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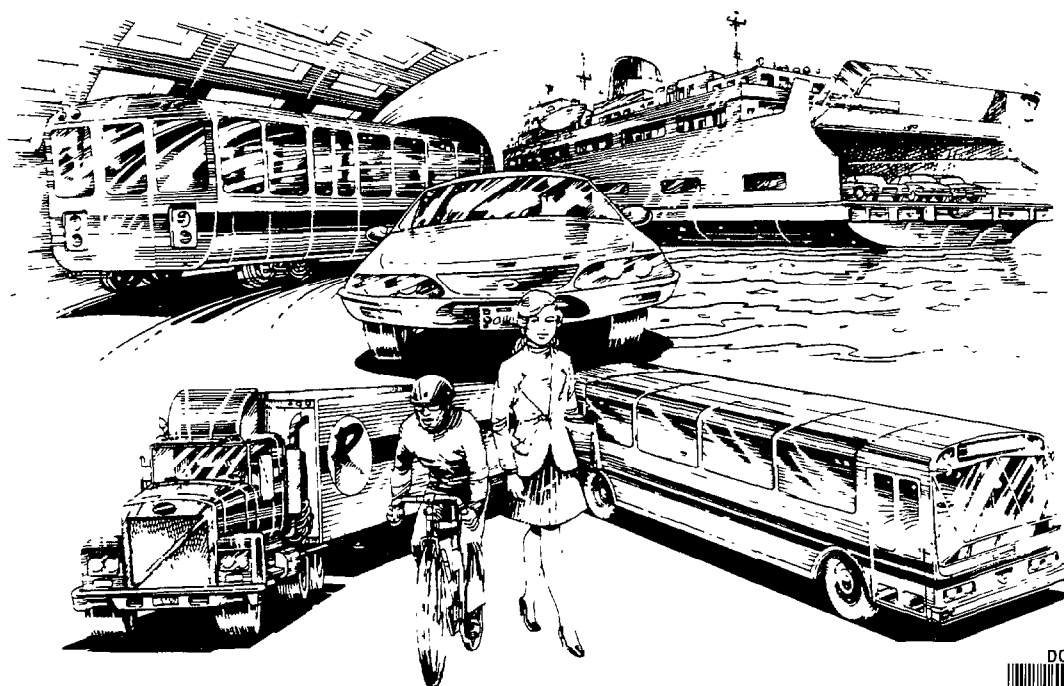
Federal Highway  
Administration

# Intermodal Surface Transportation Efficiency Act

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*Flexible Funding  
Opportunities for  
Transportation Investments*

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for Transportation Investments*

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**Federal Transit Administration  
Federal Highway Administration  
Washington, D.C. 20590**

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# Multimodalism and Flexible Funds

***The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) broke significant ground in giving State and local decisionmakers greater discretion in the use of Federal transportation dollars. In particular, ISTEA's flexible fund programs now provide transportation planners and decisionmakers with the flexibility to fund transportation projects, programs, and initiatives which best meet locally determined goals and objectives for mobility, economic opportunity, and air quality. The key to getting the most out of flexible funding is understanding the multimodal transportation planning process which identifies the most appropriate solutions for our most urgent local and regional transportation problems.***

## **What does a "multimodal" transportation system mean?**

Multimodalism is the integration of all modes of transportation --- highways, public transportation, bicycle and pedestrian facilities --- into an interconnected, "seamless" system. Multimodalism also acknowledges the importance of strategies which go beyond investments in expanded infrastructure --- for example, the implementation of rideshare programs or alternative work schedules --- which make the most efficient use of existing transportation facilities. A multimodal transportation system is a system of complimentary --- not competing --- modes planned and coordinated to provide maximum personal mobility within environmental and financial constraints.

## **How does multimodalism help a community?**

A multimodal transportation system provides the public with several benefits. Multimodalism offers users access to choices among several options for travel, based on individual values of cost, convenience, and travel time. It ensures social equity by providing alternatives to travel by automobile for those populations which do not own vehicles. By shifting trips from the automobile to other forms of travel, auto emissions are significantly reduced and air quality may improve. Moreover, a multimodal approach to transportation planning challenges planners and decisionmakers to rethink past assumptions and develop new and innovative solutions to transportation problems.

