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FERRY PARKING AND LANDSIDE ACCESS STUDY

Implementing Public Outreach and Impact Assessment

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ABSTRACT

The focus of this paper is public outreach in transportation planning, particularly in terms of socio-economic and community impact assessment. Through federal regulations, MPOs are mandated to perform public outreach and impact assessment. Although there are some established parameters, there is a wide range in the quality and effectiveness of public outreach efforts, and in many instances, information dissemination becomes the central focus of public outreach efforts. However, information dissemination, while essential, is not as effective as a two-way process of public involvement, where members of the public have opportunities to provide feedback to shape agency initiatives.

Using research conducted for the Ferry Parking and Landside Access Study (Landside Access Study), this paper will describe the best practices in public outreach that focuses on socio-economic and community impact assessment. The Landside Access Study represents a dedicated effort by the New York metropolitan region's MPO to approach planning for waterborne services using a comprehensive, land-use based approach. With emphasis on land use criteria, the focus is on people and impacts, rather than the traditional demand analysis seen in past ferry studies. By acknowledging regulatory shortcomings and outlining a plan for implementing public outreach and impact assessment, the success of consensus building is likely. Based on discussions set forth in this paper, practitioners are encouraged to examine the effectiveness of their own public outreach and impact assessment methods.

INTRODUCTION

Background

The goal of the Ferry Parking and Landside Access Study (Landside Access Study) (1) is to assist the New York Metropolitan Transportation Council (NYMTC), the New York metropolitan region's metropolitan planning organization (MPO), in the assessment and evaluation of both current and future potential sites suitable for the development of facilities to support waterborne transportation. The Landside Access Study began in December 2006 and has an anticipated completion date of September 2008. What is perhaps the most significant aspect of the Landside Access Study is that it represents a dedicated effort to approach planning for waterborne services using a comprehensive, land-use based approach. Specifically, the study aims to optimize underutilized marine transportation resources and services through:

- Review of previous research about waterborne transportation needs of the region;
- Development of criteria to assess the viability of existing and potential sites that can be used for the development of facilities and infrastructure to support waterborne transportation; and
- Evaluation and prioritization of sites for development through public outreach and impact assessment.

The Landside Access Study region, Figure 1, encompasses the ten counties of the NYMTC region, including New York City, Long Island, and the lower Hudson Valley; an area of 2,440 square miles (6,320 square kilometers) and a population of 11.3 million, approximately 65 percent of New York State's population. The Landside Access Study has been conceptualized to emphasize public outreach and impact assessment, both essential to achieve project goals. Although public outreach and impact assessment are now considered a routine part of transportation planning, these processes are not well documented (2), and often criticized for lack of effectiveness. Mere attempts to provide project information can sometimes masquerade as public outreach efforts, and such attempts do not incorporate public opinion into impact assessment decision-making in a meaningful way. As such, MPOs continue to face a variety of challenges in engaging public involvement (2).

This paper attempts to address the process of public outreach and impact assessment in the Landside Access Study. The first section of this paper includes an overview of the waterborne transportation network in the New York metropolitan region. It is evident that as population and congestion grow and communities forecast their planning efforts, the transportation network will need to be expanded. Ferries provide a feasible opportunity to do this.

The next section discusses public involvement in transportation planning. Federal regulations mandate public outreach and impact assessment. However, although the parameters are set, the effectiveness of public outreach is often marginal, at best due to the complexity the transportation network, as well as the extensive nature of associated impacts.

Next, impact assessment, as a vehicle for public outreach, is discussed. This section includes an overview of impact assessment, including best practices. In the Landside Access

Study, criteria were extracted from an exhaustive literature review and series of expert interviews. This matrix of criteria provides the structure for a geographic information system (GIS) database and a point of departure for impact assessment.

Finally, the plan for implementing public outreach and impact assessment for the Landside Access Study is outlined. Specifically, parameters are identified to set guidelines for effectiveness. Identifying the targeted extent for public outreach and impact assessment and the tools selected for these processes are influential in consensus building.

Based on discussions set forth in this paper using the example of the Ferry Parking and Landside Access Study, practitioners are encouraged to examine their own public outreach and impact assessment methods, in terms of effectiveness, and adjust accordingly. Perhaps most significant is the need for adaptability in public outreach and impact assessment methods. There is no 'one fit' methodology. However, understanding the premise behind the regulations, intent and methodology allows sound practice and mutual partisan support.

