



# **MAKING A GOOD FIRST IMPRESSION: IMPROVING PREDESIGN AND ENVIRONMENTAL PUBLIC INFORMATION AND PUBLIC INVOLVEMENT**

## **Final Report 579**

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## SI\* (MODERN METRIC) CONVERSION FACTORS

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in	inches	25.4	millimeters	mm	mm	millimeters	0.039	inches	in
ft	feet	0.305	meters	m	m	meters	3.28	feet	ft
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## GLOSSARY OF ACRONYMS

AzDOT	Arizona Department of Transportation
CCP	Communications and Community Partnerships Section
DOT	Department of Transportation
NAACP	National Association for the Advancement of Colored People
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
TDD	Telecommunications device for the deaf

## EXECUTIVE SUMMARY

Current federal transportation legislation (including the National Environmental Policy Act<sup>1</sup>) and responsible practice create considerable responsibility for state departments of transportation and metropolitan planning organizations to provide public information and public involvement to a diverse community and to obtain feedback, which satisfies legal mandates and results in improved planning and project development. The four main domains of public participation are informing people, involving people, getting feedback, and applying special techniques. An important area of performance for the Arizona Department of Transportation (AzDOT) is predesign and environmental public information and public involvement. The growing population in Arizona requires a constant roadway construction and maintenance effort that naturally includes public participation during planning and implementation. The purpose of this project is to conduct an analysis of public information and public involvement structures and functions.

This study examines data collected from employees of AzDOT and other transportation agencies who have experience with public information and public involvement. The overall nature of the responses to the internal survey suggests that AzDOT employees are dedicated to providing the best public information and public involvement services that are possible and are interested in additional opportunities and resources to improve these services wherever possible. AzDOT employees are sensitive to the barriers to effective public information and public involvement, including those unique to tribal communities, and consistently seek to improve public information and public involvement. Information provided by external respondents was consistent with that provided by internal respondents. Responses provided by external respondents provided insight into channels for public information and public involvement, channels for public feedback, issues specific to tribes and other special populations, and measuring the success of public information and public involvement efforts. The following are recommended to improve public information and public involvement structures and functions:

- Improve project level and department level funding. Project level funding should include allocations for the Communications and Community Partnerships Section (CCP) services and improvements in departmental level funding will support the development of relationships that transcend and survive any individual project.
- Increase use of the Internet. Increases in broadband Internet connectivity make it more feasible to post large documents and maps for the public to download.
- Increase cultural competence with tribes. Successfully communicating public information and public involvement to tribal communities requires continuously maintaining strong relationships with these communities to build trust and respect.
- Establish global and local performance measures. Global performance measures should reflect the mission of CCP while local performance measures should be tailored to the unique characteristics of individual projects.

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<sup>1</sup> National Environmental Policy Act of 1969, as amended. Pub. L. 91-190, 42 U.S.C. 4321-4347.

- Provide technical training to CCP staff. If CCP staff members are going to be the primary source of public information and public involvement, they must be knowledgeable about the fundamentals of transportation engineering.
- Provide communication training to non-CCP staff. Although many AzDOT staff members are not formally responsible for public communication, it is not possible to completely prevent instances where public speaking skills are required.
- Increase CCP's responsiveness. This could be accomplished by establishing CCP responsiveness performance measures and hiring additional staff if needed to achieve those performance measures.
- Decentralize CCP staff. Locating staff in each district office would provide district staff with immediate access to CCP staff and would provide CCP staff with more insight into local issues.
- Leverage CCP performance measures. Existing CCP performance measures and performance reporting should continue to be utilized and adapted as needed to determine the type and extent of additional needed public information and public involvement resources.



## INTRODUCTION

Current federal transportation legislation entitled Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires state departments of transportation and metropolitan planning organizations to “provide citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan.”<sup>2</sup> In addition, the National Environmental Protection Act<sup>3</sup> requires that transportation agencies examine and avoid potential impacts to the social and natural environment when considering approval of proposed transportation projects. These requirements, as well as responsible practice, creates considerable responsibility for state departments of transportation and metropolitan planning organizations to provide public information and public involvement to a diverse community and to obtain feedback that satisfies legal mandates and results in improved planning and project development.

Involving community members in planning and project development is a major challenge for transportation agencies. This challenge can be met by following basic guidelines for improving public information and public involvement. The first, and perhaps most important guideline, is the recognition that public involvement requires the active participation of the public. Once this involvement is established, it must be maintained through continuous contact between staff and the community, including special efforts that target special segments of the population. This involvement is best maintained through a variety of techniques that search out the public and encourage feedback on transportation projects. Finally, the effort should focus on activities to make decisions rather than activities to fulfill an obligation to involve the public.

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<sup>2</sup> P.L. 109-59 § 6001(i)(5)(A).

<sup>3</sup> National Environmental Policy Act of 1969, as amended. Pub. L. 91-190, 42 U.S.C. 4321-4347.



## **PUBLIC INFORMATION AND PUBLIC INVOLVEMENT PROCESSES**

The Federal Highway Administration at the U.S. Department of Transportation operates the Transportation Planning Capacity Building Program.<sup>4</sup> This program was designed to help decision makers, transportation officials, and staff to resolve the increasingly complex issues they face when addressing transportation needs in their communities. This comprehensive program for training, technical assistance, and support is targeted to state, local, regional, and tribal governments; transit operators; and community leaders. The current best practices in public information and public involvement for transportation agencies are cataloged by this program and are reviewed here.<sup>5</sup> The four main domains of public participation are informing people, involving people, getting feedback, and applying special techniques.

### **INFORMING PEOPLE**

A successful public involvement effort is predicated on effective communication. Effective communication is necessarily two-way, and public participation must include the identification of an audience, the communication of information, the solicitation of feedback, and the incorporation of that feedback into transportation plans. Such an effort requires an organization to establish a systematic, but flexible approach to providing and obtaining information from the public. Informing the public requires attention to three important topics: underserved populations, core groups, and communicating information.

#### **Underserved Populations**

Ethnic, minority, and low-income groups can face economic and cultural barriers to engaging in the public participation process. The Virginia Department of Transportation takes the initiative by including the National Association for the Advancement of Colored People (NAACP) on community advisory committees.<sup>6</sup> In addition, a number of transportation agencies (e.g., the City of Huntsville, Alabama) encourage the involvement of underserved populations by advertising meetings and other public involvement events in minority publications.<sup>7</sup>

Other barriers can be created by disabilities. Federal laws such as the Americans with Disabilities Act and the Rehabilitation Act require the involvement of and provision of information to those with disabilities.<sup>8,9</sup> Like many transit service providers, the Spokane, Washington, Transit Authority employs “Rider Alert” and paratransit programs to increase the involvement of those with disabilities by providing information and transportation services tailored for the disabled.<sup>10</sup> The California Department of

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<sup>4</sup>U.S. Department of Transportation. (2004). Transportation Planning Capacity Building Program Annual Report Fiscal Year 2004.

<sup>5</sup> U.S. Department of Transportation. (2002). Public involvement techniques for transportation decision-making.

<sup>6</sup> Virginia Department of Transportation. (2002). Route 5 Bikeway Feasibility Study.

<sup>7</sup> City of Huntsville, Alabama. (2005). Public Involvement Plan for Transportation Planning in the Huntsville Urbanized Area.

<sup>8</sup> 42 USC 12204.

<sup>9</sup> 29 USC 794.

<sup>10</sup> Spokane Transit Authority. (2006). 2005-2006 Report to the Community.