Perhaps an example might illustrate the advantages of multimodal planning and investment over traditional highway construction. A major highway which links a community to jobs or shopping suffers from terrible congestion during the morning and afternoon "peak" hours of travel. Adding road capacity might relieve this congestion, but may provide only a partial and temporary

solution: it does nothing to enhance the mobility of those individuals without automobiles, and it could further entice vehicle owners --- who perceive faster travel times because of the road improvements --- to make more and longer trips on the highway. As automobile trips increase in the corridor, congestion ultimately returns and leads us back to the same problem we sought to eliminate in the first place.

Multimodal planning, however, would consider a variety of ways to meet the community's demand for access and mobility. Perhaps improvements to public transportation in the corridor might induce drivers to leave their cars at home and take a bus or train into work. Not only would this relieve the highway of some automobile traffic, but it would provide citizens who do not own vehicles --- or do not care to use their vehicles --- with access to jobs and shopping. Efficiency along the corridor might be further enhanced through the implementation of carp001 programs, high-occupancy vehicle facilities, and advanced technology Intelligent Transportation System (ITS) elements. Adoption by employers of parking management policies, transit fare subsidies, and alternative work schedules which shift travel to "off-peak" hours may further reduce congestion and help sustain improvements yielded by highway investments.

What this example demonstrates is two important goals of multimodalism: 1) investment in one mode (or the "packaging" of investments and policies) should represent an investment in the transportation system as a whole; and 2) implemented solutions can and should be sustainable and serve a long-term need.

## **What facilitates the development of a multimodal transportation system?**

There are several conditions to effective multimodal planning and project development. These include 1) the establishment of multimodal, multi-jurisdictional and

“multi-interest” planning partnerships; 2) the development by this partnership of community and regionwide goals and objectives for transportation, economic, and social development; 3) a “problem-solving” approach to transportation planning; 4) the integration of transportation and land use planning; and 5) taking full advantage of the planning and “flexible funding” provisions contained in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). These five elements of multimodal planning are discussed below.

### *Planning Partnerships*

Multimodalism requires a reinvention of traditional transportation planning. Not only must highway and transit planners begin to work more closely together, they must begin to see the services and facilities they plan within broader goals for community and economic development. To that end, transportation planners need to form planning partnerships with business and community groups, land use planners, locally elected officials, environmental interests, advocates for alternative transportation, and, importantly, the general public.

Many of these players are new to the transportation planning “table”, but all are impacted by transportation decisions, and all have something to offer. The inclusion of these groups provide the multimodal transportation planner with better information about the needs of the populations they plan for, and may help to generate support for innovative solutions to transportation problems. The involvement of local employers, for example, may lead to the adoption of some of the “travel demand management” strategies – i.e. parking management, alternative work schedules, perhaps even telecommuting -- which help to redirect trips off of congested transportation modes.

There is another reason to involve as wide and diverse a range of interests as possible in the transportation planning process. The building of a broad coalition of support for the transportation planning process makes planning activities more credible among these diverse interests, and ensures public “buy-in” of the transportation plans and projects which result from the process. While some planners argue that too much involvement of the public unnecessarily delays the implementation of transportation improvements, the opposite is true: the early and continuing involvement of the public should lead to the development of transportation plans, programs, and projects which are widely supported, thus reducing the likelihood of last-minute delays resulting from legal action brought about by dissatisfied groups.

### *Development of Goals and Objectives*

Consensus on transportation investments is further enhanced by the establishment of a shared vision for the future. In other words, the development of transportation plans, programs, and projects should reflect the priorities of the interests (social, economic, environmental) which function within a given region. The establishment of a planning partnership as described above should thus lead to the development of goals and objectives which will help guide the transportation planning process. Partners need to ask several questions: What aspects of my community do I value? What aspects would I like to see improved? What do I want my community to look like in the future? No doubt that not all groups will share the same exact priorities, and negotiation is critical. The result of this negotiation, however, is the establishment of a foundation for transportation planners to evaluate and select the most appropriate transportation strategies which best meet locally defined goals and objectives for community and regional development.