FERRY SERVICE IN THE NEW YORK METROPOLITAN REGION

Transportation system alternatives are critical to the New York metropolitan region. New York City mayor Michael Bloomberg, addressed transportation issues, in the recently published *PlaNYC – A Greener, Greater New York* (3). Mayor Bloomberg states, “Transportation has always been the key to unlocking New York’s potential.... New York’s growth has always depended on the efficiency and scale of its transportation network (3).” He continues that for the last fifty years, New York has underinvested in its most critical transportation asset – transit.

Although the New York metropolitan region is the most transit intensive region in the United States, accounting for one-third of mass transit usage and two-thirds of commuter rail ridership in the United States (4), mass transit systems are aging and overcrowded. New York lags behind strong global competitors, such as London, Singapore, and Tokyo, who have recognized that providing more transit options creates a cleaner, healthier, more efficient urban environment and have subsequently invested adequate monies in improving transit (3). In contrast, with every travel mode congested, New Yorkers experience some of the longest commutes in the nation. Of all large counties in the United States, 13 of the 25 with the longest commutes times are in the New York area (3).

Waterborne Transit

New York must expand its transit network for these reasons, and waterborne transportation is a viable approach to do so. New York City has one of the world’s premier waterfronts, with a total of 578 miles (930 kilometers). Furthermore, the New York metropolitan region has 100 percent of New York State’s Atlantic coastline. As such, with a unique geography featuring waterways lining the region, central business districts in close proximity to the waterfront, and a population base requiring improved mobility the continued growth of ferries are a feasible answer to the serious transportation issues that currently exist (5). More than 32 scheduled routes, Figure 2, are now in operation by four private operators and the Staten Island Ferry Division of the New York City Department of Transportation (6). Over 5 percent of trans-Hudson commuters currently

make their daily trip to work by boat, and this number continues to grow (6). Moreover, there is general consensus that expanded ferry service could help connect various points on the waterfront in a more direct way than the current network of bridges and tunnels (6).

The next sections discuss public involvement processes in transportation planning and impact assessment, including the plan for implementing public involvement for the Landside Access Study.

PUBLIC INVOLVEMENT IN TRANSPORTATION

Public Involvement, as defined by the Transportation Research Board Committee on Public Involvement in Transportation, is the process of two-way communication between citizens and government by which transportation agencies and other officials give notice and information to the public and use public input as a factor in decision-making (7). Perhaps the most critical component of public involvement is the latter element, as public involvement is oftentimes implemented in a one-way process, informing citizens of transportation planning efforts, but not gathering feedback, recording public response, or allowing for public influence in decision-making. This feedback allows planner to accurately assess the level of understanding the public has on a particular project. A positive signal occurs when the public begins to supply useful and insightful comments regarding a proposed activity (8).

As socio-economic, environmental, and community impacts move to the forefront of planning process, and project delays and lawsuits serve as examples to practitioners, infrastructure planning efforts are shifting to an approach of effective public involvement. As such, the Committee on Public Involvement in Transportation's White Paper outlines objectives of public involvement including consensus building, informing the public about transportation issues, and decision-making that best reflects the interests of stakeholders (7).

Federal Regulations

In addition to the Transportation Equity Act for the 21st Century (TEA-21) (9) and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) (10), on August 10, 2005, President Bush signed the transportation law Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (11). SAFETEA-LU provided \$286.4 billion in guaranteed funding for federal surface transportation programs over five years through fiscal year 2009, including \$52.6 billion for federal transit programs – a 46% increase over transit funding guaranteed in TEA-21. Also significant to this new transportation law is the requirement for public involvement in transportation planning efforts. SAFETEA-LU expands the responsibilities of the regional and state transportation planning process, by setting requirements and monies for MPOs and states to fully consider a range of options to achieve the objectives of the planning process. Alternative transportation and development scenarios, created with public involvement, are tested to find the plan that best serves planning objectives (12).

SAFETEA-LU requires the aggregate impacts of all projects in a regional plan to be considered, and the analyses of cumulative impacts be performed by the MPO as part of the

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development of the long-range plan are considered by implanting agencies as part of project environmental reviews (12). Through SAFETEA-LU, the development of a formal public participation plan was required by July 1, 2007.

