

## **Understanding and Managing Conflict in Transportation Project Public Involvement**

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## **ABSTRACT**

The purpose of this project was to understand why public involvement in transportation project planning sometimes fails to reach a resolution that is acceptable to both the agency and the public, and to determine how the process could be modified to reduce the likelihood of this outcome. We address these issues through case studies of both successful and unsuccessful transportation public involvement processes.

We conclude that there are a small number of independent dimensions around which conflict can arise, and that some projects by their nature have a higher level of potential for conflict around one or more of these dimensions. We discuss how the potential for conflict can be anticipated, and how the public involvement process can be modified to better manage conflict and achieve mutually acceptable results.

We develop a model in which conflict can occur in five parameters, each with its own level of intensity or intractability:

- Degree of local benefits or costs
- Disputes regarding the nature and importance of local impacts
- Ability to accurately define and engage relevant stakeholders
- Perceived legitimacy of the project
- Degree of ideological issues

Our conclusion is that each of these parameters needs to be analyzed and the likely level of conflict identified prior to the beginning of the public involvement process, and that the process should be explicitly structured to focus on addressing the high-conflict areas early in the process.

## INTRODUCTION

The subject of this report is the occasional failure of public involvement in the planning of specific transportation projects. For many or even most public involvement efforts, both the agency and the public in general come away satisfied with the results. However, in some cases, either the agency or the public, or both, is not satisfied. Our concern here is understanding why these situations arise, and developing methods for predicting and managing them.

While these problematic projects are a small part of the total, the failure of the public involvement process in these cases is still an important problem for two reasons. First, the odds of major conflict tend to increase with the size and impact of the project; that is, it is more likely to be the big, important projects that suffer from this problem. Thus the significance of failed public involvement is far greater than its frequency would indicate. Second, dissatisfaction on either side resulting from a particular project has the potential to negatively impact future projects as well. An unhappy agency may seek to minimize the role of public involvement in the future, while a dissatisfied public may take out their frustrations through opposition to unrelated, and otherwise unobjectionable projects.

There are a number of case studies in the literature (1, 2, 3) in which significant potential conflict was successfully managed. However, the value of case studies can be limited by the project-specific nature of the discussion. There are likely general principles that are broadly useful, but it can be hard to discern these general principles from situation-specific tactics that might not be as successful elsewhere. Also, there are few if any case studies of efforts that turned out badly. A key question concerns the extent to which success or failure has to do with the execution of the process compared with the nature of the project itself.

One can imagine two different reasons why a public involvement process might go badly. The obvious one is that it is poorly executed for whatever reason; instructional documents and courses exist to try to minimize the likelihood of this, and it appears in fact to be fairly infrequent. A more interesting reason, and the subject of this paper, is that a standard process was followed, but was not appropriate to the situation. That is, situations with high levels of conflict may require a customized approach to public involvement, and the best approach may depend on the specific nature of the conflict being anticipated or experienced.

Federal guidelines do not recommend specific public involvement procedures or actions; rather, they allow substantial flexibility to state and local authorities to structure their efforts to meet the needs of the given project and the local issues to be addressed. The federal government published a transportation public involvement manual in 1996 (4). This lengthy document provides information regarding a broad range of techniques that can be used in public involvement efforts. State agencies have developed their own programs and guidance (5, 6).

These documents have been of value to project managers preparing and executing public involvement plans. However, from the perspective of this research, they are incomplete, in that they tend to focus primarily on the process or techniques of how to do

public involvement in a generic sense, with little explicit guidance on how to manage conflict. This is entirely appropriate; their aim is to serve as basic manuals for users who may have little experience in this area. There is some existing guidance in regard to conflict management (7), however, it is proprietary and possibly inaccessible to agencies planning public involvement processes.

Our methodology in this research was to examine a number of examples of public involvement processes with varying degrees and types of difficulty and different levels of success. We were fortunate from a research standpoint that a local public involvement effort in St. Paul, Ayd Mill Road, had the three characteristics of having been generally well run with good intentions, of having been plagued by many different sources of conflict, and of being extremely well documented in a neighborhood newspaper (8). We also interviewed a number of the key participants. This very complex process was our primary source of reasons why public involvement can turn out badly. We then contrasted the characteristics of this project and its public involvement process with other projects for which the public involvement process resolved successfully. Two of these were Minnesota projects, which we studied through newspaper coverage (9, 10) and interviews with participants; another was a project in San Diego for which we relied on a published article (1) and interviews and other materials provided by a central participant.