### **MPO Goals and Objectives**

The East-West Gateway Coordinating Council (EWGCC), the MPO of the St. Louis metropolitan area, properly views transportation as “more than asphalt, concrete, and steel.” (It is) an evolving and dynamic system which links the region’s communities to opportunity and which supports the region as a whole in the nation’s economy.” In its long range plan, titled “*Transportation Redefined*”, the EWGCC sets wide-ranging regional goals and objectives --- for example, ensuring a sustainable and growing economy, providing for opportunities for recreation, cultural expression, and education, managing future development to protect community, environmental, and historical assets --- and then identifies more specific goals which focus on the role that transportation plays in achieving these broad regional objectives. In other words, a shared vision of what the area values most ultimately drives the type of transportation system that will be planned and implemented over the next twenty years and beyond.

For the St. Louis metropolitan area, the transportation planning process is the process in which transportation decisions can be linked to environmental, social, and economic goals. This process further results in the development of solutions to identified problems experienced by the customers --- individuals, communities, and businesses --- of the transportation system. “*Transportation Redefined*” recognizes that the focus of transportation should be the efficient movement of people and goods, not simply the capacity needs of vehicles. A multimodal transportation system which considers alternative facilities, strategies, and policies, therefore, is the most appropriate system for meeting the region’s diverse needs.

### ***Problem Solving Approach***

Transportation planning must be seen as a problem solving exercise. Problem definition is important, and solutions must “fit” the problem, as well as meet the goals and objectives established for the region. Returning to the example given earlier, we could say that a multimodal planning process might define the problem as “a transportation corridor suffers from congestion”. This is much different than a statements such as “the highway needs more capacity” or “the existing local bus service is a poor option to driving, we need light rail.” In the first statement the highway is viewed as a component of a larger transportation system, and it is the job of the transportation planner --in cooperation with their partners mentioned above -- to examine alternatives to address congestion. In the second statement, the problem implies a predisposed solution; in effect, the solution drives the problem, and not the other way around.

Please note, too, that multimodal planning can -- and should -- address environmental, social, and economic problems and concerns. A second problem that needs to be addressed in our example is that low-income, non-automobile owning citizens have poor access to jobs; a third may be that the area suffers from poor air quality. Again, the involvement of the general public provides useful information on social needs, and the development of goals and objectives help the transportation planning partnership to develop transportation solutions which meet a shared vision of the future.

### ***Integration of Transportation and Land Use Planning***

It is obvious that transportation shapes the demand for other types of land use, just as commercial and residential development require transportation infrastructure to provide needed access. Most planners and elected officials see transportation and land use as a “chicken and egg” relationship. At a very basic level, however, transportation facilities are a land use, and the planning of the transportation system with other types of development must be more closely integrated than in the past.

Post 1950’s automobile-oriented suburban development has placed significant demands on our regional transportation systems and facilities. Today, transportation planners --- and American society in general --- are beginning to rethink these past development practices and policies. Congestion continues to worsen, work commutes are getting longer, and air quality

### ***Livable Communities Initiative***

The primary purpose of the Livable Communities Initiative (LCI) is to demonstrate the physical and functional relationship between transit and communities through customer-friendly, community-oriented, and well-designed facilities and services. LCI is not a grant program; rather, it is an approach to providing transportation services which reflect the values and vision of the surrounding communities. Community-sensitive transit facilities and services include those in which customer information is readily available; customers feel safe and secure; transit, pedestrian, and bicycle access is sufficient; parking is carefully managed; and adequate open space is available. These attributes result from a planning and design process with active community involvement and a commitment to integrating land use with transportation planning.

Fifteen projects have been provided by FTA with “seed” money in to illustrate the improvements experienced when implementing concepts proposed by the Livable Communities Initiative, but flexible funds may also be used to fund community-oriented transportation projects and programs. Day-care and health facilities located at transit and intermodal terminals, pedestrian walkways, bicycle trails and greenways, and land use planning activities are all examples of LCI-type projects eligible for funding under the flexible fund programs described in this document.

improvements resulting from new technologies are increasingly offset by increases in vehicle miles traveled. At the same time, public resources for providing new transportation facilities (and maintaining existing facilities) are decreasing. While it is becoming increasingly clear that we can’t build our way out of congestion, we may be able to change land use patterns which perpetuate the kind of development that has contributed to these problems.