Transportation makes the state's long-range transportation plan available in Braille, large print, on audiocassette, and computer disk.<sup>11</sup> During meetings, the City of Los Angeles, California, provides sign language interpreters, assistive listening devices, and adaptive equipment for those who need it.<sup>12</sup>

## Core Groups

One approach to engaging the public's participation is to begin with a core group of individuals such as members of community-based organizations. For example, 37 Advisory Neighborhood Commissions in Washington, DC, consisting of elected members, funnel citizen input on transportation and other government services.<sup>13</sup> Focusing specifically on transportation, eight transportation management associations representing public-private partnerships in Colorado address traffic congestion and air quality problems.<sup>14</sup>

Similarly, citizen (or civic) advisory committees are core groups of representative stakeholders who meet regularly to discuss issues of concern to all members. For example, the Metropolitan Washington (DC) Council of Governments utilizes citizen advisory committees consisting of individual citizens and representatives of environmental, business, and civic interests concerned with regional transportation matters as well as representatives of minority, low-income, and disabled groups.<sup>15</sup>

Decision and policy boards are core groups created by statute, regulation, or political decision whose members either make decisions or formulate policies that guide decision making. Metropolitan planning organizations across the nation provide input on issues such as regional transportation and mass transit systems in Portland, Oregon, integrate political and technical engineering issues in central Arkansas, and achieve consensus on binational border planning issues in San Diego, California.<sup>16,17,18</sup>

Unlike other, permanent core groups, a collaborative task force is an *ad hoc* group assembled to deal with a specific task and has a limited amount of time to achieve consensus. Collaborative task forces have been used by the Oregon and Washington departments of transportation to examine alternatives to the Columbia River Crossing on Interstate 5; in Maryland to address the difficult issue of increasing the capacity of the Chesapeake Bay Bridge; and by the Connecticut Department of Transportation to evaluate the condition and operation of commuter rail facilities.<sup>19,20,21</sup>

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<sup>11</sup> California Department of Transportation. (Spring, 2003). California Transportation Plan Newsletter.

<sup>12</sup> City of Los Angeles, California. (2004). Facts about the City of Los Angeles.

<sup>13</sup> Washington, DC, Department of Transportation. (2005). North Capitol Street Transportation Study.

<sup>14</sup> Colorado Department of Transportation. (2005). 2030 Statewide Transportation Plan.

<sup>15</sup> Metropolitan Washington Council of Governments. (1999). National Capitol Region Transportation Planning Board Public Involvement Process.

<sup>16</sup> Metro. (2003). Metro Charter.

<sup>17</sup> Metroplan. (2004). 2004 Central Arkansas Regional Transportation Study.

<sup>18</sup> San Diego Association of Governments. (2007). Otay Mesa – Mesa de Otay Binational Corridor Strategic Plan.

<sup>19</sup> Columbia River Crossing. (Winter 2007, Issue 4). Bridgenews.

<sup>20</sup> Maryland Transportation Authority. (2006). Task Force on Traffic Capacity Across the Chesapeake Bay: Final Report.

## **Communicating Information**

Before the public can participate in transportation projects, they must first receive information about the projects. Mailing lists are commonly used as a foundation for mass communication, such as the 8,000 names maintained by the North Central Texas Council of Governments in Arlington, Texas.<sup>22</sup> However, transportation information can also be distributed to particular segments of the general public utilizing other media, such as the publications, announcements, and Web content in Spanish and other languages provided by the San Diego Association of Governments in San Diego, California.<sup>23</sup>

Community leaders can collect information through key person interviews or provide information through briefings. As a result of key person interviews, the West Michigan Shoreline Regional Development Commission in Muskegon, Michigan, identified five critical elements in the development of an area-wide plan.<sup>24</sup> Briefings can provide comprehensive summaries of transportation planning processes, such as the annual briefing provided by the Indianapolis Metropolitan Planning Organization in Indianapolis, Indiana.<sup>25</sup>

Advancements in video technology increase the usefulness of that channel to communicate information. For example, the Florida Department of Transportation created a high fidelity visual simulation of traffic flow on Interstate 4 to study the effect of additional truck lanes.<sup>26</sup> In the north-central states of Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming, the state departments of transportation are linked to each other as well as four universities (Colorado State University, North Dakota State University, University of Wyoming, and Utah State University) with a video conferencing system.<sup>27</sup>

Speakers' bureaus provide an opportunity to communicate a consistent message on transportation topics. This approach is used by the Baltimore Metropolitan Council in Baltimore, Maryland, to inform the public about topics such as transportation and air quality, the regional transportation planning process, the regional transportation plan, pedestrian and bicycle safety, and demographic and development trends.<sup>28</sup>

## **INVOLVING PEOPLE**

Formal and informal meetings are the foundation of any public participation program. In addition to providing a forum for communication, meetings allow community members to meet the people who represent the transportation agency and allow agency staff to directly respond to comments. The two most important characteristics of face-to-face meetings are the meeting type and the meeting structure.

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<sup>21</sup> Connecticut Department of Transportation. (2005). Connecticut Rail Station Governance Study.

<sup>22</sup> North Central Texas Council of Governments. (2006). 2006 Annual Report.

<sup>23</sup> San Diego Association of Governments. (2005). Public Participation/Involvement Policy.

<sup>24</sup> West Michigan Shoreline Regional Development Commission. (2004). Muskegon Area-wide Plan.

<sup>25</sup> Indianapolis Metropolitan Planning Organization. (2006). 2006 Briefing Paper.

<sup>26</sup> Florida Department of Transportation. (2005). I-4 Corridor Traffic Simulation and Visualization.

<sup>27</sup> Upper Great Plains Transportation Institute. (2002). TEL8: The Development of a Transportation Video Conference Network.

<sup>28</sup> Baltimore Metropolitan Council. (2006). 2006 Annual Report.

## Meeting Type

The type of meeting that is held is determined primarily by its purpose in the larger public involvement effort. Public meetings are optional events that generate informal input from local residents while public hearings are more formal in that they result in a public record of information relevant to the transportation project. Public meetings and public hearings can be linked, as demonstrated by the Wisconsin Department of Transportation in the development of its 2030 regional transportation plan, when local public meetings were followed by public hearings.<sup>29</sup>

Open houses are similar to public meetings in that they are informal, but are different in that there is no agenda. For example, the Washington State Department of Transportation hosted an open house on intercity transit services following the closure of a local transit operator.<sup>30</sup> Likewise, open forum hearings are hybrids of public hearings and open houses, which the Georgia Department of Transportation used to create a shared vision of the state's transportation program.<sup>31</sup>

Conferences, workshops, and retreats are also useful types of meetings. A conference is a structured series of presentations and has been used by the Kansas Department of Transportation for its long-range transportation plan.<sup>32</sup> Workshops are task-oriented meetings, and retreats are workshops held in non-traditional settings to reduce distractions. In 2005 the Washington State Department of Transportation's Agency Council on Coordinated Transportation held a retreat to focus on specific project and legislative priorities for the 2005-07 biennium.<sup>33</sup>

## Meeting Structure

Although transportation agencies determine the meeting type, it is common for meeting participants to determine the meeting structure. One meeting structure, brainstorming, can be effective in shifting participants away from conflict and toward consensus. As currently operationalized, brainstorming sessions are not unstructured discussions but rather freethinking forums such as those utilized by Pierce County, Washington, to brainstorm ideas for projects addressing needs and gaps in transportation services for people who cannot transport themselves due to age, disability, or income.<sup>34</sup>

A charrette is a meeting to address and resolve a specific issue that can last from 4 hours to several days. Accordingly, charrettes are issue-oriented, produce visible results, and increase public involvement in transportation planning. A series of charrettes facilitated by the Regional Planning Council in New Orleans, Louisiana, involving neighborhood

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<sup>29</sup> Wisconsin Department of Transportation. (2007). Connections 2030 Public Participation Plan.

<sup>30</sup> Washington State Department of Transportation. (2005). WSDOT Public Transportation and Rail Division Monthly Report, September, 2005.

<sup>31</sup> Georgia Department of Transportation. (2001). Georgia Department of Transportation Public Involvement Plan.