We identify five independent types of conflict, each of which needs to be addressed in its own way. Thus this work moves beyond the hit-or-miss approach of using particular case studies for guidance. By identifying a small number of discrete types of conflict, it becomes possible to develop specific management strategies; a small number of strategies can address a large number of possible situations. By customizing conflict management to the particular type of conflict being experienced, it should be possible for public involvement managers to work more efficiently with greater probability of success.

## **THE AYD MILL ROAD PROJECT**

Ayd Mill Road (AMR) was constructed in the 1960s as a 1.6-mile stretch of four lane divided roadway, intended to provide a link between I-35E at the south and I-94 at the north, approximately two miles from downtown St. Paul, Minnesota. However, at the time of construction it was not linked directly to I-94 due to local opposition, or to I-35E because that freeway was not complete. By 1987, I-35E was in place at the intersection with AMR, but no connection was built, again due to local opposition. Completion of this stretch of I-35E led to large increases in traffic levels accessing AMR, creating severe peak hour congestion conditions at the intersection between the two highways. From 1988 to the present, there has been an on-going decision process involving how to best address this and related problems. Except where otherwise noted, all the material in this section is taken from accounts in a local neighborhood newspaper (8). An aerial photograph of AMR and the surrounding features is shown in Figure 1.

The key considerations driving the public discussion of Ayd Mill Road are the following:

- There is no direct connection between I-35E south of downtown St. Paul and I-94 to the west. The three most convenient indirect connections are 1) AMR, 2) a sequence of streets on the periphery of downtown (the “official” connection), and 3) local streets roughly parallel to AMR.
- Because AMR is not directly connected to the freeways on either end, drivers wishing to use it must use about half a mile of local streets on each end. This is a major issue on the south end because these streets are residential and already heavily traveled. Also, many drivers use the local streets for the entire distance between the freeways because AMR is relatively short and difficult to access.
- The connection through local streets on the north end is less problematic because these streets are mostly commercial and built to carry large volumes. However, while present volumes are manageable, nearby residents oppose any increase in volume, such as might happen if the south end were connected.
- A direct south end connection (freeway-style ramp) was built in the early 1990s to support a separate bridge maintenance project and was subsequently closed with earthen berms once the maintenance project was completed. Thus, providing this connection would simply be a matter of removing earthen barriers. Building an enhanced north end connection would be much more costly and disruptive to the local area due to right-of-way needs.
- For most of its length AMR is in a wide, low trench; it is almost always separated by grade, distance, and vegetation from the housing on either side of it. There are active railroad tracks running the length of the corridor. Because of these characteristics, the corridor is well suited to be used as a highway; it does not seem as well suited for any other purpose.
- Given the configuration of the regional highway network, AMR serves primarily local residents and destinations. There are better routes available for travel between the suburbs south of St. Paul, and Minneapolis to the west. As a result, AMR is lightly traveled; many local arterials carry similar traffic loads.

### **Early Public Involvement**

In 1988 a task force met to formally discuss possible options regarding the future of AMR. This task force was brought together by the city of St. Paul, and included representatives of four district planning councils, six community councils, three business associations, and a number of other neighborhood groups. The first recommendation made by the task force was that a connection be made between I-35E and westbound I-94 where the two interstates meet close to downtown St. Paul. The reasoning behind such a connection was that this would keep regional traffic from entering AMR and, thus, limit local impacts associated with the roadway. The report also recommended that a direct connection be implemented between AMR and I-35E to alleviate this congestion. However, the task force recommended that this improvement not be made until a way to address traffic issues at the north end of AMR was determined and implemented. The task force had ruled out direct connections between AMR and I-94 because of concerns

that this approach, combined with a direct connection between AMR and I-35E, would lead to freeway-like conditions on AMR. The task force did not recommend any specific north-end alternatives, but did recommend that an Environmental Impact Statement (EIS) process be undertaken to identify such alternatives.

The St. Paul Planning Commission essentially approved the Task Force's report and associated recommendations, but made one major revision. Citing high costs, design problems, and relatively low anticipated volume, the Planning Commission eliminated the option of connecting I-35E directly to westbound I-94. Task Force members, once they saw information provided by Mn/DOT regarding the cost and construction requirements associated with this connection, agreed that this was not a viable option. The Planning Commission concurred with the Task Force that the issues in the study area were serious enough to warrant an Environmental Impact Statement. However, funding was not available for this very expensive process.

