

# Community Participation in Public Works Projects

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*Due to increasing public awareness of the impact of large public works projects, key components of a successful large-scale public works project are community participation and citizen involvement in planning, design and construction phases.*

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**S**INCE THE MID-1960s communities and citizens have taken increasingly larger roles in determining the course and scope of projects that affect them. Citizens have become more adept at organizing themselves into citizen action groups and these groups have become more effective in representing their interests. Significant consideration in the planning, design and construction of major public works projects has been granted to communities and citizens through extensive community participation processes and programs in order to ensure timely and successful project completion. In some cases, this participation has been solicited on a voluntary basis; in others, agencies undertaking major projects have been required to

be responsive to the needs and desires of citizens.

One such agency, the Massachusetts Bay Transportation Authority (MBTA), recognized that such participation was a vital ingredient to the success of two major projects that affected many communities that, in turn, had differing constituencies. Initially creating and developing formalized community participation programs within its construction project budgets, the agency sought to provide ample opportunities for citizens and communities to participate in the planning, design and construction of two of the MBTA's most significant and challenging construction works — the Red Line Northwest Extension and the Southwest Corridor Project. In fact, community participation has become an integral part of all major MBTA construction projects.

## **MBTA: Background**

The MBTA serves 78 cities and towns in the Boston, MA, metropolitan area with a population of 2.6 million. The oldest and fifth largest transit authority in the United States, the MBTA has provided transportation services since the construction of the first subway in 1897. The growing need for more widespread public transportation in the Boston metropolitan area — due to population growth and the flourishing activity of the area's numerous educational, cultural and medical centers, and

the business community — required improvement and expansion of the area's public transportation system over the years. The MBTA, and its predecessors, responded with major construction of new lines and facilities, and added services that now consist of three rapid transit lines, a light rail line, a major commuter rail system, 155 bus routes and a variety of para-transit services. Today, the MBTA serves an estimated 600,000 passengers per day, and it expects to increase that number considerably in the late 1980s and into the 1990s through the completion of the new Southwest Corridor Project and other projects now under construction or in the planning/design stage.

The greater portion of the MBTA's expansion and improvement of the transportation system has taken place over the last two decades and is projected to continue throughout the remainder of this century. Since 1965, the MBTA has undertaken a \$3.7 billion capital improvement program with the assistance of the Commonwealth of Massachusetts and the U.S. Department of Transportation. This improvement program has been realized in such projects as the extension and relocation of the Orange Line rapid transit service from the Haymarket Station in downtown Boston to the Oak Grove Station in Malden to the north, extension of the Red Line rapid transit service from downtown Boston to Braintree in the south, the construction of new bus maintenance facilities, as well as the Red Line Northwest and Southwest Corridor Projects (see Figure 1).

This surge in construction activity has been the result of the MBTA's efforts to respond to area public transportation needs that have increased considerably in the last twenty years. Fuel shortages in the early 1970s, rising energy costs, urban congestion and increased public concern with environmental issues (specifically, air pollution) were major factors that contributed to a growing recognition by Boston-area residents that public transportation for their daily commute into the city was more practical than by automobile. The MBTA became the principal transportation alternative for thousands of commuters within Boston and its outlying

suburbs. Also during this period, plans to expand highway systems in the area came under fire from community groups and local officials who protested the massive land-takings for highway construction within their communities.

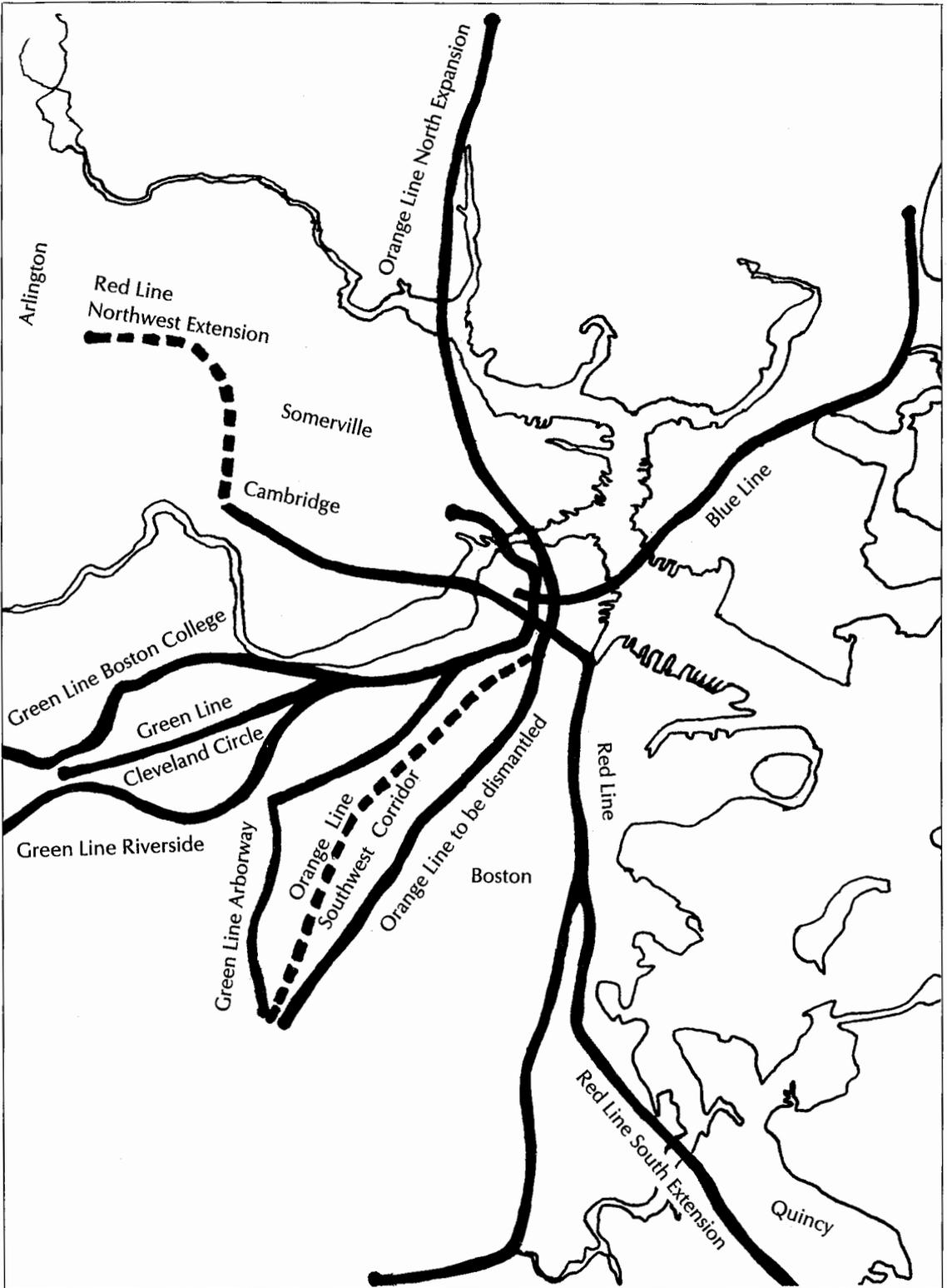
In 1970, Governor Sargent responded to these protests by imposing a moratorium on highway construction within the area bounded by Route 128, a highway that rings the Boston metropolitan area. He also created citizen/agency committees to review highway plans and consider other transportation alternatives. These actions resulted in the formation of several key cooperative efforts involving government agencies, community groups and individual citizens that set the planning into motion for MBTA expansion and improvement projects, and also laid the groundwork for successful public participation.