<sup>32</sup> Kansas Department of Transportation. (2006). Kansas Long Range Transportation Plan Phase 1: Setting the Vision.

<sup>33</sup> Washington State Department of Transportation. (2005). ACCT 2005 Retreat Summary Report.

<sup>34</sup> Pierce County, Washington. (2006). Coordinated Transportation Plan for People with Special Transportation Needs in Pierce County.

residents and stakeholders, was used to evaluate neighborhood transportation problems and possible solutions.<sup>35</sup>

A visioning meeting structure is designed to result in a long-range plan. As an integrated approach to policy development, visioning offers the most inclusive approach to developing long-range plans. Because visioning solicits deep-seated feelings about the future, it highlights the development of policies to get residents involved in important topics such as transportation infrastructure. Many states, including Utah, Idaho, and Oregon, have used the visioning technique to establish long-range goals.<sup>36,37,38</sup>

The limited size (less than about 20 members) of small groups facilitates the active participation of each member. Small groups can include workshops, seminars, community juries, roundtables, and study circles that make larger meetings more productive. A variety of agencies have demonstrated the effectiveness of small groups, including the San Francisco County Transportation Authority in San Francisco, California, and the San Diego Association of Governments in San Diego, California.<sup>39,40</sup>

## **GETTING FEEDBACK**

Successful communication will generate feedback, and both positive and negative feedback inform the planning and implementation of transportation projects. Feedback also helps measure the public's understanding of transportation issues and what information is needed to increase that understanding. The key components of this public participation effort are providing information and getting feedback.

### **Providing Information**

Before community members can give informed feedback on transportation projects, they must be provided with information about those projects. On-line services provide information on a 24-hour basis and advances in mobile information technology are allowing consumers to access information outside their homes and offices. Web sites that offer information ranging from existing road conditions to transportation planning, such as that hosted by the Tennessee Department of Transportation, are commonplace.<sup>41</sup>

Hotlines provide a channel of real-time communication for transportation agencies to provide information to the public. Hotlines are usually staffed during normal business hours and many provide toll-free access for long-distance callers. Some hotlines, such as the one provided by the Tri-County Metropolitan Transportation District of Oregon, also support a telecommunications device for the deaf (TDD) for the hearing impaired.<sup>42</sup>

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<sup>35</sup> Regional Planning Commission. (2005). Public Involvement Plan.

<sup>36</sup> Utah Department of Transportation. (2007). UDOT Long Range Transportation Plan 2007-2030.

<sup>37</sup> Idaho Department of Transportation. (2004). Idaho's Transportation Vision: 2034.

<sup>38</sup> Oregon Department of Transportation. (2006). Oregon Transportation Plan.

<sup>39</sup> San Francisco County Transportation Authority. (2007). Tenderloin-Little Saigon Neighborhood Transportation Plan.

<sup>40</sup> San Diego Association of Governments. (2006). A Commitment to Regional Priorities: SANDAG Annual Report 2006.

<sup>41</sup> Tennessee Department of Transportation. (2004). Report to Tennesseans: Biennial Report 2003-2004.

<sup>42</sup> Tri-County Metropolitan Transportation District of Oregon. (2006). Tri-County Elderly and Disabled Transportation Plan.

Drop-in centers, whether in storefront or mobile operations, provide yet another outlet for transportation information. Drop-in centers can be a convenient source of information to consumers as well as being a visible commitment to the community. In addition, drop-in centers can be used to overcome barriers between agencies and communities, as was experienced by the California Department of Transportation during an access and circulation study.<sup>43</sup>

### **Getting Feedback**

After the public has been provided transportation information, feedback must be obtained. Even with opportunities to provide feedback at meetings and forums, some people may be reluctant to voice their opinions. The small and informal nature of focus groups can be effective in eliciting public opinion on transportation issues and still produce a written record of input. For example, the New Jersey Department of Transportation conducted a series of focus groups to obtain consumer feedback during the development of a long-range transportation plan.<sup>44</sup>

While focus groups tend to have less structure, surveys tend to have more structure. Surveys can be administered with paper and pencil in person or by mail, with interviews in person or by telephone, and electronically over the Internet. Surveys are often employed with other techniques (e.g., stakeholder interviews, workshops, and public meetings) to achieve consensus, such as when the Michigan Department of Transportation prepared its long-range transportation plan.<sup>45</sup>

It is not surprising that not all feedback is consonant and disagreements must be resolved. Facilitation is managed by a facilitator with the consent of the participants and can be used to guide a group through a consensus building process. For example, facilitation was used by design advisory teams to resolve issues between the Pennsylvania Turnpike Commission and communities that were impacted by the Mon-Fayette Expressway.<sup>46</sup>

If facilitation is not successful in resolving differences, then negotiation and mediation may be in order. Nevertheless, negotiation and mediation follow a problem solving model rather than an adversarial model. These forms of alternative dispute resolution provide a structured and semi-formal venue for people to resolve disagreements, and are an important element in a partnership agreement between the Wisconsin Department of Transportation, the Federal Highway Administration, and the eleven Federally recognized Indian tribes in Wisconsin.<sup>47</sup>

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<sup>43</sup> California Department of Transportation. (2003). Public Participation Plan for Bishop Area Access & Circulation Study.

<sup>44</sup> New Jersey Department of Transportation. (2001). Transportation Choices 2025.

<sup>45</sup> Michigan Department of Transportation. (2007). Moving Michigan Forward: 2005-2030 State Long-Range Transportation Plan.

<sup>46</sup> Oakland Transportation Management Association. (2006). 2005-2006 Annual Report: Building Community Connections.

<sup>47</sup> Wisconsin Department of Transportation. (2005). Partnership Agreement Between Wisconsin's Eleven Federally Recognized Tribes; Wisconsin Department of Transportation; and Wisconsin Division – Federal Highway Administration.



## **APPLYING SPECIAL TECHNIQUES**

Beyond traditional meetings and processes, special techniques can be applied as circumstances warrant. These circumstances include declining or static participation in meetings, a lack of questions by meeting participants, or doubts that progress is being made. These symptoms of a disaffected public may grow into larger problems that can derail a transportation project and an effective public participation strategy will include techniques to treat this condition. These techniques include holding special events, changing meeting approaches, and finding new communication channels.

### **Holding Special Events**

Special events such as transportation fairs provide opportunities for exposure to transportation information in a fun, low-stress environment. These events focus on visual interest and excitement, multiple exhibits, accessibility by the target audience, and the ability to get feedback from those in attendance. A transportation fair can be an annual event that is heavily promoted to encourage attendance (e.g., the events held in recognition of National Transportation Week) or can be a road show that is held in various locations (e.g., the road shows included in the strategy to create an understanding of and to demonstrate the value of airstrips as one of Idaho's transportation assets).<sup>48,49</sup>

Games and contests provide additional opportunities to facilitate public participation. In addition to providing entertainment, games and contests challenge people to think about different alternatives in transportation planning that they might not otherwise. For example, the Knoxville Regional Transportation Planning Organization in Knoxville, Tennessee, uses a transportation planning simulation game to increase understanding of the transportation planning process.<sup>50</sup> The participants' choices about where to put development in relation to transportation reveals the relationships between land use and transportation, the perspectives of others, and the implications of decisions.

### **Changing Meeting Approaches**

Because meetings are the foundation of any public participation program, they may become dull from overuse. Consequently, improving meeting attendance is a special challenge that can be overcome by making public input count in the decision making process. To maintain high levels of public involvement, the Mid-America Regional Council in Kansas City, Missouri, conducts surveys to identify opportunities to continually engage the public.<sup>51</sup>

Role playing is an activity that encourages active participation in meetings by defining contexts and roles for people to play in those contexts. Because the contexts and roles are hypothetical, participation in a role play is a risk-free experience for participants that exposes them to alternative viewpoints. For example, the New Jersey Department of

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<sup>48</sup> 36 USC 133.