In 1993 the preliminary portion of the Ayd Mill Road EIS process was finally initiated. The primary function of this phase was to identify alternatives to be studied in the Draft Environmental Impact Statement (DEIS). A second AMR Task Force, representing many of the same organizations as the first, was formed in 1993 to meet regularly and provide input into the scoping phase work. Between September of 1993 and March of 1995, the AMR Task Force met regularly to discuss potential alternatives. One of the options that was introduced and received much discussion was a "linear park" alternative, whereby the roadway would be removed and replaced by a park. In the end, the following alternatives were recommended to be studied in the DEIS:

1. No build
2. A downtown direct connection between I-35E and westbound I-94
3. Transportation system management/travel demand management
4. Removal of AMR roadway and construction of a linear park including a trail system for hikers and bicyclists
5. Various two- and four-lane connected alternatives.

In April of 1995 the St. Paul Planning Commission reviewed the above alternatives, and eliminated several alternatives, including the direct downtown connection and the linear park, from the list before passing it along to the City Council. At a May 10, 1995 public hearing for the AMR decision process, a number of residents reacted angrily to the removal of these options. One Task Force member complained of "blatant disregard" from the Planning Commission. On May 24, 1995, the City Council voted to restore the linear park option to the list of alternatives. However, the downtown connection was left out, for the same reasons that it had been eliminated before.

### **Draft Environmental Impact Statement**

Work on the Draft Environmental Impact Statement (DEIS) began in the spring of 1996. The purpose of the DEIS was to formally assess the environmental impacts, including

traffic impacts, associated with the alternatives identified in the scoping process. Key findings from the DEIS analysis are summarized as follows:

- The Linear Park Alternative (which would remove the AMR roadway) would distribute existing AMR trips to parallel north-south streets, which would experience a “high increase” in traffic volume. Three intersections would be operating over capacity (level of service F) in 2020.
- The two- and four-lane connection options would divert motorists from existing city streets, leading to a large decrease in peak hour traffic levels along nearby streets. No intersections in the study area would be over capacity in 2020.
- Under the No Build Alternative, in which the road would be left as is, six intersections would be operating over capacity in 2020.

During the AMR DEIS process, three new activist groups were formed and became important stakeholders in the overall decision process: Neighborhoods First!, No Connect Coalition, and Citizens for Safe Streets. The first two of these were opposed to the highway options in general, and favored the linear park. Citizens for Safe Streets was formed made up primarily of residents along either side of Lexington Avenue (the main parallel route to AMR). Lexington is already one of the busiest roadways in the study area and has a relatively high accident rate. Unlike AMR, Lexington is also residential along essentially its entire length in the project area. Accordingly, Citizens for Safe Streets opposed the linear park alternative.

After being reviewed and approved by the AMR Task Force, the St. Paul Planning Commission, and the St. Paul City Council, the AMR DEIS was put on 30-day public notice in February of 1999. Even before the DEIS went on public notice, stakeholder organizations began to discuss and identify what they considered to be preferred alternatives. The DEIS public hearing on March 24, 1999 drew more than 120 people. Supporters of the Linear Park concept presented a petition signed by more than 1,200 people. Petitions in support of the two or four-lane connect alternatives were also presented.

After the public hearing the next step in the overall process was for the AMR Task Force to determine its choice of a preferred alternative. A vote was held on August 23, 1999; the linear park won the most points. There was significant discord regarding the outcome this vote. There was concern that some members had voted for the park even though the organizations that they were representing favored a road option. A city representative questioned the validity of the voting based upon changes in representatives to the Task Force relatively shortly before the Task Force final vote. Some Task Force members were frustrated with the point system used in the final vote, which they felt was skillfully manipulated by proponents of the park.

On October 22, 1999, the St. Paul Planning Commission chose not to follow the recommendation of the AMR Task force, and voted in favor of a four-lane connected AMR alternative in which one lane in each direction would be dedicated to high occupancy vehicles (HOVs). A commission member said after the vote that usually the planning commission adheres to recommendations from its citizen task forces. However, he said that the group’s recommendation for a linear park was “substantially diminished”

by the process used to arrive at it. In December of 1999, Mayor Norm Coleman agreed with the planning commission and made a recommendation to the City Council that it adopt the four-lane connection option.