Out of this era, the MBTA's Red Line Northwest Extension and Southwest Corridor Project were born and, subsequently, became the focus for community involvement and sustained cooperative planning between government agencies and citizen groups. The MBTA provided coordination for the development of these projects, not only to address and fulfill the transportation needs of the area, but also to meet the expectations and interests of the project areas' localities and citizens.

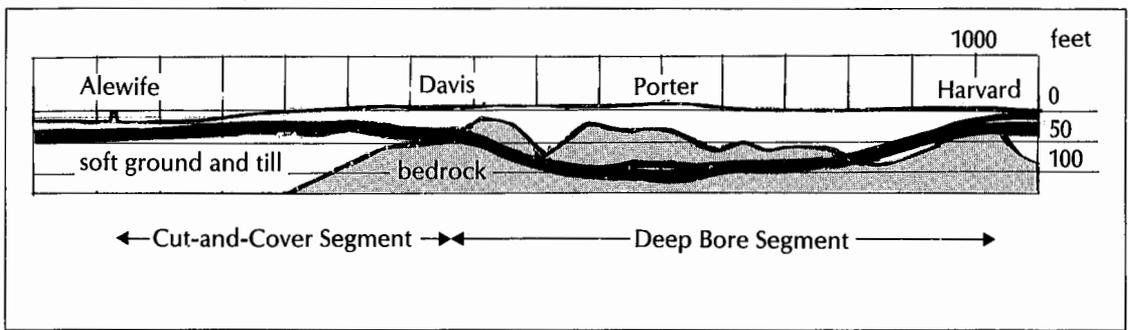
### **Red Line Northwest Extension**

Beginning in 1945, many government bodies and agencies studied the viability of, and options for, extending the Red Line rapid transit system beyond its original terminus at Harvard Square in Cambridge. In general terms, studies and plans for the viability of an extension of the Red Line from the Harvard Square Station in a northwesterly direction received the support of the area's political leaders, municipal bodies, community and business groups, and citizens.

During the 1960s alternative routes for the proposed extension from Harvard Square were the foci of numerous studies and public meetings conducted by the MBTA, regional transportation planning agencies, and agencies associated with the city of Cambridge.



**FIGURE 1. The actual routes of the Northwest Extension and Southwest Corridor projects in relation to other parts of the MBTA's rapid transit system.**



**FIGURE 2.** The areas where different construction methods finally used for the Northwest Extension are shown. The tunnel entered bedrock about midway to Porter Square and exited it just east of Davis Square. At Harvard and Porter Square stations the track is on two levels. The

This public focus increased during the early 1970s after Governor Francis Sargent declared a moratorium on highway construction within the boundary of Route 128, and formed the Boston Transportation Planning Review to examine current and proposed transportation plans for the Boston metropolitan area. In this anti-highway climate, there was a greater public and political push for mass transit to address the Boston area's transportation problems.

In 1970 a resolution passed by the Cambridge City Council urged the MBTA, the Governor and State Legislature to give high priority to extending the Red Line from Harvard Square to the Northwest as an alternative to a proposed highway (Route 2). The subsequent signing of cooperative agreements between the MBTA and the city of Cambridge in 1970, and the city of Somerville in 1972, resulted in extensive planning efforts that involved large segments of both communities.

Part of the agreement between the MBTA and Cambridge was the eventual creation by the MBTA of a 51-acre park on the site of the former Cambridge City Dump. The MBTA stored excavated materials in the dump during construction and agreed to construct the new park atop the materials when construction had been completed. Another park was also to be constructed along the cut-and-cover tunnels from Davis Square in Somerville to North Cambridge, and improvements were to be made to Russell Field, a recreational area in North Cambridge, as part of the project.

Among the major issues and decisions made during this period was the determination in 1970 of the means of construction for the Red Line extension along Massachusetts Avenue in Cambridge from Harvard Square to Porter Square. Initially, plans called for construction via the cut-and-cover process. Although significant cost savings would have been realized from the use of cut-and-cover, opposition from the Cambridge City Council and the community as a whole favored the deep bore tunneling method (see Figure 2). Representatives of the community and city officials feared the potential for extensive disruption of normal city activities that could result from deep excavation, utility relocation and active construction at the surface of this extremely active business and residential thoroughfare.

Cambridge and Somerville are two of the most densely populated cities in the United States. Construction was planned to pass through and beneath several active retail districts, historic areas, and a major educational and cultural center (Harvard Square). The close proximity of buildings and structures to the construction alignment, a maze of utilities requiring relocation, mixed-faced tunneling conditions, and heavy vehicular and pedestrian traffic throughout the construction area presented some of the many challenges that had to be met in design and construction.

In accordance with Cambridge opposition, deep-bore tunneling methods were used for two segments of the new tunnels and for

## Chronology of Red Line Northwest Extension Project

**1912** Red Line opens to Harvard Square.

**1945 - 1960** Cambridge Planning Board examines routes for an extension of the Red Line beyond Harvard Square. The MBTA begins preliminary engineering studies and considers a variety of extension alternatives. Several other transportation planning groups conduct studies for the extension.

**1970** Governor Sargent declares a moratorium on highway construction within the Rte. 128 area and establishes the Boston Transportation Planning Review to reevaluate transportation plans for the Boston metropolitan area.

Cambridge City Council passes resolution urging the MBTA, state and federal agencies to give a high priority to Red Line Extension planning. Council also resolves that extension construction along Massachusetts Ave. in Cambridge must be deep bore as opposed to cut-and-cover.

**1973** Congress passes the Federal Interstate Highway Act, enabling the transfer of funds previously earmarked for highway construction to mass transit projects.

Somerville urges the inclusion of Davis Square in the Extension.

**1975 - 1977** MBTA undertakes Environmental Impact Study (EIS) to determine feasibility, impact and precise route of the Extension, including routing into Arlington. Final EIS is published.

**1976 - 1977** Arlington, through its Board of Selectmen and Town Meeting,

officially opposes extension of the Red Line into Arlington if its terminus is to be in Arlington. This opposition results in the terminus of the Extension at Alewife Brook Parkway in North Cambridge.

**1976 - 1978** Design (schematic & detailed) process for new stations and tunnels involves extensive community participation.