<sup>49</sup> Idaho Transportation Department. (2005). The Idaho Airstrip Network Action Plan.

<sup>50</sup> Knoxville Regional Transportation Planning Organization. (2004). Knoxville Regional Transportation Planning Organization Public Involvement Plan.

<sup>51</sup> Mid-American Regional Council. (2001). Mid-American Regional Council Transportation Department Public Involvement Plan.

Transportation used role playing exercises to explore the facets of transportation planning during its long range transportation plan education program.<sup>52</sup>

Additionally, site visits allow the public to engage in the transportation planning process by traveling to project areas. Site visits also improve agency credibility and give participants a common frame of reference. Sioux City, Iowa, included site visits into the planning process for Vision 2020 where its Task Force took a citywide bus tour.<sup>53</sup> Task force members were able to view issues in all parts of the city as a group and agency staff reported that the site visits were a valuable overview of local concerns.

### **Finding New Communication Channels**

New communication channels are emerging on a regular basis, largely due to advances in information technology. Interactive television and teleconferencing allow participants to meet virtually face-to-face across long distances without the need for travel. Interactive video displays and kiosks in public areas are also useful communication channels because many people are familiar with this technology from their experience with automatic teller machines.

Improvements in computer graphics make computer presentations, geographic information system mapping, and three-dimensional visualization practical for most transportation agencies. Computer presentations of digitized photography, video brochures, and video simulations attract attention through color, movement, and sound. Geographic information systems allow users to develop custom maps by merging layers of spatial information. Similarly, three-dimensional visualization allows projects to be rendered in life-like presentations before construction ever begins.

As an extension of three-dimensional visualization, visual preference surveys allow a community to determine how a transportation project will affect its overall image by comparing implementation alternatives through sketches and pictures. Instant voting technology, such as that used by marketing firms, allows voters to cast ballots on a large number of topics and allows agencies to automate the ballot counting and reporting process. Mark-up software also allows participants to record their preferences by electronically marking up project plans with notes and questions. And finally, remote sensing technology is useful in collecting data for use in geographic information systems.

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<sup>52</sup> New Jersey Department of Transportation. (2006). Transportation Choices 2030: New Jersey's Statewide Long-Range Transportation Plan Education Program.

<sup>53</sup> City of Sioux City. (2005). Sioux City Comprehensive Plan.

## **IMPROVING PREDESIGN AND ENVIRONMENTAL PUBLIC INFORMATION AND PUBLIC INVOLVEMENT**

An important area of performance for AzDOT is the predesign phase. This phase occurs before the design of the roadway is undertaken and involves an environmental assessment, disseminating public information and conducting public involvement sessions. The growing population in Arizona requires a constant roadway construction and maintenance effort that naturally includes public participation during planning and implementation. Previous research has established the importance and success of AzDOT's construction communication efforts, and extending this line of research into predesign and environmental public information and public involvement will further improve AzDOT's performance.<sup>54</sup>

The purpose of this project is to conduct an analysis of public information and public involvement structures and functions. AzDOT has historically concerned itself with improving transportation decision making by maximizing public involvement. The analysis of public information and public involvement structures and functions that is handled by CCP is designed to fulfill this organizational priority.<sup>55</sup> The AzDOT organizational unit primarily responsible for public involvement is CCP. The structure of CCP (see Appendix 1) includes a wide variety of positions to provide communication and develop community partnerships. About 65% of AzDOT's \$4.6 million predesign budget is allocated to external consultants who work on projects across the state and the remaining 35% of the budget is allocated to the cost of internal staff and the services they provide.

An interview with a senior member of the CCP staff revealed an ironic series of events that limits the ability of CCP to provide needed services. Previously, public involvement funding and activities were determined on a project-by-project basis. The creation of CCP was intended to capitalize on the increased level of service that a more centralized public involvement unit could provide. However, the structural reorganization was not followed by a budgetary reorganization. That is, CCP was provided with a minimum funding for staff, but very little funding to deliver services. Meanwhile, projects no longer received specific allocations for public involvement. Funding that had previously been allocated on a project-by-project basis was not shifted to CCP. Accordingly, CCP faces challenges in its ability to provide responsive customer service.

Based on analysis of data collected from those who have knowledge of and experience with public information and public involvement structures and functions, the following research questions will be answered:

- What are the current AzDOT public information and public involvement structures and functions?
- How can the current AzDOT public information and public involvement structures and functions be improved?

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<sup>(54)</sup> Done, R. S. (2004). Improving construction communication. ADOT Report No. FHWA-AZ-04-560.

<sup>(55)</sup> Bailey, K. & Grossardt, T. (2006). Structured public involvement in context-sensitive noise wall design using casewise visual evaluation. *Transportation Research Record*, 1984, 112-120.

Thus, this research project will yield information that can be used by AzDOT to identify and improve public information and public involvement structures and functions. The results will be useful to AzDOT and help maintain AzDOT's position as a leader in public information and public involvement.

## **METHOD**

Internal and external survey instruments were designed to collect quantitative and qualitative data from transportation professions to answer the research questions. These data included numeric, multiple choice, and narrative responses. Respondents were not limited in the extent of detail that they could provide in their responses.

### **Internal Survey**

An internal survey was designed to capture AzDOT's current public information and public involvement structures and functions (see Appendix 2). The internal survey was sent via e-mail on May 22, 2006, to a sample of 81 transportation professionals at AzDOT and other organizations within Arizona. The sample was selected by the technical advisory committee for this project. Two follow-up reminders were sent via e-mail over a 6 week period. Thirty-four surveys were returned via e-mail and four surveys were returned via fax. Two surveys were found to be duplicates and were not included in the dataset.

### **External Survey**

An external survey was designed to assess how current AzDOT public information and public involvement structures and functions could be improved (see Appendix 3). The external survey was sent via e-mail on May 24, 2006, to a sample of 61 transportation professionals at organizations outside Arizona. Two follow-up reminders were sent via e-mail over a 6 week period. Fourteen surveys were returned via e-mail and two surveys were returned via fax. Two surveys were found to be duplicates and were not included in the dataset.

## **RESULTS**

The contents of the completed internal and external surveys were extracted into separate data files for analysis. Quantitative and multiple response data were subjected to statistical analyses and qualitative data were subjected to content analyses. This section describes the results of the respective analyses.

### **Internal Survey**

Respondents to the internal survey ( $n = 36$ ) reported years of employment in the field of transportation ranging from 0 to 44, with an average of 17.2 years and a standard deviation of 11.4 years. These respondents also reported years of employment with AzDOT ranging from 0 to 41, with an average of 13.5 years and a standard deviation of 10.2 years.

Almost all (97%) of the respondents described their best experience with the public and the primary cause of this experience (see Table 1). The single most commonly (39%) reported best experience with the public was a public meeting. Public involvement techniques (e.g., workshops, citizens' advisory teams, charrettes, and facilitated work groups) were reported by 17% of the respondents. The least commonly reported best

experiences with the public were personal communication (6%) such as telephone and e-mail; and media events (6%) such as speaking engagements and dedication ceremonies. The remaining respondents (31%) did not provide a specific description of their best experience with the public.

**Table 1. Best Experiences with the Public**

Experience	%
Public Meeting	39
Public Involvement	17
Media Events	6
Personal Communication	6
Other (unspecified)	31

*Note. Percentages may not sum to 100 due to non-response and/or rounding error.*

Respondents reported a wide variety of causes for the positive nature of their best experience with the public, such as:

- Allowing the public to view displays and ask questions before a presentation.
- Engaging the public through charrettes and facilitated work groups.
- Meeting with people that would be affected by the project on a one-on-one.
- Presenting technical information in an understandable format.
- Allowing ideas and concerns to be expressed in a casual and upfront way.