At a City Council meeting on December 22, 1999, approximately 200 members of the No Connect Coalition filled the City Council chambers. Many coalition members in attendance held signs or wore tape over their mouths. In a letter to the mayor and the City Council, the coalition explained that this silence was a form of protest against what they perceived as disregard of their concerns at the public hearing, in environmental impact study comments, and at Planning Commission meetings. The No Connect Coalition contingent dwarfed the half dozen members of Citizens for Safe Streets who attended the meeting.

At a City Council meeting on April 12, 2000, the council voted 5-2 to select a two-lane connected roadway as its preferred alternative. The adopted resolution stipulated a 35-mile per hour speed limit and a ban on trucks (except for local delivery trucks). Ayd Mill Road would be connected directly to I-35E with ramps at the south end and indirectly through existing I-94 frontage roads at the north end. This solution had been put forth as a compromise between the linear park recommended by the AMR Task Force and the four-lane connected roadway favored by the city planning commission.

More than 70 protesters, wearing red ribbons and waving signs, filled the council chambers prior to the vote. Many of the protesters were members of the No Connect Coalition. Press coverage reported that “While they [the protesters] were not allowed to testify, they made themselves heard by boos, hisses and name-calling during the council’s deliberations....”

As a postscript, this resolution was never implemented. The highway continued in its existing unconnected state for two more years, at which point a new mayor unilaterally declared a one-year experiment in which the existing south end connection was opened, and north end traffic was partially rerouted to split it among two different routes to I-94. After several variations and measurement of impacts, a version of this general approach was continued indefinitely. A “permanent” solution has not yet been agreed upon.

## **PARAMETERS OF POTENTIAL CONFLICT**

A common characteristic of much of the literature on public involvement in transportation project planning is that it is data-focused. That is, many papers simply describe the techniques used and the results obtained in a particular project. This is certainly valuable information; more general understanding can only arise from specific knowledge of individual cases. However, case studies can be of limited use in helping other project managers with their own public involvement problems. The nature of the problems may not be similar enough for strong parallels to be drawn, or the success of particular techniques may have been dependent on the circumstances of the project.

Researchers in other fields with repetitive conflict, such as labor relations and hazardous facility siting, have developed more general theories of conflict management (11, 12, 13). However, there has been little attempt to develop such theories within the

context of transportation projects, possibly because systematic public involvement is a relatively recent development in the field.

In this section we use the Ayd Mill Road case study to develop a prototype of a general theory of conflict anticipation and management in transportation public involvement. Our starting point is the observation that the process for Ayd Mill Road was not badly managed. In retrospect one can always point to specific things that could have been done differently, but in general this was the same process, executed by the same people, that had been used successfully in many other cases.

And in general, identifying possible missteps is only really helpful in the context of some more general framework that can be referenced by others to avoid making the same mistake in the future. Our hypothesis here is that public involvement needs to be approached differently in cases where the potential for serious conflict exists, and that in general the nature of the approach will depend on the type of conflict.

We contrast the circumstances and execution of the AMR process with those of several projects with successful public involvement outcomes to identify key differences and similarities. We focus on three main projects. Space constraints preclude discussing them in depth, but the following paragraphs give a sense of the major issues and outcomes.

Piedmont Avenue in Duluth, Minnesota, was proposed as a substantial widening (from two to four lanes) of an existing street through a residential area (10). This street is an urban portion of U.S. Highway 51, which carries large volumes of both regional and local traffic. There was little objection to the project despite the need for acquisition of a large number of properties and the potential for the larger road to divide an established and attractive neighborhood. This lack of opposition was in large part because local residents perceived existing conditions, in terms of safety and congestion, as highly undesirable. The public involvement process provoked very little controversy.

The I-35E bridge project in St. Paul, Minnesota was a proposed bridge reconstruction to address structural deficiencies, safety concerns associated with the current bridge geometrics, and increases in traffic levels resulting from suburban development south of the bridge (9). Initially residents and elected officials in St. Paul were very concerned about potential impacts from a widening of the existing structure; however, in the end these concerns were dealt with and the design chosen was one of the widest being considered. A key element of the public involvement process was that both opponents and supporters of the project were explicitly involved in the discussion.

The Mission Valley East Light Rail Transit extension in San Diego, California, was intended to provide a link between two existing lines, and to provide service to the San Diego State University campus (1). The alignment that had the highest ridership potential, and which was heavily favored by the university, was vigorously opposed by some local residents. Again, both opponents and supporters were explicitly brought into the public discussions; eventually the opponents were convinced that some of their concerns were exaggerated, and design modifications alleviated other concerns.