New York Metropolitan Transportation Council

In response to these federal regulations, NYMTC has made concerted efforts to find better ways to interact with the people in the NYMTC region. In working towards regional transportation priorities that focus on five key areas, including increased mobility, reduced congestion, improved air quality, enhanced economic viability, and improved quality of life NYMTC strives to ensure that future transportation investments reflect the interests and concerns of those who are most impacted (13). NYMTC's public involvement program has evolved significantly over the past decade through integration into all aspects of the planning process.

Early public participation procedures, adopted by NYMTC in September 1994, have evolved into a multi-faceted course of action that involves as many people as possible in the regional transportation planning process. As described in NYMTC's 2007 Public Involvement Plan, public participation operates at three levels – regional, sub-regional, and local (13), and includes many avenues for involvement.

Landside Access Study

The Landside Access Study is indicative of NYMTC's commitment to public outreach with multiple publics or stakeholders. The Landside Access Study approaches planning through a comprehensive regional lens. The multi-faceted approach analyzes existing and potential ferry sites through several layers. The first step was a literature review to examine historical studies, with the goal of understanding the criteria were used to inform siting decisions. The literature review was followed by a series of interviews with experts in the NYMTC region to gather additional information on ferry sites and services to develop a set of screening criteria for ferry parking and landside access.

The interviews began in February of 2007. Though the focus of the interviews was on the issue of landside access, questions were also asked regarding: 1) each interviewee's role and connection to waterborne transportation; and 2) each interviewee's opinion on the place of waterborne transportation in the regional transportation system. In addition, interviewees were asked for assistance in providing or locating data to be used in a GIS data repository for subsequent task work.

Eleven interviews were conducted. However, in some cases, more than one individual was present at a session, and therefore, a total of nineteen people were interviewed. Among those interviewed was a private operator of a ferry service, the executive director of a publicly-operated water transit system, the executive director of a non-profit organization concerned with waterborne transportation, and several planners, policy analysts, and decision-makers at the local, county, regional, and State levels. These interviewees were chosen based on experience in waterborne transportation. In addition, in most cases one interviewee would suggest another interviewee, initiating a snowball-like affect.

Interviewees agreed that increasing the availability of waterborne transportation would provide benefits to the region. Continued growth in population and employment is projected in the New York metropolitan area (3). Most roads are severely congested, even outside peak hours. Likewise, many mass transit systems are at capacity during peak hours. Thus, developing new and extending existing waterborne transportation systems is viewed by all as a necessity, if the region is to remain economically competitive.

Interviewees saw the reduction in traffic congestion and the concomitant environmental improvements as the primary benefits to be obtained from the increased use of ferries. Other benefits were mentioned by more than one of the respondents. For example, ferries could prove extraordinarily useful for evacuation purposes in the event of a disaster, human or natural. This was clearly demonstrated after the tragic events of September 11th and during the 2003 Blackout.

Moreover, as population increases and available land becomes more and more scarce, the transformation of New York's waterfront is evident. All along the New York waterfront, apartment buildings are rising and land is being rezoned to accommodate new housing, many of which are planned to be affordable to middle-income families (3). In addition, waterfront land is being converted into esplanades and parks. More than 60 miles (96.6 kilometers) of largely-abandoned waterfront land is being reclaimed for recreation and new communities. However, some of these neighborhoods lack the basic transportation infrastructure required for sustainable growth. In some residential areas, the nearest subway stop is more than three-quarters of a mile (1.2 kilometers) away, and where there is service the trains and buses are increasingly overcrowded with growing numbers of commuters (3).

Interviewees identified the new residential and mixed-use development adjacent to, or within proximity to waterfronts in many parts of the region. The provision of ferry service can help promote these developments, and likely reduce the need for other types of transportation infrastructure. As such, ferry service is a marketing tool for residential development because prospective residents can walk to the ferry and travel to work and other destinations.

In addition, ferry service, when coordinated with land use planning, can provide the opportunity to create transit-oriented development. This is evident in New Jersey communities such as, Jersey City, Weehawken, and Hoboken, and Brooklyn communities such as Shaffer Island with waterfront and transit activities. In addition, areas such as the Village of Haverstraw, in Rockland County, New York, began to experience a revitalization of its downtown and adjacent waterfront and responded by building improved ferry service to further attract residential and retail activity. The City of Newburgh, in Orange County, New York, also followed suit, by developing its waterfront and providing a transit link across the Hudson River. Indicative of this relationship between transportation and land use planning, the Landside Access Study focuses on landside criteria in the selection of potential new ferry services.