**1977** Urban Mass Transportation Administration approves funding for the Extension to Alewife.

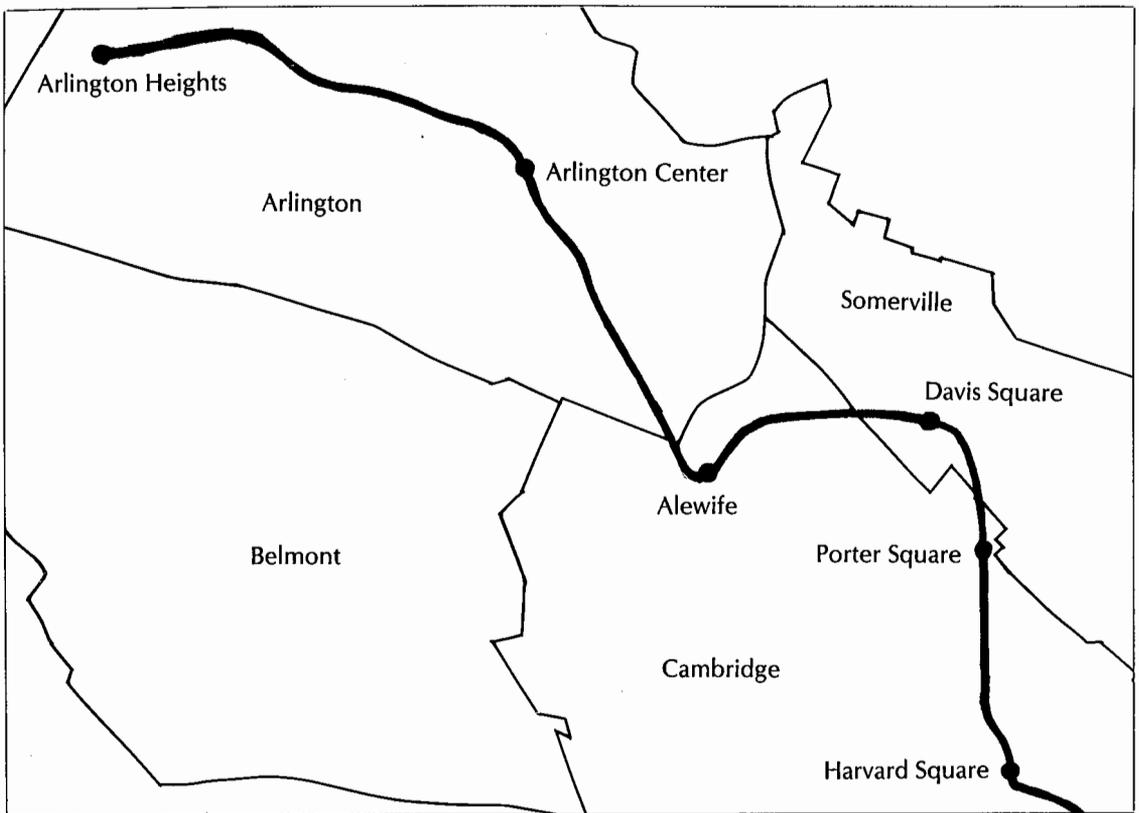
First contract is awarded for the construction of a temporary rapid transit station at Harvard Square during construction.

**1978** Urban Mass Transportation Administration awards grants for Arts On The Line program.

**1978 - 1982** The MBTA establishes a Community Assistance program to provide the communities affected by Extension construction with information on, and for resolution of, construction-related issues. A variety of programs, including a Business Stimulation program, are developed and implemented.

**1983** The MBTA begins operating test trains in new tunnels between Harvard Square Station and a crossover just beyond the Davis Square Station.

**1983 - 1985** New Red Line Northwest Extension stations open. Arts On The Line program highlighted with major dedication ceremony.



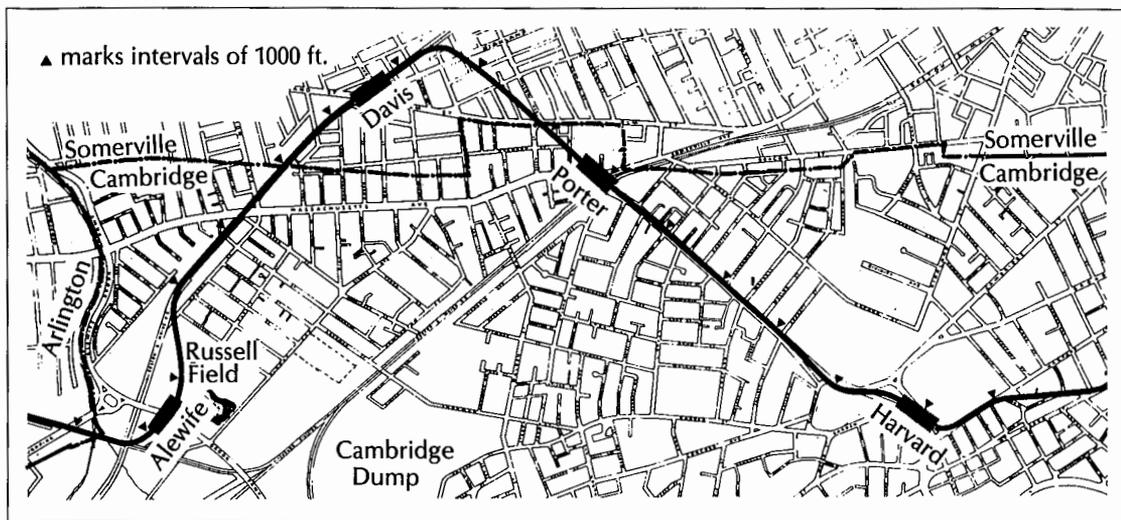
**FIGURE 3. The initial route of the proposed Northwest Extension that would have terminated in Arlington Heights.**

the Porter Square station. The remaining two tunnel segments and the tail track tunnel were constructed under an abandoned freight cut-off that allowed for the use of cut-and-cover construction methods. The Davis Square and Alewife stations were constructed utilizing the cut-and-cover method.

In fact, in 1973 Somerville requested that the extension be routed through Davis Square in that city so that it might serve that community better. The subsequent decision to extend the alignment of the extension through Davis Square was the result of Somerville's extensive community campaign. Recognizing the transportation and economic benefits of having a rapid transit/bus station at that location, city officials, businesspeople and residents launched a petition and letter-writing campaign to the MBTA and other transportation planning agencies asking for the inclusion of Davis Square in any Red Line extension plan.

Also in that year, the passage of the Federal Interstate Highway Act by the U.S. Congress opened the way for the project through permitting the transfer of highway construction funds to mass transit projects.

Community participation efforts were vital during the Extension's environmental assessment period. This environmental analysis examined the feasibility, impact and precise route of the Extension from Harvard Square in Cambridge to Arlington Heights. More than 110 government agencies, and business and citizen groups participated in more than 650 public meetings during this period, from 1975 to 1977. Consultants to the MBTA conducted the public meetings and compiled the required information for the Extension's three-volume Environmental Impact Statement (EIS). The MBTA instituted a Community Liaison Program that became a vehicle for fostering the participation of, and informing, the public during the environmental analysis.



**FIGURE 4.** The actual route of the Northwest Extension after the town of Arlington rejected its entry into that town. Locations of Russell Field and the Cambridge City Dump are also noted.

An effort was made to involve a broad range of community interests. The development of a newsletter, *The Red Line News*, was part of a public information program that sought to provide the communities with specific information, and the project schedule and progress on an on-going basis. This newsletter was published throughout design and construction until 1981.

The town of Arlington opposed the extension of the Red Line into its boundaries and its termination at Arlington Heights in 1977, despite the fact that the 6.5-mile extension to that point was studied extensively during the EIS period and throughout the planning processes (see Figure 3). The town objected to being the terminus for the extension, citing traffic problems. Arlington also opposed the proposed use of the cut-and-cover construction method, and the multi-phase construction sequence. As a result of Arlington's opposition, the extension was shortened to 3.2 miles and terminated instead at Alewife Brook Parkway in North Cambridge (see Figure 4).