From Ayd Mill Road and how it contrasts with the other case studies, we identify five parameters of conflict:

- Degree of local benefits or costs
- Disputes regarding the nature and importance of local impacts
- Ability to accurately define and engage relevant stakeholders
- Perceived legitimacy of the project
- Degree of ideological issues

In the remainder of this section we discuss each of these parameters in turn.

### **Degree of Local Benefits or Costs**

The absence of conflict within this parameter is likely the reason why many local road projects provoke little controversy. When the parties that are impacted by a road are themselves significant or even the primary users of it, so that the benefits and impacts of the project accrue to the same people, then most other sources of conflict will tend to be diminished. When the impacted residents are themselves deriving benefits in excess of costs, then their interest is in seeing the project move forward, even if they may dispute particular aspects of the design. In this case standard public involvement techniques are likely to be entirely adequate.

With the Ayd Mill Road project, an early issue was that local residents resented having to bear the impacts of the highway for the benefit of suburban motorists. While St. Paul residents also use the highway, this point was apparently not much discussed. There were local benefits, but they tended to be offset by local costs elsewhere. Solutions that would reduce traffic in one area would invariably increase it somewhere else.

By contrast, the Piedmont Avenue project was seen as beneficial by local residents; while it is a major through highway, it is also heavily used as a local street to access the rest of Duluth. In addition, like Ayd Mill Road, Piedmont Avenue was creating local problems in its current state; but unlike Ayd Mill Road, the proposed solution had a uniformly positive local impact. However, it is important to note that even here, acceptance of the proposed solution hinged critically on certain design compromises aimed at preserving neighborhood connectivity.

On the other two projects, the perception, at least at the beginning, was that “outsiders” would benefit at the expense of local residents. Thus the potential for serious conflict existed in principle.

### **Disputes Regarding the Nature and Importance of Local Impacts**

A fairly serious potential sticking point is the possibility that members of the public may not agree with the project sponsors, or with each other, about the nature or importance of the local impacts that the project will create. At some level clearer and more targeted information may help to deal with this. However, if there is fundamental disagreement about the significance of a given impact, even extensive communication and information may not be enough to create a resolution.

For the San Diego LRT, initial concerns about impacts seem to have really been questions about the legitimacy of the project; once supporters were brought into the discussion and legitimacy was established, it was possible to discuss and deal with impacts in a systematic way. Similarly for the I-35E bridge, early complaints about impacts appear to have mostly dissipated once the need for the project was established. A critical event here was the testimony of an ambulance operator about the danger of being stuck in congestion at the bridge while trying to reach downtown hospitals. (The existing bridge had no shoulders, so drivers couldn't get out of the way even if they wanted to.)

On Piedmont Avenue, there was a small dispute about the impacts associated with a proposed pedestrian tunnel; some saw it as a safe way to cross, while others perceived a potential refuge for anti-social behavior. As the dispute was among the residents themselves, the agency got out of the way and let the residents work out their own solution.

On Ayd Mill Road local impacts don't seem to have been disputed so much as they were ignored. Proponents of the linear park don't seem to have ever formulated a response to the claim that removing the highway would increase traffic on local streets; their focus on the benefits of a park appear to just bypass this whole realm of the discussion. Their unwillingness to address the implications of the traffic forecasts seems to have been more because the forecast results were inconvenient rather than because there was any substantive objection to their accuracy. A consultant from the company that did the traffic forecasts noted recently that there is a legitimate question about the accuracy of a regional forecasting model when applied to such a small scale; but skepticism toward the traffic forecasts doesn't seem to have been at this level of sophistication.

### **Ability to Accurately Define and Engage Relevant Stakeholders**

Guidance on performing public involvement generally emphasizes the importance of identifying and including a range of stakeholders. Here we advance beyond this general idea; in situations of serious conflict it is critical that the different major points of view be accurately identified and represented in the discussions. For both the San Diego LRT and the I-35E bridge, this seems to have been straightforward in that there were essentially two sides, each of whom spoke with a generally unified voice. And in both of these cases, the project managers credited the success of the effort in large part to the tactic of having the two sides sit down together to discuss the issue.