Most (94%) of the respondents described their worst experience with the public and the primary cause of this experience (see Table 2). As with best experiences, the single most commonly (41%) reported worst experience with the public was a public meeting. Public involvement processes (e.g., consensus building, dialogue, special interest groups) were reported by 15% of the respondents as being their worst experience with the public. Experiences with collaborators (e.g., consultants, political leaders, and other institutional entities) were reported by 9% of respondents as being their worst experience with the public. Personal communication (e.g., profanity, abuse) was reported by 6% of respondents as being their worst experience. The remaining respondents (29%) did not describe a specific worst experience with the public.

**Table 2. Worst Experiences with the Public**

Experience	%
Public Meeting	41
Public Involvement	15
Collaboration	9
Personal Communication	6
Other (unspecified)	29

*Note. Percentages may not sum to 100 due to non-response and/or rounding error.*

Respondents reported a wide variety of reasons for the negative nature of their worst experience with the public, including:

- Difficulty in explaining complicated technical issues to lay audiences.
- Pre-existing misconceptions based on misunderstanding or misinformation.
- Low levels of attendance at public meetings and presentations.
- Public perceptions that AzDOT is not responsive to public input.
- Anger and frustration created by consultants and political leaders.

It is important to note that comments on the involvement of collaborators such as consultants and political leaders in transportation projects were not universally negative. Some respondents reported decidedly positive experiences with consultants under very difficult circumstances. Other respondents commended consultants for their professionalism in handling volatile situations involving an emotional public.

Respondents were asked what tools or resources they need to improve their communication with the public, and almost all (97%) provided an answer (see Table 3). The most common theme that emerged from the responses was that of AzDOT's CCP office. About one-fifth (22%) of respondents reported that the resolution of issues with CCP is the single most important tool or resource needed to improve their communication with the public.<sup>56</sup> The primary frustration specified by respondents was that the CCP staff does not provide public communication support in a timely manner. Another frustration among respondents is the centralized nature of CCP and the additional delays and miscommunication created by routing public communication from the field to the central office and back out to the field again.

Enhanced Internet technology was identified by 17% of respondents as being needed to improve communication with the public. According to these respondents, enhancements are needed on both AzDOT's intranet and Internet websites. Examples of enhancements provided by respondents include increasing the availability of project plans, descriptions, updates, and changes; increasing the interactivity and navigability of the Internet website; and constantly updating the intranet and Internet websites with the most current information. Courses or other training in public speaking were identified by 11% of respondents as being needed to improve their public communication skills. Finally, the remaining 31% of respondents identified the need for a variety of tools and resources that would increase attendance at public meetings, track public comments about specific projects, increase funding to support public communication, and communicate the correct information to the correct audience.

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<sup>56</sup> One individual refused to complete the survey, citing frustration with CCP.

**Table 3. Tools or Resources Needed to Improve Public Communication and Public Involvement**

Tools or Resources	%
Timely Support from CCP	22
Enhanced Internet Technology	17
Public Speaking Courses	11
Other	31
None	19

*Note. Percentages may not sum to 100 due to non-response and/or rounding error.*

Respondents were also asked how the lack of these tools or resources resulted in poor communication with the public. This question was answered by 89% of respondents, and the remaining 11% of respondents noted that this question was not applicable to them. Among respondents who indicated that issues with CCP resulted in poor communication with the public, the primary cause of the poor communication was the delay in responding to the public. In some instances, there was no response to the public. Some respondents noted that public communication is confounded because the technical staff has the knowledge to provide the most complete and accurate information but lack the communication skills to do so, while the CCP staff has the requisite communication skills but lack the technical background to provide meaningful information to the public. Alternatively, even if technical staff members have both the knowledge and the communication skills to convey that knowledge, they are required to channel public communication to CCP. This requirement can then result in the delayed (or nonexistent) communication described previously.

The lack of more fully developed intranet and Internet websites has resulted in poor communication with the public for a number of reasons. The primary reason is the interrupted or discontinued communication caused by the need to locate information that is only available on hard copy or that is stored electronically but only locally. The inaccessibility of this information is especially acute for the public in rural areas who may rely on the Internet for a larger share of their communication than the public in urban areas. In addition, the unavailability of some information on the AzDOT intranet requires staff in rural districts to postpone accessing information until their next trip to Phoenix. One respondent noted that improving the AzDOT website with a regularly published newsletter would result in more fluid communication with the public, rather than accumulating information in more formal, but less frequently, published public information and public involvement documents.

Other respondents reported that the lack of public communication training prevented them from conveying their intended message and that they experienced frustration and anger when they were not able to successfully communicate with members of the public who firmly believed misinformation that they had been provided. Finally, several respondents noted that the lack of public communication tools and resources which results in delayed or inadequate communication can create anger and suspicion among the public, which, in turn, creates yet another barrier to subsequent communication.

Almost all (97%) of the respondents described how they document public input and what happens to that input (see Table 4). The most commonly reported (33%) method for documenting public input was notes and/or minutes recorded by AzDOT staff at public meetings. Individual correspondence (e.g., letters, e-mail) was the next most commonly reported (11%) method for documenting public input. The difference between documentation through notes/minutes or correspondence was driven by the context of the communication rather than personal discretion. Another 8% of respondents reported that public input was documented through transcription. This transcription was accomplished at public meetings through either on-site stenographers or the meeting was recorded on tape and then later transcribed. Finally, 8% of respondents also reported that public relations consultants documented public input, including observations at meetings, feedback on surveys, and comments on flip charts. The remaining respondent did not describe a specific method for documenting public input.

**Table 4. Public Input Documentation**

Documentation	%
Notes/Minutes	33
Correspondence	11
Transcription	8
Consultants	8
Other (unspecified)	39

*Note. Percentages may not sum to 100 due to non-response and/or rounding error.*

Respondents reported a number of dispositions for documented public input, including:

- Stored in local files.
- Published in reports.
- Posted on AzDOT Internet website.
- Forwarded to supervisor.

Some (11%) respondents reported that public input was not consistently documented or that it was not documented at all. Respondents also described the need for a database to store and manage public input. This database would allow AzDOT staff to sort and categorize public input as it relates to specific projects or issues.

Most (94%) of the respondents described how they provide feedback to the public after input is received. The vast majority of respondents indicated that they use multiple methods and that the particular method of feedback they provided typically depended on the method and/or urgency of the original input. The most common methods included letters (31%), telephone calls (28%), e-mails (28%), and meetings (25%). The least most commonly reported methods of providing feedback to the public after input is received were face-to-face conversation (6%) and the AzDOT Internet website (6%). Other respondents reported that they provide feedback to the public after input is received but did not describe the mechanism for providing the feedback.



The final question on the internal survey was directed to respondents who were tribal representatives. This question probed for opportunities for AzDOT to improve its communication and public information and public involvement process with tribes and was answered by 6% of respondents. However, throughout the survey almost every question was answered by 20% of respondents with experiences and observations while working with tribes. This information is collectively reported here to develop the basis of recommendations for AzDOT to improve its communication and public information and public involvement process with tribes.

Several consistent and overlapping themes emerged from the 20% of respondents who provided information on improving communication and public information and public involvement processes with tribes (see Table 5). Half (50%) of these respondents noted the importance of trust between tribes and AzDOT in order to yield positive transportation outcomes. Two-thirds (67%) of these respondents emphasized the significant roles that protocol, engagement, and communication play during tribal public information and public involvement processes. All of these themes are also important during public information and public involvement efforts with non-tribal communities, but are defined differently among tribal communities (and sometimes even defined differently between tribal communities).