Key components of the Community Liaison Program included the formation of Station Area Transportation Advisory Groups (TAGS). These task force groups were established for each station area to advise the responsible governmental bodies and agen-

cies, and to provide input in the planning process relating to station development and other station alternatives. A Red Line Working Committee (RLWC) was also formed under the auspices of the Central Transportation Planning Staff, the state transportation planning agency. The RLWC was charged with considering and coordinating issues affecting the entire extension project. RLWC members included representatives from the state, regional areas within the state, and business and community groups from all communities along, or in close vicinity to, the proposed terminus of the Northwest Extension. In addition, numerous meetings were held as part of the Community Liaison Program to provide civic organizations and business groups with presentations and information relevant to the extension.

During the extension's schematic and detailed design periods, the MBTA and its consultants continued to involve community groups and individuals as an integral part of station design and tunnel alignment. Six teams of consultants, including one for each of the four stations (Harvard, Porter, Davis and Alewife) and one for each of the two tunnel segments (Harvard to Davis, and Davis to Alewife) conducted numerous public meetings and workshops to obtain community opinion and comment on design alternatives. In

addition, a subcontractor to one of the consultants served as the community liaison and provided a major portion of the public information materials, including *The Red Line News*.

By 1978, the MBTA had received full funding for the \$574 million Northwest Extension project. As construction activity got underway in Cambridge and Somerville, the MBTA and its consultants intensified efforts to provide the communities with detailed information, and made further efforts to address their concerns relating to initial construction activities.

Among the first of these efforts was the distribution of a project brochure, *Going Underground*, that provided information and graphics relating to the first construction contracts scheduled for award, descriptions of initial construction activities, and a description of the overall project schedule and construction plan. In addition, a 24-hour hotline was established to provide residents and businesspeople with the opportunity to express their concerns and make inquiries regarding construction activity in their area. The MBTA's engineering consultant assigned a staff member to serve as Construction Information Officer to respond to questions and to address complaints. The MBTA Red Line Construction Project Office also assigned a staff member to coordinate with the consultant and to provide information and liaison services when required.

By late 1978, the MBTA expanded these community participation and information efforts by establishing the Red Line Development Office. This office was to furnish direct community assistance and public information during Red Line construction on a full-time basis. The Development Office staff included:

- a Project Manager with vast community relations experience;
- three Program Development Agents, each possessing backgrounds in community relations and one with extensive experience in the construction industry, including building construction trade union matters; and,
- a Public Information Officer.

The Development Office was responsible for providing construction support and monitoring, coordinating all community participation activities including public meetings, and developing and coordinating all public information programs and materials.

A Property Survey Program and a Construction Damage Review Process were two significant undertakings that resulted from the efforts of the Development Office staff. These programs were developed in response to concerns and complaints from property owners impacted by Red Line construction in the Davis Square area of Somerville and the Porter Square area of Cambridge.

According to contract specifications, property survey documentation was required by the contractor for each MBTA contract within the limits of their contract area. This documentation included color photographs and technical descriptions of the condition of the property prior to construction. However, these specified contract areas did not include numerous properties located directly above the Porter Square to Davis Square tunnel. This tunnel was being excavated by blasting approximately 100-120 feet beneath the surface. In an effort to respond to the anxieties expressed by property owners in this area, the Development Office obtained the approval from the MBTA Board of Directors to offer the supplemental Property Survey Program to serve the property owners within close proximity to the tunnel construction at no cost to the property owner. An engineering consultant was retained to provide the extensive photographic and descriptive documentation. The program was widely publicized in local Somerville and Cambridge newspapers, *The Red Line News*, and through announcements at public meetings. More than 275 property surveys were conducted as a result of this effort. Property owners were supplied with copies of the surveys of their property.

The second program, the Construction Damage Review Process, focused on the allegations of property damage denied by insurance carriers for the MBTA contractors. This program was developed when public outrage was expressed and when an overwhelming number of complaints regarding

claims denial procedures by the insurance carriers were received by the MBTA from property owners as well as from the Mayor and other city representatives from Somerville.

The Development Office, in close coordination with the Red Line Northwest Extension's construction staff and the MBTA legal department, developed a process to review and address all claims filed with MBTA contractors. This process included the inspection of alleged damage by the MBTA Damage Review Committee. If the damage was determined by the Committee to be construction related, settlement offers were made to those property owners. The MBTA authorized this expenditure of MBTA funds with the stipulation that all settlement costs would be borne by the contractors and/or their insurance carriers.

An engineering consultant was retained by the MBTA to furnish the technical expertise for damage evaluation, and a team of qualified MBTA staff was assigned to implement the process. An engineering consultant from Somerville's Community Development Office was also secured to represent that community's interests through an agreement with the MBTA, thus ensuring formal city representation as part of the review process. Almost 200 claims were reviewed, and approximately 37% were determined by the committee to be construction related in whole or in part. More than 50 settlement offers were made as a result of the program. This program resulted in greater public credibility that the MBTA was concerned about their interests.

Another successful Development Office program was the Public Blasting Information and Assistance Program. Prior to the commencement of drilling and blasting to excavate the deep-bore tunnels between Porter and Davis Squares, the Development Office initiated informational programs and activities to help ease the anxieties of residents and businesses in proximity to the tunnel areas. These efforts were in response to the many concerns expressed by property owners at Davis Square TAGS meetings and in telephone conversations with the Development

Office staff.

Components of the program included the publishing of information regarding blasting in *The Red Line News*, and the posting of informational notices, *Construction Notes for Sidewalk Supers*, at relevant construction sites. These notices provided a step-by-step description of the procedure used for drilling and blasting. Eventually, these notices were posted at additional sites to inform interested pedestrians of all aspects of construction activities. Program Development Agents from the Development Office staff also visited residents in the neighborhoods where blasting was to occur in order to provide direct information and answer questions. Moreover, blasting demonstrations were scheduled and held at sites where the activity was already underway so that residents would have the opportunity to see blasting in use firsthand and relieve any apprehensions when it did occur in their areas.

Another construction assistance program, the Business Stimulation Program, required extensive planning and coordination on part of the Development Office. In 1978, merchants from Harvard Square, along Massachusetts Avenue and in Porter Square in Cambridge (and, eventually, merchants from Davis Square in Somerville) formed an organization, Merchants On The Line (MOTL). This organization was formed out of their apprehension and concerns that heavy construction activity in immediate proximity to their business establishments could adversely affect their businesses. Through a series of meetings with representatives of the Development Office and the Cambridge Chamber of Commerce, MOTL sought financial support from the MBTA for a business stimulation program to attract customers to construction areas during the Extension's active construction phase.

The Development Office first responded by providing funding and staff time for a trial promotion that featured media advertising, discount coupons, and signage and entertainment activities in construction areas between Harvard and Porter Squares. As the result of the apparent success of this promotion, and justification by MOTL that a more comprehensive effort was needed, the MBTA Board

of Directors voted for the execution of a \$100,000 contract with a public relations firm to handle the business stimulation program on an on-going basis.

In concert with MOTL and other representatives from the MBTA, the Development Office selected a public relations firm to perform a wide variety of tasks that encompassed the development and implementation of several large promotions, surveys to determine the nature and degree of construction impact on certain areas, and the development of programs to assist in Red Line Northwest alignment.