Finally, ferry service is seen by several respondents as an important tool to contribute to the revitalization of Lower Manhattan. The newly instituted service between Yonkers and lower Manhattan was undertaken primarily for this reason.

It is important to note that this paper is a report of work in progress. In the coming months, the Landside Access Study team will generate a list of potential sites. Once a short list

of potential sites has been identified, public outreach will assess community impacts and work towards consensus building. In doing so, a challenge will be incorporating the appropriate target area and ensuring that outreach is both extensive and exhaustive. Conversations with the public will help confirm that the site meets community needs, community acceptance for the development of a particular site, and ensure that the viability of a particular site or location has not been overlooked. In doing so, it is critical that environmental justice be considered and public outreach represents the public at-large.

The benefit of public outreach on several layers allows both structure and flexibility. Structure is important, as outlined through the Structured Public Involvement process. Unstructured public involvement, which is essentially more meetings, with the same people, and using the same methods (14) often generates undesirable results. How can the public really be engaged to provide input in a haphazard outreach program? However, the word structured should not be taken to represent inflexibility or strategic control of the goals of public involvement; rather, structure provides the framework for the planners' role in the process (14). To be effective, public outreach must also be flexible. The public is a dynamic entity and in order to reach various constituents, planners must be prepared to admit a certain level of adaptation.

IMPACT ASSESSMENT IN TRANSPORTATION

Public involvement is critical to transportation planning, as it provides a vehicle for impact analysis. Similarly, public outreach efforts are strengthened through impact assessment. The origins of impact analysis in transportation projects began with the National Environmental Policy Act of 1969 (NEPA), however the process continues to develop through various laws, publications, and events. In particular, community impact assessment (CIA) considers items of importance to people, such as mobility, safety, employment effects, relocation, and isolation throughout the decision-making process by evaluating the effects of a transportation action on a community and its quality of life.

Through NEPA, major federal actions are required to be evaluated in an interdisciplinary manner. However, there is one very important element of NEPA that is often lost amidst the scientific analyses of an environmental impact statement (EIS). The government must listen to the public and build two-way communication. While the decision ultimately lies in the hands of government officials, agencies must make an effort to inform and gather comments from stakeholders (15). As the Supreme Court found in *Robertson v. Methow Valley Citizens Council*,

“NEPA does not mandate particular results, but simply prescribes the necessary process. Other statutes may impose substantive environmental obligations on Federal agencies, but NEPA merely prohibits uninformed—rather than unwise—agency action (15).” (*Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989) at 350-351)

Decades later, however, studies have shown that many citizens feel agencies have adopted a policy of one-way communication, ignoring what the public actually has to say (16).

The consequences of transportation investments on communities have often been disregarded or introduced near the end of a planning process, reducing them to reactive considerations at best. Avoiding this scenario is inherently the premise of the Landside Access Study. With emphasis on land-based criteria, the focus is on people and impacts, rather than a traditional demand analysis. Without community support, and subsequent consumer demand, a ferry landing site and service would surely fail.

Transportation investments have major influences on society, with significant economic and social consequences. Impact analysis informs affected communities and residents, as well as transportation decision-makers to the likely consequences of a project, and ensures that human values and concerns receive proper attention during the planning process. Specifically, according to the Community Assessment Handbook (17), community impacts include:

- Quality of life;
- Responsive decision-making;
- Coordination; and
- Nondiscrimination.

Best Practices

According to best practices set forth in the CIA Handbook (17), one of the first steps in incorporating CIA into a project is project identification. Community impact analysts should take a strong role in defining the project in the early phases of project development. Based on their understanding of community values and issues, analysts should take an active role in providing input into a project's purpose and need and developing project alternatives (17). Through tasks 1 and 2, the Landside Access Study reviewed previous studies, including public opinion and discussed public opinion with interviewees. Furthermore, consultation with the steering committee focused on the perception and demand of represented areas.

In continuing with CIA best practices, a carefully selected study area is critical, as each technical analysis (i.e., air quality, traffic, noise and wetlands) may have its own individual study area. Community impact analysts should identify a geographic region, which incorporates the communities directly affected by the project based on scoping, public involvement, and interagency coordination (17), which would include the project study area, and extend beyond it. In fact, the community impact study area typically includes communities within and immediately surrounding the project study area.

