and media</td>
</tr>
<tr>
<td>Expert panels</td>
<td>Public meetings designed with neutral experts or media interviewing experts representing different perspectives</td>
</tr>
<tr>
<td>Feature stories</td>
<td>Focused media stories on general project-related issues</td>
</tr>
<tr>
<td>Field offices</td>
<td>Office established with prescribed hours to distribute information and respond to inquiries</td>
</tr>
<tr>
<td>Hot lines</td>
<td>Identify a separate phone line for public access to prerecorded project information, or to reach project team members</td>
</tr>
<tr>
<td>Information kiosks</td>
<td>Station where project information is available</td>
</tr>
<tr>
<td>Information repositories</td>
<td>Libraries, city halls, schools, and other public facilities make good locations for project-related information</td>
</tr>
<tr>
<td>Listserves and e-mail</td>
<td>Electronic mailing lists</td>
</tr>
<tr>
<td>News conferences</td>
<td>Promote media events</td>
</tr>
<tr>
<td>Newspaper inserts</td>
<td>A “fact sheet” within the local newspaper</td>
</tr>
</tbody>
</table>
Table 1 (continued)

<table>
<thead>
<tr>
<th>Participation Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press releases and press packets</td>
<td>Provide resource and background information</td>
</tr>
<tr>
<td>Print advertisements</td>
<td>Paid advertisements in newspapers and magazines</td>
</tr>
<tr>
<td>Printed public information materials</td>
<td>Fact sheets, newsletters, brochures, issue papers, progress reports, direct mail letters</td>
</tr>
<tr>
<td>Responsiveness summaries</td>
<td>Provides feedback to the public regarding comments received and how they are being incorporated</td>
</tr>
<tr>
<td>Technical information contacts</td>
<td>Access to technical expertise to individuals and organizations</td>
</tr>
<tr>
<td>Technical reports</td>
<td>Report on research or policy findings</td>
</tr>
<tr>
<td>Television</td>
<td>Programming to present information and elicit audience response</td>
</tr>
<tr>
<td>Websites</td>
<td>Provide information and links to other sites</td>
</tr>
</tbody>
</table>

Table 2. Public Participation Techniques to Compile and Provide Feedback

<table>
<thead>
<tr>
<th>Participation Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comment forms</td>
<td>Mail-in, Web-based, or email forms gather public concerns or preferences</td>
</tr>
<tr>
<td>Computer-based polling</td>
<td>Online surveys</td>
</tr>
<tr>
<td>Community facilitators</td>
<td>Use qualified individuals in community organizations to conduct project outreach</td>
</tr>
<tr>
<td>Delphi processes</td>
<td>Method of obtaining agreement by a group without face-to-face meeting</td>
</tr>
<tr>
<td>In-person, mail, telephone, or Web-based surveys</td>
<td>Uses standardized methodology to collect public input from random or targeted sample</td>
</tr>
<tr>
<td>Interviews</td>
<td>One-on-one meetings with stakeholders</td>
</tr>
</tbody>
</table>
Table 3. Public Participation Techniques to Bring People Together

<table>
<thead>
<tr>
<th>Participation Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charrettes</td>
<td>Intensive sessions where participants design project features</td>
</tr>
<tr>
<td>Citizen juries</td>
<td>Small group of ordinary citizens selected to learn about an issue, cross-examine witnesses, and make a recommendation</td>
</tr>
<tr>
<td>Coffee klatches - kitchen table meetings</td>
<td>Small meetings within neighborhoods, usually at a person’s home or local restaurant</td>
</tr>
<tr>
<td>Computer-assisted meetings</td>
<td>Use interactive computer technology to register opinions during a meeting</td>
</tr>
<tr>
<td>Fairs and events</td>
<td>Central event with multiple activities to provide project information and raise awareness</td>
</tr>
<tr>
<td>Fishbowl processes</td>
<td>A meeting where decision-makers do their work in a “fishbowl” so that the public can openly view their deliberations</td>
</tr>
<tr>
<td>Focus groups</td>
<td>Message testing forum with randomly selected members of target audience</td>
</tr>
<tr>
<td>Future search conferences</td>
<td>Focuses on future of an organization, network of people, or community</td>
</tr>
<tr>
<td>Meetings with existing groups</td>
<td>Small meetings with existing groups or in conjunction with another group’s event</td>
</tr>
<tr>
<td>Ongoing advisory groups</td>
<td>Group of representative stakeholders assembled to provide public input to the planning process</td>
</tr>
<tr>
<td>Open houses</td>
<td>An open house encourages the public to tour at its own pace; the facility is set up with several information stations, each addressing a separate issue, with resource people guiding participants through the exhibits</td>
</tr>
<tr>
<td>Panels</td>
<td>Group assembled to debate or provide input on specific issues</td>
</tr>
<tr>
<td>Public hearings</td>
<td>Formal meetings with scheduled presentations, including members of the public individually stating opinions that are recorded</td>
</tr>
<tr>
<td>Public meetings</td>
<td>Organized large-group meeting usually to make presentation and give the public an opportunity to ask questions and give comments</td>
</tr>
<tr>
<td>Revolving conversations (Samoan Circles)</td>
<td>Leaderless meeting that stimulates active participation among all participants</td>
</tr>
<tr>
<td>Symposia</td>
<td>Meeting to discuss a particular topic involving multiple speakers</td>
</tr>
<tr>
<td>Task forces - expert committee</td>
<td>Group of experts or representative stakeholders formed to develop a specific product or policy recommendation</td>
</tr>
<tr>
<td>Tours and field trips</td>
<td>Provide guided and self-guided tours for key stakeholders, elected officials, advisory group members, and media</td>
</tr>
<tr>
<td>Town meetings</td>
<td>Group meeting format where people come together as equals to share concerns</td>
</tr>
<tr>
<td>Web-based meetings</td>
<td>Meetings that occur via the Internet</td>
</tr>
<tr>
<td>Workshops</td>
<td>Informal public meeting that may include presentations and exhibits, ending with interactive working groups</td>
</tr>
<tr>
<td>World cafes</td>
<td>Meeting process featuring a series of simultaneous conversations in response to predetermined questions; participants change tables during the process and focus on identifying common ground in response to each question</td>
</tr>
</tbody>
</table>
Pedestrian pathway along the Milwaukee River in Milwaukee’s redeveloping Third Ward district near downtown.
References


Thinking Beyond the Pavement Conference. 1998. Core Principles of CSS. http://www.contextsensitivesolutions.org/content/topics/what_is_css/core-principles/.