The resulting promotions and activities were considered successful by members of MOTL, although a conclusive determination whether the program did increase or otherwise affect business activity in the impacted areas may not be measurable. The program, however, did ensure the establishment of a positive working relationship between the MBTA and the business community along the Northwest Extension, as well as offering additional community service programs to the general public. Among these programs was a Vision Testing Program that provided free eye examinations for the public through a mobile unit that was located in four Northwest Extension retail areas.

Most issues and complaints relating to the Red Line Northwest Extension were addressed and, in a majority of cases, resolved through discussions and agreements between representatives of the MBTA, city governments and citizen/business groups. Many of these efforts at reasonable compromise prevented further litigation and public displays of protest, although all incidents of discontent could not be avoided.

The major incidence of citizen opposition concerned a Cambridge community group that adopted the name Red Line Alert. This group filed a suit in 1979 seeking to stop construction of the extension until a revised EIS could be completed. Red Line Alert charged that the original EIS did not indicate that blasting would be used as a construction method for the Harvard Square to Porter Square tunnel segment. The group averred that the EIS covered only the employment of

soft ground tunneling methods. The suit was ultimately heard in the Federal District Court in Boston and ruled in favor of the MBTA. The suit was dismissed on the grounds that the MBTA had taken adequate safeguards to inform the public, mainly through the Public Blasting Information and Assistance Program, of the construction methods to be used along the extension.

One widely acclaimed aspect of the MBTA Red Line Northwest Extension community participation effort was the Arts On The Line Program. Following the establishment in 1977 of a U.S. Department of Transportation policy encouraging the use of funds for the inclusion of art in public transportation systems, the MBTA was awarded a grant to determine an appropriate role for the incorporation of permanent artworks into the new Red Line Northwest Extension stations. The MBTA then executed an agreement with the Cambridge Arts Council to implement this project. The MBTA committed one-half of one percent of each of its station's construction budget to the project, totaling \$695,000 for all four new stations. The Cambridge Arts Council raised an additional \$70,000 from the National Endowment for the Arts to supplement the art allowances.

The Cambridge Arts Council, after many months of research, developed a nationally replicated artist selection procedure and policy for incorporating artworks into transit stations. The artist selection process featured the participation of community members from each of the four communities surrounding each station. An Arts Committee was established for each station, consisting of an Advisory Group and an Arts Panel. The Advisory Group was made up of residents, businesspeople, city planning representatives, members of the city's historical commission, and representatives of the station's architect and the MBTA. The group's role was to furnish advice and information to the Arts Panel that consisted of artists, curators and/or historians and that had the responsibility of selecting the artworks. The purpose of having the two groups — one representing the community and the other, arts professionals — was to ensure that the artworks selected

would best represent the community surrounding each station as well as being of the highest quality.

Community participation and public information also were the goals of a series of temporary arts programs that were part of the Arts On The Line Program. Working in close cooperation with the Development Office, the Cambridge Arts Council provided ample opportunities for children and adults in Extension communities to learn about the construction techniques being used for the extension. One of these efforts was the creation of a series of Construction Display Panels that highlighted the construction and the future of the new stations and tunnels. These four by eight foot, plexiglas-covered panels featured graphics and text describing construction techniques, such as the extensive use of slurry walls in the construction of the Red Line Northwest Extension.

Overall, the community assistance and participation program for the Red Line Northwest Extension demonstrated the success of public participation in the planning, design and construction of a major transportation project. Although this success may not be readily quantified, the attendance and comments of many members of the community at opening ceremonies for the extension's new stations in 1983 and 1984 reflected a sense of community involvement and pride. This sense of pride was even more evident when hundreds of residents, businesspeople, and representatives from the cities of Cambridge and Somerville attended the Celebration and Arts Dedication ceremony held for the Red Line Northwest Extension in May, 1985. Not of little importance, there were no significant delays in the planning, design and construction of this project caused by overt protest or litigation, and the resulting project was best suited to meet the needs of those who would use it.

### **Southwest Corridor Project**

Unlike the Red Line Northwest Extension, the 4.7-mile Southwest Corridor Project is being constructed entirely by the cut-and-cover method of construction in a depressed railroad right-of-way (Penn Central Shoreline)

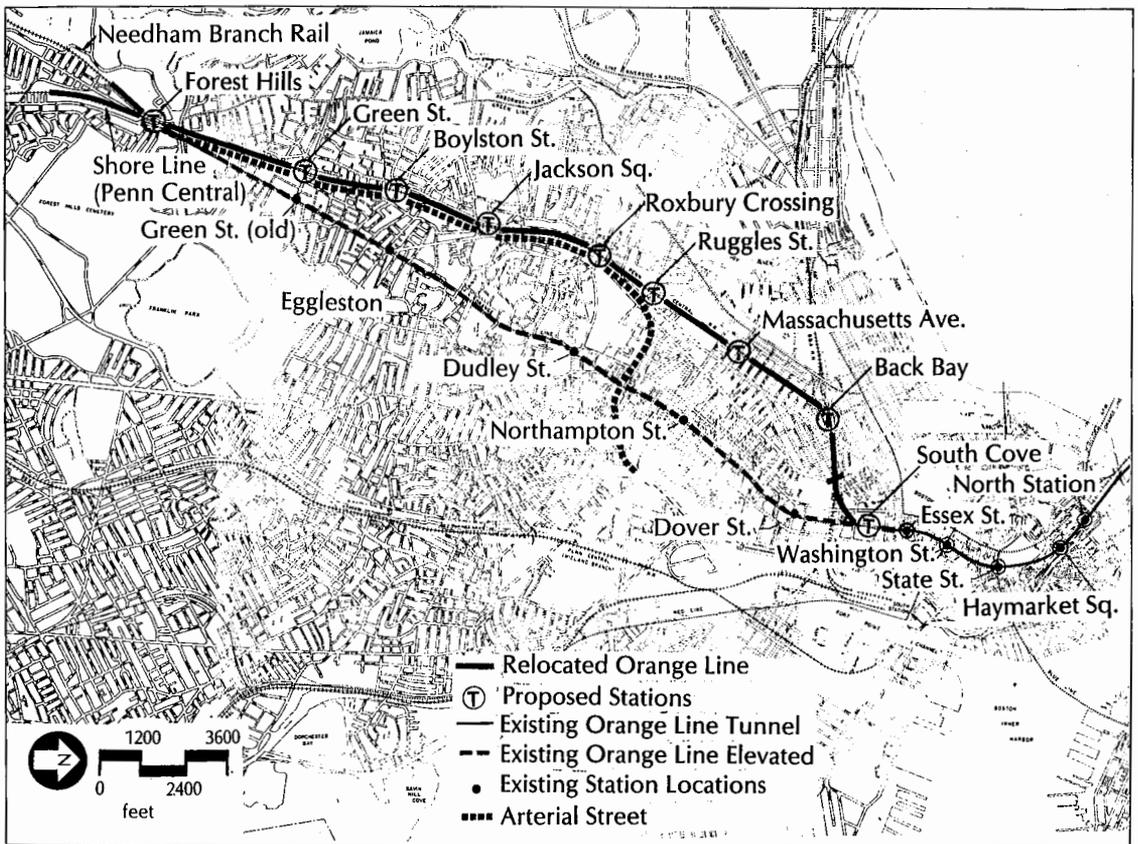
and adjacent land that was cleared for the construction of an interstate highway (I-95 South) during the 1960s. The project extends from downtown Boston in the north through Roxbury to the Forest Hills area of Boston's Jamaica Plain community (see Figure 5). Considered to be the largest single construction project in the history of the city of Boston, the Southwest Corridor Project encompasses an area in which one-quarter of the population of Boston resides, and links downtown Boston with seven of its neighborhoods.