Moreover, a study performed as an exploratory analysis of 15 public involvement experts' experiences, attitudes, and beliefs about this critical process concluded in four generalizations including (18):

- Experts attempt to be as inclusive as possible when choosing publics based on a public's perceived salience and interest in an issue and group composition;
- Issue development directly affects how experts choose publics for public involvement processes;
- Issue development occurs through various methods of communication driven by affected values and beliefs; and

- Improper choices of publics for public involvement processes can lead to failure.

The expansiveness of a study area is particularly evident in transportation projects, and furthermore, waterborne transportation. The catchments for ferry service are both small and large, depending on the transportation mode of arrival. Ferry origins and destinations can be serviced by pedestrian, vehicular, and public transit traffic. This adds to the complexity and potential community impact of adding ferry service. While roadway projects often serve a broad population, many of whom can readily accommodate changes in travel routes, ferry projects with smaller catchments, providing service to pedestrians, frequently have direct impacts on a very specific population that are highly sensitive to changes in the transportation network and level of service (19).

To effectively consider impacts – social, economic, environmental, and community – the Landside Access Study is comprehensive, geographically, as well as a transportation model. Similar to the Rhode Island *Waterborne Transportation Plan* (20), the Landside Access Study planning efforts are within the larger regional transportation network. The Rhode Island plan emphasized the intermodal aspects of the region’s transportation system, focused on the efficient use of resources, and related the development of waterborne transportation to other regional goals (20). Although previous ferry studies in the region have focused on specific sites based on anticipated demand of specific services, the Landside Access Study is all-inclusive, and from its commencement all sites are considered equally as they relate to waterborne transportation criteria. Thus, the Landside Access Study takes a regional perspective in planning for waterborne transportation.

Landside Access Study Preliminary List of Criteria

Before describing those criteria deemed important, several of the respondents from the expert interviews distinguished between two types of sites – origin sites and destination sites. The former are where passengers board a ferry (typically the home-based end of a trip), and the latter are where passengers disembark (typically the work-based end). In some cases, the landside access criteria are different for each type of site.

At the origin end, the main criterion mentioned was accessibility, i.e., “How can ferry passengers get to the point of departure?” For most of the currently operating systems, a large percentage of passengers arrive by automobile. Using an automobile would also be likely for many of the prospective sites. Some interviewees referred to this mode of access as “park-and-sail”. Road access and the availability of parking are essential. It is critical to have sufficient area to build surface parking, or a parking structure large enough to meet the projected demand for the service. This would be a prerequisite for instituting service from many areas.

There are other ways to get to an origin site than by motor vehicle. Respondents frequently mentioned mass transit, particularly bus. However, very small numbers on the current systems use this mass transit option. In order for a mass transit system to attract ridership there must be sufficient population density at the origin. If the catchment area of a proposed site does not have the density, public transportation will not work and vehicle parking spaces are a necessity. There are a couple of exceptions. Many people boarding the ferry in Staten Island

arrive by bus, and the New York Waterway service from Hoboken Terminal has many passengers arriving by New Jersey Transit trains. However, many of the respondents felt that services starting up in the future would not have many users arriving by bus. For most proposed origin sites, the catchment areas are large and the population densities are low.

Lastly, walking and biking were mentioned as ways that passengers could get to an origin site. Conventional wisdom in transportation planning says that people will walk or bike no more than 15-minutes to get to a transit stop. This suggests a maximum distance of approximately one-quarter mile (0.40 kilometer) for pedestrians and approximately three miles (4.8 kilometers) for cyclists.

Residential density at the origin end, thus, becomes an important criterion for landside access. The more people who live within walking or cycling distance of a ferry landing, the more might walk or cycle to the landing. This also demonstrates why potential sites for ferry service are also sites where new residential or mixed-use development could take place. The waterfront areas of Williamsburg, Yonkers, Haverstraw, and Weehawken are examples. As such, ferry service is a marketing tool for residential development because prospective residents can walk to the ferry.

The vast majority of ferry passengers in the New York metropolitan area have their workplace as the destination. Most of these passengers commute to midtown or lower Manhattan. Therefore, ferry landings at the destination end must meet one of two important criteria. The first is that the site be within walking distance of a passenger's workplace. The maximum walking distance, as mentioned above, is approximately 15-minutes. Because of its geography, almost any site in lower Manhattan meets this criterion.