High density, mixed-use development around transit facilities, “joint” development of transit sites, bicycle trails and supportive facilities, and safe and effective pedestrian access all help to encourage non-automobile travel (as well as making shorter many trips that must be made by automobile). Projects supported under the U.S. Department of Transportation’s Livable Communities Initiative provide excellent examples of how an inclusive, participatory planning process can lead to the development of transit supportive land use policies which enhance personal mobility and help to build stronger, more vibrant communities (see box above).

***ISTEA Planning and Funding Provisions***

Changing our traditional approach to transportation planning is an ambitious task. Fortunately, ISTEA provides a framework for developing the new partnerships and planning procedures necessary to achieve these objectives. On October 18, 1993, the Federal Highway Administration and Federal Transit Administration issued joint regulations to help guide statewide and metropolitan transportation planning. These regulations address, among other things:

- ◆ The development of multimodal transportation plans to guide the establishment of a long range vision for transportation in a given state or urbanized area.
- ◆ The development of a transportation improvement program, or "TIP", to implement the goals and objectives contained in the plan.
- ◆ The implementation of congestion management systems to identify and evaluate low cost strategies to mitigate and manage congestion in urbanized areas.
- ◆ The undertaking of major investment studies to address the evaluation of alternatives when a transportation problem requires significant capital investment.
- ◆ The development of procedures to facilitate the involvement of the general public in transportation planning activities.

Another very important tool for the development of mul-

timodal plans, programs, and projects is "flexible funding." Unlike traditional categorical funding programs which restrict project eligibility to narrowly defined uses, flexible funding supports multimodal planning and project development by eliminating strict modal criteria as a condition of use. Instead, Federal flexible funds may be used for highway, transit, and multimodal capital and planning investments --- whichever transportation solutions are identified by state and metropolitan planning processes as best meeting locally defined goals and objectives. Over the 6 year life span of ISTEA, over \$70 billion of Federal highway and nearly \$10 billion in Federal transit funds may be used flexibly. And while we have seen a gradual increase in the use of flexible funds for innovative, multimodal projects, flexible funding remains a largely under-utilized resource.

Realigning the responsibilities, roles and relationships of players and other participants in the transportation planning process will not happen over night. ISTEA provides a necessary starting point, but it will be up to each area's planning partnership to effectively implement a multimodal approach to transportation planning which meets locally determined goals and objectives for community development. The following provides a summary of the ISTEA planning provisions, and highlights examples of several projects and processes which have embraced the spirit of ISTEA and have used flexible funding to realize a new vision for the planning and delivery of transportation services.

**Flexible Funding Opportunities for Transportation Investments 1991-95**

The use of flexible funds for transit projects and other multimodal investments has increased dramatically since 1991. Whereas less than \$6 million in Federal-aid Urban System funds were transferred by FHWA to FTA in the year prior to the passage of ISTEA, FTA administered over \$800 million for transit related purposes in FY 1995. From 1992 through 1995, over \$2 billion dollars of flexible funds have been obligated by FTA for transit projects and other multimodal investments.

(in millions of dollars)

<b>FHWA Transfers to FTA</b>	<b>FY 91</b>	<b>FY 92</b>	<b>FY 93</b>	<b>FY 94</b>	<b>FY 95</b>	<b>Total</b>
<b>CMAQ</b>		177.0	298.4	317.0	484.1	1,276.5
<b>STP</b>		25.2	146.9	183.2	200.3	555.5
<b>Interstate Substitute</b>		100.0	0.1	83.3	83.3	267.7
<b>FHWA Earmarks/FAUS</b>	<u>5.8</u>	<u>1.6</u>	<u>23.8</u>	<u>26.2</u>	<u>34.1</u>	<u>857.7</u>
<b>Total Transfers to FTA</b>	<b>5.8</b>	<b>303.8</b>	<b>469.2</b>	<b>609.7</b>	<b>801.8</b>	<b>2,184.5</b>

In addition to these amounts, FHWA has since FY 1992 administered billions of dollars in STP, CMAQ, and NHS funds for multimodal transportation projects such as HOV facilities, vanpool projects, and park and ride lots, as well as for multimodal planning activities. The point here is that for most multimodal projects, funds need not be transferred between FHWA and FTA. It is important that project sponsors and collaborators work closely with their counterparts from FHWA and FTA to maximize their use of ISTEA's flexibility and ensure the most timely and efficient delivery of available resources.