The transportation elements of the project include the relocation of the MBTA's Orange Line rapid transit service into the railroad right-of-way from the present elevated structure along Washington Street in Roxbury and Jamaica Plain. The current elevated structure of the Orange Line was constructed in the early 1900s and is presently in a deteriorated condition. Demolition of the elevated structure is scheduled to follow the completion and opening of the new Orange Line along the Southwest Corridor.

Three railroad tracks that will service MBTA Commuter Rail and Amtrak are also being placed in the right-of-way. Nine new rapid transit stations are planned for the Corridor; three of these stations will also serve as railroad stations. The project also includes the construction or reconstruction of 21 bridges, some of which are major street bridges over the Corridor, and a comprehensive street improvement and reconstruction program in all Southwest Corridor communities.

One particular feature of the Project is the construction of a 50-acre parkland that will be located on the deck over and alongside the Corridor from the Back Bay/South End area of Boston to the neighborhood of Forest Hills. The parkland will be a significant addition to Boston's park system, linking the series of parks created by Frederick Law Olmsted nearly a century ago and known as the Emerald Necklace. This parkland will include a variety of recreational facilities, as well as bicycle and pedestrian paths.

Possibly the most significant aspect of the Southwest Corridor Project plan is the proposed development of land parcels along



**FIGURE 5. The route of the Southwest Corridor for the relocation of the Orange Line rapid transit system.**

the Corridor that were cleared for I-95 South, but are not required as part of the transportation improvements. This land includes numerous major parcels that are expected, when developed, to produce an estimated \$30 million in annual tax revenue to the city and to provide an additional incentive for the revitalization of many Southwest Corridor neighborhoods.

Like the Red Line Northwest Extension, the Southwest Corridor Project has been highlighted by the cooperative efforts between the MBTA and various city, institutional, community and business organizations and agencies to address and resolve planning, design and construction issues. However, the communities of the Southwest Corridor Project were more enthusiastic in welcoming a transportation plan for their areas than their counterparts in Cambridge, Somerville and Arlington. The Southwest Corridor Project

also had the advantage that they were dealing with only one municipal government, that of Boston, instead of three, and that the majority of the construction would not actively take place beneath residences or businesses.

The concept of the Southwest Corridor was a direct response to a proposed highway plan that already had resulted in massive landtakings for the highway construction. The project plan offered a viable alternative to the feared land devastation and negative impact that citizens of neighborhoods along the highway's route saw as the future of the construction of I-95 South. Community and neighborhood groups turned their protest against the highway into active support for the Southwest Corridor concept. Furthermore, they sought to take a participatory role in the formulation and implementation of a plan to ensure that the resulting planning, design and construction would be an open public

## Chronology of the Southwest Corridor Project

**1948 - 1970** A statewide Master Highway Plan is introduced and implemented by the state Dept. of Public Works and funded by Congress. The plan includes the construction of an eight-lane-wide highway connecting to I-95 South through Boston's Roxbury and Jamaica Plain neighborhoods. Land is cleared for highway construction.

**1970 - 1972** Governor Sargent declares a moratorium on highway construction within the Rte. 128 area and establishes the Boston Transportation Planning Review to reevaluate transportation plans for the Boston metropolitan area. The Governor cancels plans for the I-95 extension as a result of the studies.

**1973** The Governor appoints a Southwest Corridor Coordinator and establishes a Southwest Corridor Project Office. The Coordinator unites neighborhood and community groups in planning for the Southwest Corridor Project. Congress passes the Federal Interstate Highway Act, enabling the transfer of funds previously earmarked for highway construction to mass transit projects.

**1974** Representatives of state, local and federal agencies, neighborhood organizations and community groups sign the Southwest Corridor Memorandum of Agreement, formalizing and guaranteeing participation by the community in the planning and development of the project plan.

**1976 - 1978** Environmental studies

and hearings are conducted for the project and involve many individuals and groups from communities within the project area. The final Environmental Impact Statement is published following this community involvement process.

**1977** Project design and engineering begins and continues. A formalized community participation process is developed and implemented.

**1978** Urban Mass Transportation Administration formally announces a \$680 million capital grant for the project.

**1979** Preliminary contracts for excavation, demolition and utility relocation for project construction awarded and begun.

**1981 - 1982** An unexpected shortfall of federal funding results in the Southwest Corridor Project Cost Reduction Effort. The Southwest Corridor Coordination Office is established and conducts community meetings in an effort to redefine project design and costs. Several major construction contracts are awarded that contribute to a favorable resolution of cost reduction issues.

**1986** System testing of the new transit and railroad lines is scheduled.

**1987** Projected opening of the new relocated Orange Line and commuter rail service.

**1987 - 1988** Demolition of the old elevated Orange Line.

process and that the project would have their best interests and desires in mind.

This citizen involvement in the Southwest Corridor Project dates back to the 1960s when residents and groups organized demonstrations and various other forms of public protest in opposition to the demolition in their neighborhoods for the planned construction of I-95 South. Community groups joined together to form the Coalition to Stop I-95.

During the early 1970s, a number of events, highlighted by considerable participation by community representatives, resulted in the cancellation of the highway plan in favor of a transportation plan that featured rapid transit and railroad improvements, as well as an improved local and arterial street system. By executive order, Governor Francis Sargent in 1970 stopped construction of the highway and began a reevaluation of transportation plans for the Boston metropolitan region, including the Southwest Corridor. Many public hearings were conducted by the Boston Transportation Planning Review. The resulting recommendations led to the Governor's decision in 1972 to support the transit/railroad plan. The subsequent appointment of a Southwest Corridor Development Coordinator by the Governor, with the concurrence of the Mayor of Boston, in 1973 further served to unite groups and public agencies in the development of the Corridor plan. As had happened with the Northwest Extension, the Corridor project received its primary boost in 1973 when Congress responded to nationwide resistance to highway construction by passing the Federal Highway Act, authorizing urban areas to transfer highway funds to other transportation projects. Governor Michael S. Dukakis formally canceled the I-95 highway plan in 1975 and funds were transferred to the Southwest Corridor Project.

One important event in the history of community participation in the Southwest Corridor Project was the signing in 1974 of a "Memorandum of Agreement" by the MBTA and other state, local and federal agencies, as well as representatives of community groups and neighborhood organizations. This agreement represented a solid commitment to community participation in the planning,

design and construction of the project, requiring ten percent of the planning and five percent of the basic design contracts be designated for community participation and related technical assistance. The agreement further assured that complete, comprehensive and cooperative planning among agencies and community representatives would continue throughout the development and implementation of the Southwest Corridor plan.

This commitment to community participation set the tone for the project's environmental review period from 1976 to 1978. The Southwest Corridor Development Coordinator and Project Office conducted numerous corridor-wide public meetings and legally required public hearings to discuss a broad range of issues relating to the project during the preparation of the project's Environmental Impact Statement. A Southwest Corridor Project Working Committee was established to discuss corridor-wide issues. Individual neighborhood committees were also formed to deal with specific neighborhood-related issues. A number of decisions were made during this period, among them right-of-way alignment, and the location of tracks and station sites.