**Table 5. Tribal Public information and Public Involvement**

Theme	%
Trust	50
Protocol	67
Engagement	67
Communication	67

*Note. Percentages do not sum to 100 due to multiple responses.*

In addition to identifying important considerations when providing public information and public involvement to tribal communities, the respondents reported specific tactics that have proven successful during public information and public involvement efforts. The most common tactics were:

- Cultivating trust through a respect for the sovereignty of tribal communities.
- Observing established tribal protocols for meetings and other processes.
- Centering engagement efforts in tribal communities which are often rural or remote.
- Communicating with individuals or groups as indicated by tribal norms.

The themes and tactics identified by respondents are equally important for tribal and non-tribal communities but underscore the importance of cultural competence during tribal public information and public involvement efforts.

### **External Survey**

The external survey was designed to collect information on public information and public involvement methods used by other transportation agencies to provide a benchmark for

AzDOT public information and public involvement efforts and to identify potential opportunities to improve those efforts. The external survey was completed by 13 respondents from other state departments of transportation. Respondents reported state populations ranging from 1.2 to 33.9 million people, with an average of 7.2 million people and a standard deviation of 9.0 million people. Annual expenditures on public information and public involvement were reported to range from less than \$500,000 to more than \$2,000,000 (see Table 6).

**Table 6. Annual Public Information and Public Involvement Expenditures**

Expenditure	%
< \$500,000	29
\$500,001 – 1,000,000	14
\$1,000,001 – 1,500,000	21
\$1,500,001 – 2,000,000	7
> \$2,000,000	29

*Note. Percentages may not sum to 100 due to non-response and/or rounding error.*

All of the respondents indicated how they provide transportation information to the public (see Table 7). All of the respondents reported that they use electronic media (e.g., radio and television) and print media (e.g., newspapers and billboards) to communicate public information and public involvement. Almost all (92%) of the respondents reported that they communicate public information in person at venues such as public meetings and open houses. Other and more specific communication channels were reported, including letters to directly affected landowners, flyers, electronic message boards, booths and kiosks, videos, and speakers' bureaus.

**Table 7. Public Information and Public Involvement Channels**

Channel	%
Do not provide public information and public involvement	0
Electronic media (e.g., telephone, television, radio, web site, e-mail)	100
Print media (e.g., newspaper, billboard, surface mail)	100
In person (e.g., public meetings, open houses, focus groups)	92
Other	38

*Note. Percentages do not sum to 100 due to multiple responses.*

Respondents were also asked which of the communication channels is the most effective and why it is the most effective. Electronic media was identified as the most effective communication channel by 38% of respondents who favored it because it can reach many people with current (potentially real-time) information. Almost one-quarter (23%) of respondents indicated that providing information in person was the most effective communication channel. For these respondents, communicating in person was favored above other channels because it is effective when building relationships, provides opportunities to get specific questions addressed, establishes rapport and credibility with the public, and humanizes the department of transportation. Some respondents (15%) reported that print media is the most effective communication channel. These respondents reported that newspapers often have transportation beat writers while television news

may provide little coverage of transportation issues unless they are controversial. In addition, other forms of print media (e.g., direct mail) can be directed to a specific target audience. Finally, 23% of respondents noted that no single channel is universally effective for communicating public information and public involvement. Instead, for these respondents a combination of channels was reported to be the most effective strategy for public information and public involvement. A combination of channels can be the most effective approach for reaching the most people, and the particular combination of channels could depend on the characteristics of the target audience or the type of transportation project.

All of the respondents indicated how they receive feedback from the public (see Table 8). All of the respondents reported that they use electronic media (e.g., telephone and e-mail) to receive feedback from the public. Almost all (92%) of the respondents indicated that they receive feedback from the public in person (e.g., public meetings and focus groups) and through print media (e.g., surveys and comment cards). Other specific feedback channels were reported, including comment forms at public meetings, letters to the editor, telephone surveys, and a toll free telephone number posted at construction projects across the state.

**Table 8. Feedback Channels**

Channel	%
Do not receive feedback from the public	0
In person (e.g., public meetings, open houses, focus groups)	92
Electronic media (e.g., telephone, e-mail)	100
Print media (e.g., surveys, comment cards)	92
Other	31

*Note. Percentages do not sum to 100 due to multiple responses.*

Respondents were also asked which of the feedback channels is the most effective and why it is the most effective. Print media was identified as the most effective feedback channel by 38% of respondents, who favored it because large volumes of data can be collected, quantified, measured, and subjected to statistical analyses. Almost one-quarter (23%) of respondents indicated that electronic media was the most effective communication channel. For these respondents, electronic media was favored above other channels because it provides the opportunity for immediate and specific feedback from the public. Some respondents (15%) reported that feedback received in person was most effective because it allowed department of transportation (DOT) representatives to personalize the feedback experience for the public and acknowledge that feedback. Other channels (e.g., community task forces) were identified by 8% of respondents. Task forces can provide feedback that is more representative of the general public than members of the public who initiate feedback by attending public meetings. Although both task forces and public meetings provide the opportunity for individualized feedback, attendance at public meetings may be motivated by anger or frustration and thus result in feedback that is not representative of the general public.

Almost all (92%) of the respondents indicated how their agencies communicate with tribes or other special populations (see Table 9). Less than one-tenth (8%) of respondents reported that they do not target communication to tribes or special populations. About one-quarter (23%) of respondents indicated that they communicate with tribes or special populations through formal religious or faith groups. Slightly more than two-thirds (69%) of respondents report that they communicate with tribes or special populations through formal community or civic groups. Less than half (46%) of respondents indicated that they communicate with tribes or special populations through translators, bilingual speakers, or consultants. The same percentage of respondents indicated that they communicate with tribes and special populations through other channels, including special liaison staff, formalized communication processes, and tribal governments.

**Table 9. Tribal and Special Population Communication Channels**

Channel	%
No targeted communication with tribes or special populations	8
Through formal religious or faith groups	23
Through formal community or civic groups	69
Through translators, bilingual speakers, or consultants	46
Other	46

*Note. Percentages do not sum to 100 due to multiple responses.*

Respondents were also asked how they measure the success of the public information efforts (see Table 10). More than three-quarters (77%) of respondents indicated that they measure public information and public involvement success with satisfaction surveys. Conversely, 61% of respondents reported using the number of complaints received as a measure of public information and public involvement success. Slightly more than half (54%) of respondents indicated that they use focus groups or small meetings to collect data on the success of their public information and public involvement efforts. Other techniques and measures of success were reported by 38% of respondents, including information provided by consumers on a toll-free telephone line, comment cards distributed at public meetings and mailed after project completion, and the establishment of success criteria customized to individual projects.

**Table 10. Public Information and Public Involvement Success Measures**

Measure	%
No measure of public information and public involvement success	0
Satisfaction surveys	77
Focus groups or small meetings	54
Number of complaints received	61
Other	38

*Note. Percentages do not sum to 100 due to multiple responses.*

Respondents were also asked which of the success measures is the most effective and why it is the most effective. Satisfaction surveys were identified as the most effective success measure by 46% of respondents who noted that the resulting data can be anonymous, quantifiable, and project specific. Slightly less than one-third (31%) of respondents reported that comprehensive satisfaction criteria (including baseline measures) established before each project are the most effective because the target audience can be effectively integrated into the public information and public involvement efforts. A reduction in the number of complaints received was identified by 8% of respondents as the most effective measure of public information and public involvement success as an indication that the public information and public involvement was effectively communicated.

Finally, respondents were asked how satisfied (silent) customers are identified and how feedback is obtained from them. Slightly less than one-third (31%) of respondents reported that they use surveys to identify and obtain feedback from satisfied customers. Likewise, 31% of respondents indicated that they identify satisfied customers through proactive community based public information and public involvement efforts and that feedback is obtained through a variety of channels that are tailored to specific public information and public involvement campaigns. Focus groups and individual communication (e.g., e-mail, telephone, etc.) were each reported by 8% of respondents as techniques for identifying satisfied customers.