# ISTEA Planning

*Multimodal uses of Federal Highway and Transit Administration funds have resulted from a collaborative, multimodal approach to transportation planning and programming, with projects being prioritized by their ability to meet locally determined needs rather than because of Federal requirements dictating where money must be spent. Flexible funding is working in those areas which have "institutionalized" a truly multimodal planning process and see flexibility as an opportunity to meet multiple goals for improving air quality, enhancing mobility, and achieving an equitable distribution of transportation services. The following section summarizes the Federally-required transportation planning process, the planning tools that local transportation entities can use to get the most out of flexible funding*

## Multimodal Transportation Planning

ISTEA requires a *continuing, cooperative, and comprehensive transportation planning process* in all metropolitan areas and throughout each State. The planning function in urbanized areas of greater than 50,000 population is conducted by officially designated metropolitan planning organizations (MPOs); state Departments of Transportation (DOTs) are responsible for statewide transportation planning activities. In both cases, ISTEA requires that MPOs and States work with each other, as well as with transit operators, other affected local and state agencies, and the general public in the development of multimodal transportation plans and improvement programs. Cooperatively developed *statewide and metropolitan transportation plans* must forecast future growth, identify the needed transportation investments to meet this growth, and ensure the maintenance and efficient operation of existing transportation systems **over a 20 year timeframe**. Projects identified through the planning process and included in transportation plans are then prioritized and programmed in *transportation improvement programs (TIPs)* at the metropolitan level and consolidated throughout the State in *statewide transportation improvement programs (STIPs)* (which include both urban and rural areas). These near-term programming documents serve as the agenda for implementing a multi (at least three) year package of highway, transit, bicycle and pedestrian projects for each metropolitan area and throughout the State. **To qualify for Federal financial assistance, all projects contained in TIPs and STIPs must be derived from an adopted transportation plan.**

## Major Investment Studies

Where the metropolitan planning process identifies the need for a project to provide significant added transportation capacity on a given corridor (or in a defined sub-area of the metropolitan area) which will have an impact on the regional transportation system and which may involve federal funding, a *major investment study (MIS)* is required. The MIS should 1) establish the nature of present and future problems in a corridor or sub-area and 2) identify all

reasonable alternative strategies for addressing transportation demand and produce information on the costs, benefits, and impacts of these alternatives. Flexible funding supports the analysis of a wide range of multimodal options within the MIS by providing capital assistance to most potential study outcomes, be they highway, transit, or bicycle facilities or transportation demand and/or congestion management strategies.

Flexible funds may also be used to fund planning costs associated with conducting major investment studies, as well as provide financial support for many other transportation planning activities. See page 15 for an example of how two areas have embraced the MIS concept.

## Congestion Management System

ISTEA requires for all transportation management areas (TMAs: urbanized areas over 200,000 population and other areas designated at the request of locally elected officials and the State Governor) that the *congestion management system* be a part of the transportation planning process. The intent of the CMS is to provide a framework for 1) the identification of corridors and subareas where congestion is occurring or likely to occur; 2) an evaluation of the cause and characteristics of congestion within these corridors/subareas; and 3) the identification and evaluation of potential strategies to manage congestion and improve the mobility of persons and goods. In TMAs that are nonattainment for carbon monoxide and ozone, Federal funds may not be programmed for highway projects that will result in a significant increase in single occupant vehicle (SOV) capacity *unless* the project is based on an approved CMS.

Potential congestion management strategies include travel demand management measures, traffic flow/operational enhancements, facilities and programs which encourage the use of bicycles for non-recreational purposes, and transit capital and operating improvements. The CMS process is intended to allow specific mobility-related problems to drive the identification of solutions, rather than assume that adding capacity --- either highway or transit --- is the **de facto** preferable solution. Like the alternatives evaluated as



part of the MIS process, most CMS strategies are projects and programs which are eligible for flexible funding.