As the project moved into its engineering and design stage, a formalized structure for community participation began to take shape. Different community groups, many of whom were part of the Coalition to Stop I-95, formed the Southwest Corridor Coalition, and played an integral role in assisting the MBTA's Southwest Corridor Project Office in selecting consultants for design and engineering.

These consultants included more than thirty firms, each with expertise in the various disciplines required to provide the Southwest Corridor Project with engineering, station architecture, traffic analysis, landscape architecture, land development planning and community participation coordination. Five consultants were selected to coordinate activities among the consultants.

In 1977, the structured process for project community participation was delineated by the community liaison consultant and the various committees and task forces. They began meeting to discuss and make recom-

recommendations to the MBTA and its consultants on a variety of planning and design issues.

An important component of this process was the assignment of three Section Planners (the project was broken down into three sections — Section I, Back Bay/South End of Boston; Section II, Roxbury; and Section III, Jamaica Plain) to serve as the primary contact between the project and each of the communities in each section. These individuals were, and continue to be, responsible for coordinating all community participation activities in conjunction with the MBTA's appropriate Project Office. Their responsibilities include developing and scheduling meetings, maintaining mailing lists, meeting informally with representatives of the community and businesspeople, and providing liaison services within their section whenever necessary. As the project moved into its construction phase, these Section Planners became responsible for furnishing construction activity information to the community, and receiving complaints relating to construction activity and informing the appropriate MBTA Coordination staff about these complaints. The Section Planners also play an important role in the coordination of meetings and the dissemination of information about the Corridor Land Development Process.

The various groups and task forces that comprise the Southwest Corridor Project's Community Participation Organization structure are:

- the Project Working Committee, which serves as a forum for the discussion of issues relating to the entire Corridor
- three Neighborhood Committees, one for each section, that provide section-wide review and discussion of design and construction issues relating to the section as well as some discussion of system-wide issues
- eight Station Area Task Forces, one for each station with the exception of the South Cove Station, that review station design and issues affecting the areas around each station, including landscape, parkland design and land development

Additional groups were formed during the project's construction phase:

- three Construction Task Forces, one for each section, to address complaints directly to the contractors' representatives who were required to be in attendance, and to discuss various issues relating to construction activity in each section
- a Parkland Management Advisory Committee, to review and receive citizen comments on issues relating to the Southwest Corridor Parkland Management process.

By late 1977, many of these groups were meeting frequently and working in close cooperation with representatives of the MBTA's Project Design staff, and engineering and architectural consultants. These groups made recommendations that were adopted as part of the Project's design. Their influence at the design stage ranged from system-wide items such as overall provisions for security in Corridor stations to section-wide issues such as the location and design of ventilation stacks, street alignments and tunnel decks, etc., to specific station design issues. An important part of the community participation process during the design period concerned Corridor parkland issues. Recognition of the needs and desires of residents and community groups as to what would be or not be part of the parkland areas at each station and neighborhood area were considered by MBTA project staff to be essential to the success of the parkland design.

Through planning, design and construction phases, the MBTA and its consultants offered an array of public information materials and implemented public awareness programs to foster participation. Among the published materials was *The Southwest Corridor News*, a tabloid format newsletter with a circulation of 12,000. *The Southwest Corridor News* continues to be distributed on an ongoing basis. Public notices and especially-written, illustrated explanations of station design processes, termed *SATF Notebooks*, were distributed to provide even more comprehensive project schedules and related information.

An important community involvement effort, the Southwest Corridor Educational Training Program, created opportunities for young residents (ages 16-21) of corridor communities to receive training in engineering, architecture, landscape architecture and planning. A total of 132 students received classroom instruction and placement with engineering and architectural firms through the program between 1978 and 1982. Considered a highlight of the project's community outreach efforts, a current version of the program is being offered to a group of approximately 20 students on a one-year basis, with funding provided by the Urban Mass Transportation Administration (UMTA).

Construction of the project commenced in 1979 and increased the requirements for public information efforts and community participation activities. These requirements became even more important in 1981, when the MBTA was advised by UMTA that no additional funds would be made available for the project budget beyond the \$783 million that had already been committed and approved. An \$81 million shortfall had been projected by the MBTA at that time.

The MBTA responded by establishing the Southwest Corridor Coordination Office team and immediately began identifying design changes that represented potential cost-saving reductions. The Coordination team was similar to, and composed of many of the same individuals in, the Red Line Northwest Extension Development Office. The Southwest Corridor Coordination Office was given the responsibilities of coordinating activities and scheduling community meetings that were necessary for the presentation of proposed cost reduction candidates in line and station contracts to the communities, and responsibility for developing a consensus satisfactory to all involved.

The project cost savings study began in late 1981 and continued through the spring of 1982 when it was finally determined that as a direct result of an extremely favorable bid climate, bids lower than anticipated were received on three sizable construction contracts. Based on this fortunate occurrence, it was determined that the Southwest Corridor

project could be built within budget and substantially in conformance with the original design with minor exceptions.

However, in order to achieve this positive outcome, the process required a large-scale cooperative effort between representatives of the MBTA Coordination Office and the Southwest Corridor Project Office, MBTA consultants, and many members of the various community task forces and organizations. A corridor-wide meeting held in Roxbury in late 1981 attracted more than 200 people who expressed anger over the announced anticipated shortfall. Other neighborhood and station area task force meetings were also heavily attended by community residents and officials who strongly opposed any cutbacks in their neighborhood station's design.

Although the process resulted in minor changes to most of the design plans, such as station finishes for the Back Bay and Ruggles Street stations, the outcome for the Forest Hills station in Jamaica Plain required a drastic station redesign. However, this redesign was not entirely due to the cost reduction process.

A community of very active political forces with strong opposition to the proposed highway plan, the residents of Jamaica Plain were always, and continue to be, heavily involved, and community meetings in Jamaica Plain have always attracted substantial attendance. This section in Jamaica Plain was the focus of considerable community activity during the cost reduction process. At the Forest Hills Station Area Task Force meetings about cost reductions, opponents — including influential community political figures — of a proposed parking garage in the original design produced strong arguments that commuters from outside of the Forest Hills area would benefit most if the garage were constructed. In the end, they were successful in persuading the community to abandon plans for the parking garage. The resulting design modification also had a positive effect on the MBTA's overall success in reducing the cost of the project.

The Southwest Corridor Coordination Office remained active beyond the cost reduction process, assuming many of the responsibilities related to construction support

and monitoring. Among its assigned tasks were:

- to respond to all citizen, business, and city, state and federal agency complaints or requests for information or assistance;
- to monitor and measure noise, vibration and dust levels for all project construction contracts;
- to investigate and respond to all public complaints of contract violations or deviations by project contractors;
- to monitor changes and adjustments in designs or contracts that might have an impact on communities;
- to assume direction of the activities of the three Section Planners;
- to monitor the project's Hotline calls;
- to schedule and conduct all community meetings and related activities;
- to serve as the project public information contact, responsible for producing *The Southwest Corridor News*, press releases and other public notices; and,
- to establish, manage and coordinate the Southwest Corridor Damage Review Process for all construction contracts.

The Damage Review Process was introduced in the Southwest Corridor when construction activity in Boston's densely populated Back Bay/South End area resulted in allegations of property damage and complaints from property owners that claims were being ignored or unduly delayed by contractors and their insurers.