For sites where passengers would be heading to midtown, walking might not be feasible. Therefore, ferry sites for passengers destined to mid-Manhattan must have frequent and convenient intermodal connections, including buses and subways. Thus, ferry sites should be developed at locations where bus and subway routes already exist. In terms of bus service, careful planning is necessary to coordinate the development of a ferry site with the institution of new bus service. Some interviewees felt strongly that no sites should be developed at the destination end without inter-agency planning and coordination to have mass transit connections in place before the ferry site and service opens.

In the real world, where decision-making takes place, most planners, policymakers, and even community residents want to examine interaction effects between different sets of criteria. For example, a site may be accessible to neighborhood residents arriving on foot, but the same site may be less accessible to those who come from afar and need a parking spot for their car. To identify a list of potentially viable sites and allow for active engagement about the benefits and limits associated with any single site, the Landside Access Study team seeks to build an interactive GIS-based tool that will allow for end users (decision-makers) to examine how different sites will behave when different criteria or combinations/weights of criteria are applied. The GIS-based interactive tool seeks to use a range of data including but not limited to demographic information, parcel level land use and zoning information, environmental

constraints, community acceptability, as well as modal split data in order to examine individual sites.

IMPLEMENTING PUBLIC OUTREACH AND IMPACT ASSESSMENT

Targeted Public

For effective public involvement processes, practitioners use broad-based formal groups. The steering committee for the Landside Access Study is an example of such a group. This approach brings a “balance to the table,” promoting acceptance and credibility between group members and the outside community. Theorists argue that publics should not select themselves. Instead, practitioners should control the selection process to make sure all groups are represented and that the constituents of a city or community are reflected within the group (18). The steering committee members for the Landside Access Study were selected in this manner based on their representation of the NYMTC region.

The challenge, however, will be selecting the target area for extensive public outreach in areas included on the short list of potential ferry sites to be further analyzed. In this case, experts are inclusive rather than exclusive when choosing publics and creating a pool of interested publics and others. “Casting as wide a net as possible” is important. “One problem that you find when you go into projects is, if you don’t look at a wide enough impact zone, a wide enough stakeholder zone, you will get into the process and you will find out that there’s a gatekeeper, someone who has some authority over some piece of it. If you don’t include them early, then you will get into trouble frequently (18).”

Once the public outreach population is identified, an important objective of a good public involvement process is the extent to which the process builds consensus on the path to decision. In exchange for participation in a fair and open process, citizens often are willing to support the outcome of the process even if their preferred alternative is not selected. This result, sometimes known as “informed consent,” is the desired outcome on highly controversial projects. It allows projects to move forward even though all stakeholder desires are not accommodated (7).

Clearly, there is a necessity to understand how the issue is developing, what underlying affected values and beliefs are driving current communication activities, and the various publics’ perspectives regarding their level of involvement and preferred participation level (18). However, lack of attendance at public meetings, difficulty engaging people in long-range planning, lack of adequate resources, complexity of the issues, and the ever-present NIMBYism (21) can threaten to undo even the most well-conceived transportation plans and projects (2). This again, reiterates the necessity to be adaptive throughout the public outreach process.

Tools

Presentations

The development of the Landside Access Study will extensively involve the public and provide opportunities for participation by private entities with an interest in the subject, as well as by

affected communities and citizen groups. Extensive efforts to disseminate information about planning development and communicate the concepts of the plan will involve the preparation of slide presentations, with talking points, and an outline. A success in presentations is the adaptability to specific audiences (20), and therefore, these presentations will be revised to address the appropriate public group.

In addition, for effectiveness, the presentations will include elements of public involvement, public information, and public relations through keypad polling. Public information will be one-way communication to inform public constituents about the project, its goals, methodology, need, benefits, and impacts. Public relations will involve the dissemination of information with emphasis on the solutions, and public involvement will include both public information and public relations, but with the addition of two-way communication to promote feedback used for decision-making purposes. As such, a public outreach program ideally acts as an ‘honest broker’ (7) – informing, providing opportunities for feedback and mediating differences of opinion.

Keypad polling, an engaging wireless voting technology will be used to enable participation during these presentations and bring a focus to discussion and decision-making. Through hand held keypads, the process of two-way communication is possible. Participants communicate by selecting the number on their keypad that best represents their preference. Radio frequencies project selections to a base station, laptop computer, and finally, a projector. Selections are anonymous and the result of the group is displayed on the projection screen.