### **Financial Constraints**

ISTEA stipulates that metropolitan plans, TIPS, and STIPs include only those projects for which funding can be reasonably expected to be available. The intent of "financially constrained" plans and programs is to focus investment on operating and maintaining the existing transportation system and to prevent TIPS from becoming unrealistic "wish lists" of projects. Furthermore, in nonattainment areas, fiscally constrained plans and TIPs ensure that sufficient funds are available for the implementation of required transportation control measures (TCMs; see appendix I) and that the sum of transportation improvements identified in plans and contained in TIPs demonstrates conformity with State Implementation Plans for the reduction of transportation related pollutants.

Because of these financial requirements, projects generated by the transportation planning process must not only meet cooperatively defined needs, but must be developed within the context of realistic funding availability. Flexible funds give decisionmakers great leverage in long term financial planning by expanding the potential availability of funding beyond traditional specific Federal highway or transit allocations.

### **Planning Factors**

To help set a direction for the development and preparation of plans, TIPs, and major investment studies in metropolitan areas, ISTEA has identified 15 factors which must be explicitly considered throughout the transportation planning process (recent legislation designating the National Highway System has added a sixteenth factor; see box to the right). These factors address both transportation issues (i.e. alleviating congestion, preserving existing facilities) and the need for the process to encompass broader issues such as consistency with land use planning and the affects of transportation investments on surrounding communities.

The joint FTA/FHWA planning regulations further define 23 factors for consideration in the development of statewide plans and STIPs. Metropolitan and statewide planning factors, combined with the cooperation of affected agencies and the need to solve the air quality and congestion problems faced in most urban areas, should serve as the building blocks for the development of multimodal planning and project evaluation criteria. As demonstrated by the included case studies, the development of multimodal project evaluation criteria is an important component of any plan-

#### **Metropolitan Planning Factors**

1. The preservation of existing transportation facilities
2. Consistency of transportation plans with Federal, state, and local energy conservation programs and policies.
3. The need to relieve congestion and to prevent congestion where it does not yet occur.
4. Consistency of transportation plans and programs with land use plans.
5. Where appropriate, the programming of funds for transportation enhancement activities.
6. The effect of transportation projects on the surrounding communities. Such consideration should include an analysis of the cost-effectiveness of alternative investments to meet the demand for transportation services.
7. Access to other transportation facilities (such as air and seaports, freight distribution routes), national parks, and border crossings.
8. Connectivity of roads within metropolitan areas with roads outside of such areas.
9. Needs identified through transportation management systems.
10. The preservation of rights-of-way for future transportation improvements.
11. The enhancement of the efficient movement of freight.
12. The use of life-cycle costing for bridges, tunnels, and pavements.
13. The overall social, economic, energy, and environmental effects of transportation decisions and the need to work with the public and affected agencies (such as housing, community development, and environmental resource management agencies) to ensure that transportation plans are compatible with social and environmental goals.
14. The expansion of transit services, where appropriate.
15. Improving security on transit systems.
16. Recreational travel and tourism.

ning process which intends to get the most out of flexible funding.

### **Project Evaluation Processes**

Prior to the availability of flexible funding, the selection of transportation projects was driven in large part by the narrowly defined eligibility of the source of funds being used.

These Federal restrictions discouraged the development of multimodal project evaluation criteria because any type of multimodal analysis could not be supported by traditional funding mechanisms. Flexible funding, however, eliminates these Federal funding limitations, and the development of multimodal project evaluation criteria allows planners to effectively rate the various highway, transit, and other modal improvements to evaluate how well they

**Multimodal Project Evaluation and Priority Setting**

An excellent example of an inclusive and cooperative approach to multimodal planning and programming is the process that the Metropolitan Transportation Commission (MTC), the MPO for the San Francisco Bay Area used to develop multimodal criteria for the allocation of flexible funding. One of the first regional planning bodies to recognize the opportunities provided by ISTEA, the MTC established in early 1992 an AdHoc Committee -- composed of transit operators, operators of regional ports and airports, representatives from city and county governments, the State Department of Transportation and Air Quality District -- to develop regional objectives for the USE of flexible funds and multimodal criteria to score and rank projects funded under the STP and CMAQ programs.