The Corridor review process was very similar to that of the Northwest Extension project. Following the submittal of extensive justification for the request for the review process by the Southwest Corridor Coordination Office, approval was granted by the MBTA and funds were released for the Southwest Corridor Project Damage Review Process. An engineering consultant was selected and retained, and an experienced and qualified Damage Review team was recruited to evaluate claims.

As of the beginning of October, 1985, almost 100 claims have been addressed by the

process, and determinations have been made and settlement offers rendered to many of those property owners. As in the Northwest project, the most significant result of this process has been greater community credibility of the MBTA, improved community relations and an expedited method for resolving allegations of property damage.

Active participation has continued throughout the project construction. The Coordination Office staff maintains a close working relationship with citizens and community groups. Construction task force meetings are held regularly in each section in order to provide public arenas for the discussion of issues and resolution of complaints relating to construction activity. In some cases, residents in corridor neighborhoods have raised questions and requested additional design changes. Some adjustments in street design have been made as a result of this participation. In other cases, public meetings were held to consider such proposed changes only to result in the design remaining substantially the same.

As the progress of construction moves toward completion, citizen and community group participation continues and, indeed, expands its issues. The project is beginning to open to community participation the process for the development of land parcels along the corridor. Dating back to the early planning process for the project in the 1970s, a plan for potential uses of the land along the corridor cleared for I-95 was developed and recommendations were made. Potential uses for the available land parcels were described in an MBTA brochure, *The Southwest Corridor Development Plan*, in 1979. This brochure was widely distributed and presented the guidelines and criteria for future implementation of the plan.

After having completed the planning steps required for the implementation of the development process, the MBTA has been holding neighborhood public meetings to elicit response to the plan. Developers' kits for the larger parcels of land are being prepared, and the details of the plan for the use of retail space in new Corridor stations are being finalized. The implementation of the develop-

ment process during the next few years will present opportunities for citizens and community groups to take an active role in determining the characteristics of their neighborhoods.

Community participation also has been, and will continue to be, critical to the acceptance of a plan to offer replacement service for the neighborhoods immediately adjacent to the existing elevated Orange Line structure between the MBTA's Dudley and South Cove Stations in downtown Boston. Following the completion of the project and the opening of the new Orange Line, the old elevated structure along Washington Street will be removed, leaving a transportation service gap for the neighborhoods in that immediate area. As required by the project's EIS, a Replacement Transit Improvement Study has been underway since 1977, and has identified a variety of service alternatives such as light rail, trolleys and buses. Representatives of public agencies and the affected communities have participated in the study and planning process since its inception through a series of informational meetings, including Project Working Committee, Zone, Neighborhood and Project Coordinating meetings. These meetings will eventually focus on developing a community consensus on service alternatives.

Citizens and neighborhood groups of the Southwest Corridor Project will also continue to be involved in the project as the MBTA prepares for the opening of the new Orange Line. Construction of the new parkland areas, in particular, will be the focus of planned community meetings. Future meetings will also discuss the testing of the new rail lines and the need for community attention to, and involvement in, safety issues during testing.

Southwest Corridor communities, through neighborhood crime watch groups, are being asked to cooperate with the MBTA for the protection and security of the newly-constructed facilities in an effort to reduce vandalism and damage. A variety of activities, although presently in the initial planning stages, are being considered so that as many members of the community as possible will be involved in the opening of the new Southwest Corridor Project Orange Line

transit service and stations in 1987.

## **Benefits**

The two projects provided a variety of short-term benefits in addition to the permanent long-term assets of improved public transportation, associated development opportunities and a climate of sound working methods with the public and public credibility. More than 2,000 construction and 40,000 service vendor related jobs were created through the Red Line Northwest Extension's 33 construction contracts. The Southwest Corridor Project, through its 44 construction contracts, has been projected to create approximately 37,000 construction and construction-related jobs.

Despite the immediate and lasting benefits of the projects, the increased attention and demands by citizen and community groups in public works construction programs required extensive community relations efforts by the MBTA and other state and federal agencies that performed key functions in the planning of the projects. Representatives of the various agencies were required to be well prepared and to furnish public opportunities for citizens, community groups and municipal agencies to comment on proposals, and, in some cases, to respond to opposition of proposed plans.

## **Summary**

For both projects, public participation programs have consisted of a planned format for informational, issue-oriented and complaint (related to construction activity) meetings; traditional public information items including press releases, newsletters and public notices; and standard methods of addressing requests for information, concerns and complaints through correspondence and telephone conversations. Each of the projects also had 24-hour hotlines available, with the hotline number widely publicized, for matters of immediate concern.

These programs were provided by the MBTA through engineering and public relations consultants. In addition, an MBTA Construction Community Relations Team was assigned to each project to monitor construction activity and attempt to resolve any

issues or complaints relating to construction as promptly and efficiently as possible. These MBTA teams, the Red Line Northwest Extension Development Office and the Southwest Corridor Project Coordination Office, were unique in terms of MBTA history. For the first time, the MBTA supplied full-time and experienced staff, which in cooperation with the MBTA Project Design and Construction Office staffs and consultants, had direct responsibility to address issues affecting the communities in areas impacted by project construction on a daily basis.

These teams coordinated and directed most of the consultants' public relations activities, and supplied the resources for the development of resolutions of design and construction issues and crises. Many of these issues were unforeseen during the projects' planning period. Some of these issues included public anxiety and concern over the utilization of blasting in Red Line Northwest construction; access to, and stimulation of, businesses in heavily-impacted construction areas for both projects; traffic detours and transit service changes in Southwest Corridor construction activity; a project-wide cost savings effort for the Southwest Corridor Project; and resolution of alleged property damage due to contractors' construction activity in both projects.

Although there are historic, geographic, demographic and economic factors as well as design and construction methods that differ between the two projects, they do share a common feature of being shaped and implemented through public participation. The MBTA, by supplying opportunities to the communities in its construction project areas, has been successful in balancing community needs with its own goal of project schedule adherence within allocated budgets.

## Recommendations

The citizens of metropolitan Boston have exercised public influence to a remarkable degree and played an important role in the shaping and construction of these two large public works projects. Through their participation and active involvement, they have gained new and improved public transporta-

tion services that not only serve their needs, but also represent a real and enduring source of community pride.

However, a critical point should be remembered in the planning, design and construction of any public works project. Namely that it is a *public* works project — a project built by a public institution to meet current and future public needs. A key part of the success of a public works project is that it meets public needs, and in order to meet those needs and define concerns, it is vital that the public participate in the project and be well informed of its course. Built on the experience of the MBTA in the Northwest Extension and Southwest Corridor, some basic recommendations for any public participation program can be made:

1. Attend to all federal, state and local requirements for public participation, hearings and information.

2. Plan for public participation in all phases of the project, almost from the conception of the project and on.

3. Develop formal means beyond minimum legal requirements for public participation in all phases through an office with trained staff to coordinate public participation efforts.

4. Ensure that the community, the public agency and its consultants know how the varying means of participation, and its hierarchy, if any, work and that these means are accessible.

5. Develop a timely and regular informational program detailing all phases of the project, their effects and means of participation and redress.

6. Maintain the flexibility to analyze and react to current situations that might require greater public participation (for example, more public outcry for a greater role in decision-making), that might require a greater amount of information, or that might require additional programs or changes in existing ones.

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