Visualization

Multimedia communications technology applications play an increasingly important role in public involvement programs, and can include anything from a website and availability of email addresses to highly realistic three-dimensional animation, multimedia CDs, and interactive kiosks that can be placed throughout communities. These technological tools leverage the ability to reach critical audiences and communicate information in creative and accessible formats (22). Visualization tools are more and more providing the ‘common ground’ upon which consensus and mutual agreement are built (23).

When administered correctly, visualization tools have many benefits. It is imperative that tools present actual information that supports an informed decision-making process. By presenting the full picture, including both positive and negative aspects, a valuable service is provided and credibility is enhanced (22). Furthermore, the content of any tool or publication must be organized so that it is accessible and makes logical sense to public entities. This is especially important for website information, as the average visit to a website lasts less than three minutes (22).

The Landside Access Study currently has a webpage link through NYMTC’s official website that provides basic information about the Landside Access Study including goals, methodology, tasks, and contacts. Email addresses are provided for those involved in the project, so that the public can request more information or provide feedback. In addition, task

deliverables are available on this webpage. As the Landside Access Study continues and additional information becomes readily available, it will be incorporated on the study webpage.

EVALUATING PUBLIC OUTREACH AND IMPACT ASSESSMENT

The previous sections outlined the importance of public involvement in transportation and its role in the Landside Access Study. What seems to be clear of the role of public involvement in transportation is that to ignore the issues and concerns of the public's comments and suggestions is to dismiss the public's very real history and experience with transportation (24). However, the success of public involvement is often difficult to measure (19). Successful public involvement cannot depend entirely on the direct response to the problem; it must involve a substantial element of trust and respect between the stakeholders and the transportation agency (25). Public involvement practitioners assert that public outreach must be applied early and often.

The Landside Access Study is an example of such methodology. Through extensive literature review, the Landside Access Study team engaged in broad sweeping research of waterborne transportation within the study area, as well as other geographic areas. This comprehensive analysis resulted in an understanding of the planning and implementation of ferry services, as well as the public perception. Next, the Landside Access Study facilitated expert interviews, which further probed the planning issues of waterborne transportation. Interviewees were questioned to build a matrix of the criteria underlying waterborne transportation. Such criteria include public acceptance and impact assessment.

Building the right kind of atmosphere for successful public involvement appears to be possible by observing a short list of guidelines, including: inclusion, support from trusted locals, acknowledging impacts, clarity, flexibility, and personal interaction (25), while failure to provide real public involvement might mean loss of public support (24). A major component of the Landside Access Study is the interactive GIS-based tool. As a public involvement tool, the GIS-based tool addresses all of the above guidelines.

The developed GIS-based tool requires data from all involved constituents, which facilitates a 'buy in' from all the NYMTC counties. The GIS-based tool is essentially a customized query interface to run within ESRI's ArcGIS with a premise of clarity, flexibility, and interaction. As a critical element of the Landside Access Study, this tool allows NYMTC to analyze existing or potential ferry sites and vary criteria parameters for further analysis. Moreover, this tool assists decision-makers in understanding the influence of criteria, including community acceptability.

Visualization can compliment the GIS-based tool by creating maps and graphics. In addition, through software, such as Community VIZ, the exhaustive GIS data repository can be visualized, analyzed, and communicated. As the premise of the Landside Access Study is a land-use based approach, Community VIZ is a resource that assists land-use decision-making. Land-use planning scenarios can be visualized in 3-D imaging, environmental, economic, and social impacts can be analyzed, and finally, ideas can be communicated.

CONCLUSION

Through the examination of public outreach best practices that include socio-economic and community impacts, several conclusions can be made. Public outreach, although regulated through several federal mandates, is a reoccurring challenge for planning practitioners. The process set forth in these transportation mandates can provide structure to a public outreach and impact assessment program. However, the nature of the project and communities involved can heavily influence the success of public outreach and impact assessment programs, and consequently the endeavor at hand. As such, adaptability is increasingly important to transportation projects.

Furthermore, by acknowledging regulatory shortcomings and outlining a plan for implementing public outreach and impact assessment, the success of consensus building is likely to increase. The intent of this paper is to serve as a mechanism to push practitioners to examine their own public outreach and impact assessment methods in terms of effectiveness and adjust accordingly. There is no 'one fit' methodology. However, understanding the premise behind the regulations, intent, and methodology allows sound practice and mutual partisan support.

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