## SUMMARY OF FINDINGS

A number of conclusions can be drawn from the results of the survey administered to internal respondents (who had an average of more than 17 years of experience in the field of transportation). The best public information and public involvement experiences were public meetings and other public involvement events. Given the prevalence of public meetings and events in public information and public involvement efforts, these experiences could have emerged as the most positive due to the mere frequency with which they occur rather than their capacity for producing positive public information and public involvement experiences. The reasons provided for the positive experiences provide insight into the characteristics of positive experiences, whether they are with groups or individuals. The reasons suggest that positive experiences are more likely to occur when the public is allowed to assimilate information about a project in an informal, self-paced environment; when the public understands the information, and when public interaction is on an individualized basis.

The worst public information and public involvement experiences were also public meetings and other public events. This result supports the possibility that the frequency of public meetings and events is responsible for these public information efforts being reported as being the best (and worst) public information and public involvement experience rather than their capacity (or lack thereof) for positive public information and public involvement experiences. Nevertheless, the reasons provided for the negative experiences are not necessarily the opposite of the reasons provided for the positive experiences. Although one reason was the difficulty of explaining complicated technical issues to lay audiences, the other reasons reflected barriers to the communication of public information and public involvement, such as pre-existing misconceptions about the project, pre-existing misconceptions about AzDOT, and intermediation by third parties (e.g., consultants and political leaders.).

Timely responsiveness from AzDOT's Communication and Community Partnerships section was the most frequently identified resource or tool needed to improve communication with the public. The lack of timely responsiveness has resulted in delayed responses to the public, and in some instances, no response at all. Almost as frequently mentioned were resources for improved Internet technology to provide the most current information to the public. The lack of adequate Internet technology prevents the public from independently accessing information and requires staff to take the time to locate the information, which may not exist in an electronic format. The lack of other resources, such as courses or other training in public speaking, techniques to increase attendance at public meetings, and tools to track public comments about specific projects, has resulted in additional barriers to the communication of public information and public involvement.

Public input is most often documented in notes or minutes by AzDOT staff at public meetings and contained in local files, reports, and the AzDOT website. As with the best and worst public information and public involvement experiences described previously, this result may be an artifact of the prevalence of public meetings relative to other public information and public involvement efforts. This possibility is consistent with the frequency of other reported forms of public input documentation such as correspondence,

transcription of live or taped input, and the use of consultants. While input was most often received at meetings or other collective venues, feedback to the input was provided through a variety of methods ranging from individual (e.g., correspondence and telephone calls) to collective (e.g., meetings and the AzDOT website). The choice of feedback channel depends primarily on the channel or urgency of the original input.

The distribution of responses based on experiences with tribes suggests that many more AzDOT employees have experience in communicating with tribes than are formally assigned to communicating with tribes. The majority of respondents noted the importance of cultural competence in the successful provision of public information and public involvement to tribal communities. Many of the concepts (e.g., trust, protocol, and communication) important to tribal public information and public involvement efforts are also important to other public information and public involvement efforts, but are defined differently by (and sometimes between) tribal communities. Thus, cultural competence is of paramount importance to successful public information and public involvement efforts with tribes.

A number of conclusions can also be drawn from the results of the survey administered to external respondents. Although it may seem intuitive that annual public information and public involvement expenditures would have a meaningful relationship with state population, this was not the case. The correlation coefficient between state population and annual public information and public involvement expenditures was 0.17, suggesting that other differences between states (e.g., public information and public involvement extensiveness) are more important drivers of public information and public involvement expenditures.

All of the external respondents reported using electronic media (e.g., radio and televisions) to communicate public information and public involvement. Electronic media was also identified as an effective communication channel due to its scope and currency, but neither it nor any other channel was found to be the most effective communication channel by a majority of the respondents. Others found that in person communication is the most effective because of its capacity to build trust and credibility with the public. Some respondents reported print media such as newspapers to be the most effective because their content tends to be more deliberate than television or direct mail. Respondents feel this is the most effective because it can be directed at a specific target audience. Perhaps most importantly, a number of respondents noted that no single channel is necessarily the most effective and a combination of channels should be selected based on a totality of the circumstances.

Similarly, all of the external respondents reported using electronic media (e.g., telephone and e-mail) to receive feedback from the public due to its specificity and currency, but neither it nor any other channel was found to be the most effective feedback channel by a majority of the respondents. Feedback was also commonly received in person through public meetings and focus groups, and in print media through surveys and comment cards. In person communication allows feedback to be personalized and print communication allows large volumes of data to be managed and analyzed. Although public meetings and focus groups represent a collective feedback process, focus groups



can have the advantage of producing feedback that is generally representative of public sentiment, while public meetings may produce feedback that is representative of only extreme public sentiment.

Not all respondent jurisdictions include tribal communities. However, those that do include these communities use a variety of channels to communicate public information and public involvement. Most respondents use formal community or civic groups to communicate with tribal communities, but other channels are also commonly used. For example, translators, bilingual speakers, and consultants are frequently used, as are other channels such as special liaison staff, formalized communication process, and tribal governments. The least most commonly reported channel for communicating with tribal communities was formal religious or faith groups.

Finally, the majority of external respondents reported measuring the success of their public information and public involvement efforts (including from silent satisfied customers) with satisfaction surveys because they can be used to collect data that is anonymous, quantifiable, and focuses on a specific project. External respondents also frequently use the number of complaints received as an indicator of their public information and public involvement success, as these can also be quantified and measured. Focus groups are also used by many respondents to obtain a more balance measure of success than might be available at public meetings, especially for satisfied (silent) customers.