However, the identification of stakeholders was a very significant problem on Ayd Mill Road. There were many different widely held points of view, some of which, such as highway users, don't seem to have been represented at all. But a more important problem was that seats on the task force were given out based in large part on arbitrary political boundaries rather than based on any relationship to the highway. This likely had much to do with all the "informal" groups springing up at the end of the process to promote particular solutions (and to attempt takeovers of the task force seats).

It is worth dwelling on this point. The number of people directly impacted by the potential solutions on AMR amount to a few dozen at each end who would be

significantly affected, and a few hundred who live along AMR or local alternatives that would be marginally impacted. However, the land area covered by all the district councils and other organizations involved in the task force is a huge area; within which possibly 95% of the residents would not be noticeably affected one way or the other by any of the proposed solutions. Despite the absence of any direct impact, “No Connect” signs routinely appeared in yards that were miles from AMR.

Including large numbers of people with no direct stake in the outcome has two undesirable effects. First, in this situation it becomes possible for ideology to play a much bigger role; it can be very hard to maintain a rational discourse in the face of this. Second, if the consequences of the different choices are merely theoretical to most of the participants, then the voices of the minority that are truly impacted can get subsumed by the personal preferences of the majority that will face no serious consequences one way or the other. (Lexington Avenue residents facing large increases in traffic wondered aloud whose neighborhood was being put first by the group of that name.) Both of these were real problems for the AMR process.

Certainly the case could be made that if the point is to hold a dispassionate discussion of a range of alternatives, then it is desirable to have participants who are not entering the process with a particular point of view. At the same time, once clear points of view emerge and conflict begins to arise, it seems that it could be advantageous to formally recognize that situation and “internalize” the conflict by explicitly giving voice to the major perspectives, and ideally somehow giving more voice to the people suffering the greatest potential impacts. It is worth wondering whether Neighborhoods First!, if they had held a seat on the task force, would have felt the same need or desire to resort to the tactics of noise and disruption that they used instead.

### **Perceived Legitimacy of the Project**

This is a critical point in organizing public involvement. If there are sufficient local benefits so that it can be safely assumed that local residents will favor the project, as in the case of Piedmont Avenue, then this will not be an issue. Otherwise local residents are incurring excess costs; they then typically must then be convinced that there are significant system-wide benefits to justify their sacrifice.

At the very least this would involve making sure supporters of a project are at the table where their perspective must be recognized. A perception that the only supporter is the government itself is a powerful motivator to project opponents, and with good reason, as governments arguably should not be doing projects for their own benefit. Bringing supporters to the table seems to have been a significant element in the eventual success of both the San Diego LRT and the I-35E bridge projects. It is relatively easy to be inflexible and extreme in opposition to a faceless government agency, or in front of an anonymous crowd at a public hearing. It is another thing entirely to have both the opportunity and obligation to defend a position to a group of peers, with whom one must work over a number of separate occasions.

On Ayd Mill Road, the sponsoring agency ostensibly did not support a particular solution, although their actions at the end rather belied this position. In any case, it seems

again that once the major options had bifurcated into general categories of “improve the road” versus “remove the road,” that formally recognizing this dichotomy and organizing the discussion around it might have helped to focus the debate. As it was, the park supporters were unified around a position, while road improvement supporters were divided and debating the relative merits of different solutions rather than defending the road option in general. This impacted the final vote as well; park supporters had a single choice to vote for, while road supporters split their votes among several options.

This was arguably the single most important point in the Ayd Mill Road process. While it is admirable that the project sponsors wanted to keep all the options on the table, the problem is that what an improved road would look like, and whether there should be a road at all, are two qualitatively different questions that can't be discussed at the same time. First the legitimacy of the road must be established, and if necessary, conditions on that legitimacy. Then the discussion of the nature of the road can focus on its own objectives.

### **Ideological Issues**

The appearance of the specter of ideology might be the worst-case scenario for public involvement sponsors at the project level. Questions of city versus suburbs, of car versus transit, of mobility versus environmental protection, and so on, are important questions. But they are not questions that can or ought to be resolved at the level of an individual transportation project.

Ideology was clearly not an issue on Piedmont Avenue, and it does not seem to have been in San Diego either; opposition seemed to be to a particular alignment rather than to light rail or transit more generally. On the I-35E bridge ideology made a brief appearance at the beginning; one manifestation was a St. Paul city council member worrying that residents would use the improved bridge to “flee” the city. But again, this seems to have largely dissipated with the ambulance operator testimony about the difficulty of reaching downtown hospitals; even the most fervent anti-sprawl advocates could not ignore the significance of this.