MTC adopted a three stage evaluation process for allocating flexible funds to worthy transportation projects. The first stage consists of a basic eligibility test to ensure that the proposed projects meet ISTEA requirements and demonstrate adequate local commitment and support. Projects meeting these screening criteria move on to the second stage, an innovative scoring system which ranks potential activities according to their ability to meet four cooperatively developed goals for the provision of transportation services throughout the region. These four categories of criteria - 1) maintaining the metropolitan transportation system; 2) improving the efficiency of the metropolitan transportation system; 3) expanding the system to meet current and future demand; and 4) addressing external impacts such as air quality standards land use goals, and the potential for reducing SOV trips -- are allocated specific point levels, with projects best meeting these goals receiving the highest scores. Finally, ranked projects must meet a series of programming principles which guarantee that the entire program of transportation improvements presents a balanced, compatible package of investments that improves air quality, enhances mobility, and are ready for implementation.

MTC's process, which has been adopted by other MPOs, has resulted in an extremely diverse program of transportation investments, including significant allocations of STP funding for transit, bicycle, and urban arterial projects with multimodal elements.

By viewing the 15 factors contained in the ISTEA legislation as building blocks for the development of multimodal evaluation criteria, the *North Central Texas Council of Governments (NCTGC)*, the MPO of the Dallas-Ft. Worth region, established its process for allocating flexible funding. NCTGC added several regional goals to the factors, and then submitted a total of 21 criteria to its Policy Board, highway, transit, and travel demand management committees, and community transportation groups for review. Specifically, members of these groups were asked to assign weights to each of the criteria, to combine complimentary criteria, and to formulate final evaluation criteria in time for the development and submission B FHWA and FTA of its FY 1996 TIP.

NCTGC continued to look at ways to improve its evaluation criteria, and its Policy Board approved a revised set of criteria in November of 1993. The MPOs final evaluation criteria for the allocation of STP and FTA Urbanized Area Formula funds reflects regional priorities such as current and future Cost-effectiveness, air quality and energy conservation goals, and social mobility. Acknowledging ISTEA's requirement that transportation plans and improvement programs be fiscally constrained, the final criteria lends particular weight to a project's local cost participation. CMAQ project evaluation criteria was similarly revised to give more points to Transportation Control Measures and social mobility projects than in the original criteria.

address the needs defined by the transportation planning process.

To be most effective, project evaluation criteria must be credible to the implementing agencies affected by them and understandable to the decisionmakers responsible for approving transportation improvement programs. The key to establishing such criteria is the broad participation of affected agencies in the development of evaluative measures.

**Public Involvement**

ISTEA further requires that participation in the development of plans, programs, and projects extend beyond institutional entities and embrace the concerns of the general public. To the extent that transportation investment decisions have far-reaching economic, environmental, and

social effects upon the communities they impact, the involvement of the public is critical in helping MPOs and States address community values and needs. Furthermore, an ongoing and open public participation process, which provides the public with **early** opportunities for input into plans and programs, helps to build broad-based consensus for these planning efforts and minimize dissatisfaction with resulting transportation improvements.

Public involvement should be a significant element of metropolitan and statewide planning, programming, and project prioritizing processes, as well as MIS and management system activities. An educated and informed public is the key to ensuring that this involvement is meaningful, productive, and ultimately reflect **community goals** for transportation, economic development, and quality of life.

# Flexible Fund Programs

*Another element of a successful multimodal planning process is understanding the Federal, State, and local funding sources which support the implementation of transportation improvement programs. The following summarizes FHWA and FTA flexible funding programs and the improvement opportunities provided by them. While all of the programs described below may be considered "flexible", it is important to consider and understand the distinct eligibility requirements for the use of each funding source,*

## The Surface Transportation Program

The Surface Transportation Program (STP) provides for the widest flexibility of ISTEA's formula programs. STP funds may be used for several highway and transit capital and planning activities, including:

Capital	Planning
Construction/rehabilitation of roads and bridges	Surface transportation planning activities
Public transportation capital improvements	Development of ISTEA management systems
Car/vanpool projects	Wetland mitigation
E fringe and corridor parking facilities	Highway and transit research and development
Bicycle and ped facilities	Environmental analysis

Other eligible projects under the Surface Transportation Program include highway and transit safety improvements, capital and operating costs for traffic management and control projects, and most Transportation Control Measures (TCMs; see appendix 1) established by the Clean Air Act Amendments of 1990 (CAAA).