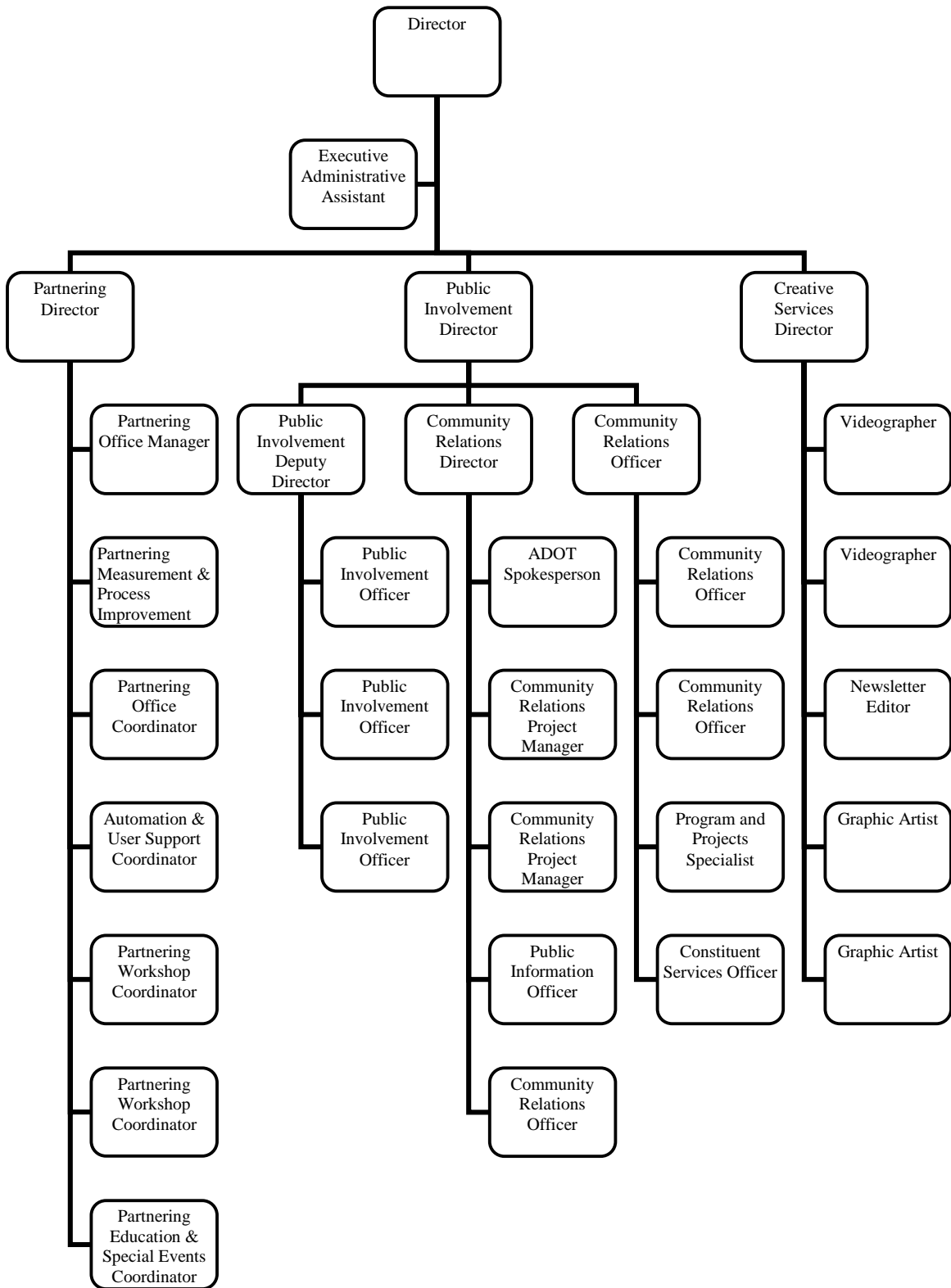
## RECOMMENDATIONS

AzDOT engages in public information and public involvement efforts that are consistent with federal transportation legislation and responsible practice. The overall nature of the responses to the internal survey suggest that AzDOT employees are dedicated to providing the best public information and public involvement services that are possible and are interested in additional opportunities and resources to improve these services wherever possible. Public information and public involvement is provided by AzDOT through a variety of channels and provides ample opportunity for the public to provide feedback on the transportation issues at hand. This feedback is acknowledged, documented, and responded to as appropriate. AzDOT employees are sensitive to the barriers of effective public information and public involvement, including those unique to tribal communities, and consistently seek to improve public information and public involvement. The following recommendations, indicated by data collected with the internal and external surveys, represent some opportunities for improvement:

- Improve project level and department level funding. Project level funding should include allocations for CCP services. Improvements in departmental level funding will support the development of relationships that transcend and survive any individual project.
- Increase use of the Internet. The increase in broadband Internet connectivity makes it more feasible to post large documents, drawings, and maps for the public to download.
- Increase cultural competence with tribes. Successfully communicating public information and public involvement to tribal communities requires continuously maintaining strong relationships with these communities with trust and respect.
- Establish global and local performance measures. Since there currently are no performance measures applied to CCP's functions, it is recommended that global performance measures be established to reflect the mission of CCP and local performance measures be established to reflect the unique characteristics of individual projects.
- Provide technical training to CCP staff. If the CCP staff is going to be the primary source of public information and public involvement, it must be knowledgeable about the fundamentals of transportation engineering.
- Provide communication training to non-CCP staff. Although many AzDOT staff are not formally responsible for public communication, it is not possible to completely prevent instances where public speaking skills are required.
- Increase CCP's responsiveness. This could be accomplished by establishing CCP responsiveness performance measures and hiring additional staff if needed to achieve those performance measures.
- Decentralize CCP staff. Locating staff in each district office would provide district staff with immediate access to CCP staff and would provide CCP staff with more insight into local issues.



## APPENDIX 1 – AZDOT CCP ORGANIZATION CHART





## **APPENDIX 2 – INTERNAL SURVEY**

### **SPR579**

#### **Making a Good First Impression: Improving Predesign and Environmental Public Information and Public Involvement**

##### Internal Survey

My name is Robert Done and I am conducting a study sponsored by the Arizona Transportation Research Center for the Communications and Community Partnerships division of the Arizona Department of Transportation. The purpose of this study is to identify opportunities for improving the public information and public involvement process.

You are being asked to participate in an interview because of your background and experience with transportation and public information and public involvement. All information you provide will be anonymous and nothing will be reported in a way that could identify you. If you have questions or comments about this survey then you can call John Semmens at the Arizona Transportation Research Center at (602) 712-3137.

Please think about your public information and public involvement experience when you answer the following questions:

1. How many total years have you been employed in the transportation field?
2. How many of those years have been with the Arizona Department of Transportation?
3. Describe your best experience with the public and the primary cause of this experience.
4. Describe your worst experience with the public and the primary cause of this experience.

Please think about your current public information and public involvement responsibilities when answering the following questions:

5. What tools or resources do you need to improve your communication with the public?
6. Describe how the lack of these tools or resources resulted in poor communication with the public.
7. How do you document public input and what happens to that input?
8. How do you provide feedback to the public after input is received?

Question for tribal representatives only:

9. How can the Arizona Department of Transportation improve its communication and public information and public involvement process with your tribe?





## APPENDIX 3 – EXTERNAL SURVEY

### SPR579

#### **Making a Good First Impression: Improving Predesign and Environmental Public Information and Public Involvement**

The Arizona Transportation Research Center (ATRC) is conducting a study for the Communication and Community Partnerships division of the Arizona Department of Transportation. The purpose of this study is to identify opportunities for improving the public information and public involvement process.

You are being asked to participate in a survey because of your background and experience with transportation and public information and public involvement. All information you provide will be anonymous and nothing will be reported in a way that could identify you. If you have questions about this survey, you can contact John Semmens at the ATRC at (602) 712-3137 or [jsemmens@azdot.gov](mailto:jsemmens@azdot.gov).

1.a. How do you provide public information and public involvement?

*Mark ALL that apply.*

- Do not provide public information and public involvement
- In person (e.g., public meetings, open houses, focus groups)
- Electronic media (e.g., telephone, television, radio, web site, e-mail)
- Print media (e.g., newspaper, billboard, surface mail)
- Other (please describe):

1.b. Which of the above methods would you say is most effective?

1.c. Could you briefly describe why you feel this method is the most effective?

2.a. How do you receive feedback from the public?

*Mark ALL that apply.*

- Do not receive feedback from the public
- In person (e.g., public meetings, open houses, focus groups)
- Electronic media (e.g., telephone, e-mail)
- Print media (e.g., surveys, comment cards)
- Other (please describe):

2.b. Which of the above methods would you say is most effective?

2.c. Could you briefly describe why you feel this method is the most effective?

3.a. How does your agency communicate with tribes or other special populations?

*Mark ALL that apply.*

- No targeted communication with tribes or special populations
- Through formal religious or faith groups
- Through formal community or civic groups
- Through translators, bilingual speakers, or consultants
- Other (please describe):

3.b. Which of the above methods would you say is most effective?

3.c. Could you briefly describe why you feel this method is the most effective?

4.a. How do you measure success of public information and public involvement efforts?

*Mark ALL that apply.*

- No measure of public information and public involvement success
- Satisfaction surveys
- Focus groups or small meetings
- Number of complaints received
- Other (please describe):

4.b. Which of the above methods would you say is most effective?

4.c. Could you briefly describe why you feel this method is the most effective?

5.a. What is your service area?

*Mark only ONE.*

- City
- County
- State
- Other (please describe):

5.b. What is the approximate total population of your service area?

6. How much does your agency spend per year on public information and public involvement?

*Mark only ONE.*

- < \$500,000
- \$500,001 – 1,000,000
- \$1,000,001 – 1,500,000
- \$1,500,001 – 2,000,000
- > \$2,000,000

7. How do you identify satisfied (silent) customers and obtain feedback from them?