However, ideology became a very big issue at the end of the Ayd Mill Road process. The two anti-connection groups were apparently not willing to even consider or discuss any alternative that involved a working highway. It is worth noting that the corridor is not particularly appealing as a park; indeed, the St. Paul park board was not interested in it, in large part because of the active railroad tracks running the length of the corridor. It is also worth noting that the twin cities are well endowed with parks, and linear parks in particular. The motivation seemed to come from an anti-car and anti-suburb agenda; the linear park idea served the role of a convenient and positive-sounding alternative to a highway. The fact that their negotiating tool of choice was “boos, hisses, and name-calling” illustrates the intractability of the problem facing the public involvement manager in these types of cases.

## CONCLUSIONS

Our objective in this paper was to develop a framework for understanding and addressing conflict in the public involvement phase of transportation projects. There are two key conclusions. First, that situations with serious conflict are fundamentally different from the typical public involvement effort; they require different tools and tactics that are explicitly built around the specific nature of the conflict being anticipated or encountered.

The second major finding is that “conflict” is neither a standard problem for which a standardized method is appropriate; nor is it so diverse that every project has to be approached on its own terms. There are distinct, predictable parameters around which conflict arises; a given project can suffer from any or all of them in varying degrees. The appropriate public involvement response needs to be customized to address the specific type and degree of conflict, but this is manageable because there are a finite number of conflict types. This research has identified five types; there are probably others that could be found through examination of other high conflict case studies. Public involvement managers, having identified the type of conflict they are encountering, or expect to encounter, can structure the process accordingly, or at least approach it more carefully.

There are also implications that fall outside of the scope of the public involvement process for a project. In the five parameters of conflict, the first two (degree of benefits and disputes about impacts) are essentially local in nature, the main exception being cases where the assessment of the importance of an impact is driven by ideology. Because they are local in nature, they can reasonably be discussed and resolved at local meetings. Indeed, a large part of the point of public involvement is to tap into the more detailed understanding of impacts that can come from local residents.

Identification of stakeholders can also be a local issue when the project is small in scope and impact. But as projects become bigger and of wider significance, determining exactly who should have a say in the outcome, and how much say each person or group should have, becomes a serious problem in its own right. The major problem is that the process can be taken over by people who are motivated by ideology, but who have little direct stake in the outcome. A theoretical case could be made that the discussions should be limited to people who are directly impacted, but as a practical matter, it is hard to imagine how such a distinction could be drawn, or who would enforce it.

This leads into an important point regarding the last two parameters, project legitimacy and ideology. As suggested earlier, while these issues are important and deserving of public discussion, their societal significance goes far beyond the relatively small number of people who are impacted by a given project, or who are able and motivated to attend public involvement events. The primary danger is that “big picture” issues keep delaying and even stopping individual projects, but without these issues ever being resolved or even systematically debated.

A possible solution is that somehow questions about which projects are legitimate and under what conditions or constraints, need to be answered from a broader and perhaps more neutral base of interests and considerations than is typically encountered at a “local” public hearing. This is true both from the perspective of the public and of the agency. Agencies performing public involvement often have a difficult conflict of

interest: they are representing a particular position, typically that of the road or transit user, and they are also moderating the discussion. Locals might see this as a stacked deck and approach the whole process with cynicism. At the same time, the agency is constrained in that they can't refuse to consider even extreme or unrealistic positions, because to do so would appear biased. The Ayd Mill Road process degenerated into a situation very much like this at the end.

One possibility is that the public involvement process could be moderated by some organization, perhaps dedicated to that purpose, other than the agency in charge of the proposed project. Serious questions about project legitimacy could be heard by a standing non-partisan committee; project opponents would have a chance to make their case to a neutral "jury" rather than to a possibly biased transportation agency. At the same time, they would be forced to make their case with facts and reasoning rather than force of numbers and noise.

Researchers in other fields have discussed at length the difficulty of weighing bureaucratic technical expertise and broad societal objectives against the personal and political preferences of the impacted public (14, 15). That is ultimately the problem being faced here; agencies use their technical expertise to determine the optimal way to implement a particular transportation policy, but at some level the policy itself can be considered open to debate. Perhaps different aspects of transportation policy and its implementation, from the general to the local, should be discussed in different types of forums, and by different types of participants.

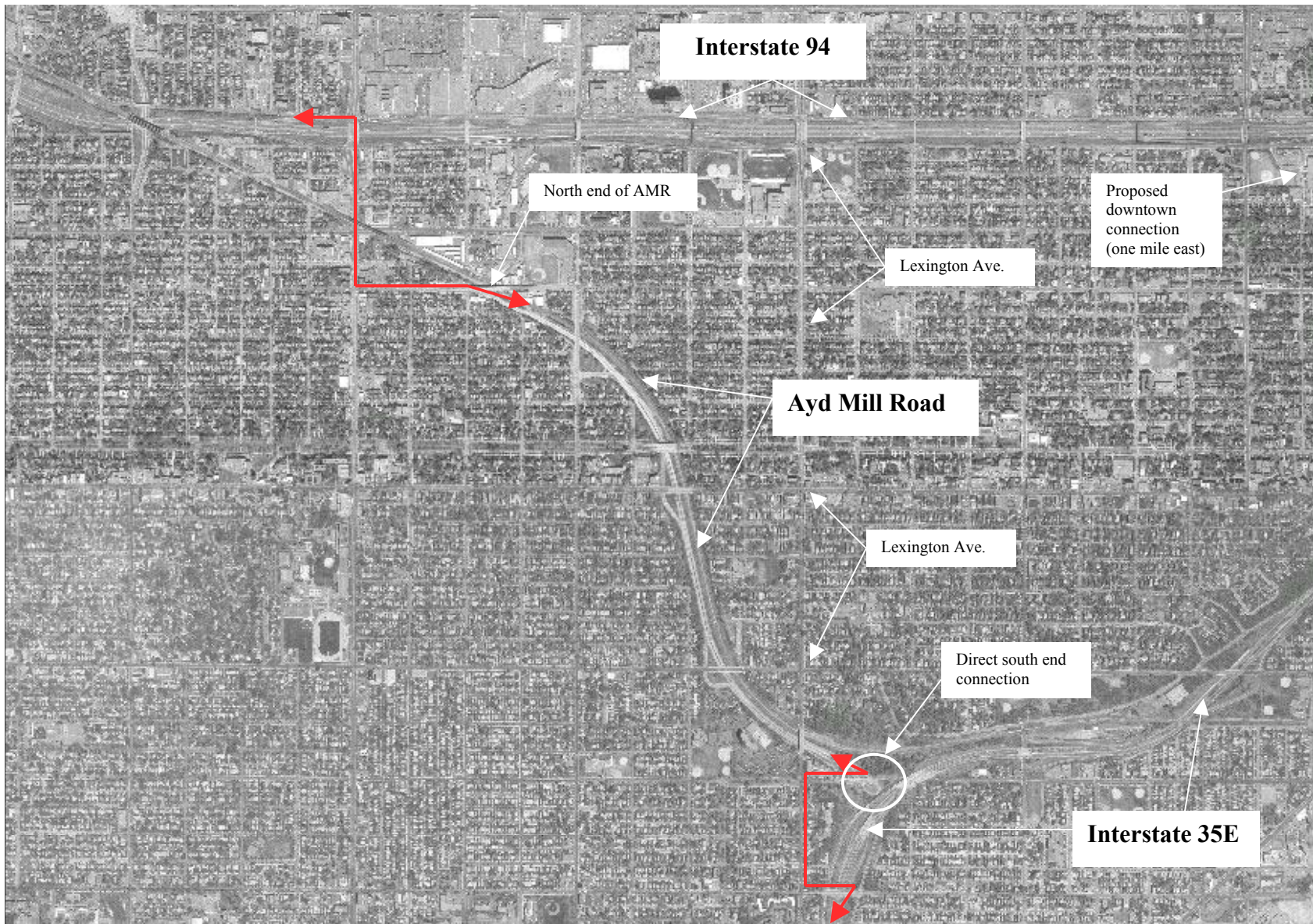
With further research perhaps a clearer understanding of the various types of conflict and best methods for addressing them will emerge. Study of additional cases could help to refine and perhaps expand the list of conflict types identified in this paper, and could identify the relative success of various strategies for addressing the different types of conflict. This knowledge could ultimately be developed into a formal process for negotiating conflict and increasing the value of public involvement to all the participants.

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**FIGURE 1** Ayd Mill Road and Surrounding Features.  
Heavy arrow lines indicate surface access routes between AMR and Interstates.