The Surface Transportation Program is authorized in ISTEA at \$23.9 billion over the life of the Act. Several hundred million dollars in "apportionment adjustments" are added to each year's program; in addition, in fiscal years 1996 and 1997, Reimbursement funds for previously constructed non-Federally aided Interstate highways have been added to the annual Surface Transportation Program.

STP funds are distributed among various population and programmatic categories. Some program funds are made available specifically to metropolitan planning areas containing UZAs over 200,000 population; STP funds are also set aside to areas under 200,000 and 5,000 population. The largest portion of STP funds (about 37.5%) may be used **anywhere** within the State to which they are apportioned.

## STP Transportation Enhancements

About ten percent of the Surface Transportation Program has been set aside for transportation enhancement activities. Enhancement projects are intended to integrate transportation facilities into their surrounding communities by increasing public access and enjoyment. They can also be stand-alone projects with an identifiable relationship to the intermodal transportation system. Transportation enhancement projects should be generated from the metropolitan and statewide transportation planning process described in the previous section and must be based on strong community support.

Ten specific categories of transportation enhancements are eligible for funding. Please note that the list is definitive; only those activities listed below are eligible for transportation enhancement funding:

1. Provision of facilities for pedestrian and bicycles.
2. Acquisition of scenic easements and scenic or historic sites.
3. Scenic/historic highway programs.
4. Landscaping and other scenic beautification.
5. Historic preservation.
6. Rehabilitation and operation of historic transportation facilities (including railroads and canals).
7. Preservation of abandoned railroad corridors (and their conversion to pedestrian and bicycle trails).
8. Control and removal of outdoor advertising.
9. Archeological planning and research.
10. Mitigation of water pollution due to highway runoff.

## Congestion Mitigation and Air Quality Improvement Program

Consistent with the intent of flexible funding, the Congestion Mitigation and Air Quality Improvement (CMAQ) Program is distinguished by its objectives --- i.e. improving our Nation's air quality and managing traffic congestion --- rather than by typical modal eligibility requirements. CMAQ projects and programs are often innovative solutions to common mobility problems and are driven by Clean Air Act mandates to attain national ambient air

quality standards (NAAQS). Eligible activities under the CMAQ program include:

- ◆ Transit system capital expansion and improvements which are projected to realize an increase in ridership. In limited cases, operating costs associated with new transit service which has been specifically developed for air quality benefits are eligible for CMAQ funds for a maximum of two years.
- ◆ Travel demand management strategies and shared ride services.
- ◆ Traffic flow improvements such as incident management initiatives, ramp metering, timed traffic signalization, and the construction and dedication of HOV facilities.
- ◆ Pedestrian and bicycle facilities, as well as promotional activities which encourage bicycle commuting.
- ◆ Automobile inspection and maintenance programs.

Eligible TCMs contained in a State Implementation Plan for reducing airborne pollutants are at all times provided the highest priority for CMAQ funding. Funds under the \$6 billion dollar program must be used in areas designated by the Environmental Protection Agency as being "nonattainment" for carbon monoxide and ozone NAAQS (see appendix 2) or in areas redesignated from nonattainment to maintenance.

Funds are apportioned to States based on a formula which considers the severity of its air quality problems as of FY

**Community Support: the Key to Enhancement Projects**

The involvement and support of affected communities are critical to the success of transportation enhancement projects. One example of a community-supported enhancement project is the *Anacostia Tributaries Trail in Prince George's County, Maryland*. This 12.3 mile bike and pedestrian trail will connect existing multi-use trails into a 24 mile greenway system linking Wheaton Regional Park in Montgomery County to Greenbelt National Park in Prince George's County, Maryland. The completed trails will also provide greater access to public transportation.

Grassroots efforts to complete these projects have been underway since the 1970s. This is significant inasmuch as the trails will also serve as one of the anchors of an inner-beltway revitalization effort affecting several densely populated, racially mixed neighborhoods which have previously demonstrated a substantial level of citizen involvement and strong locally elected official support. As evidence of that involvement, only half of the total cost of the project will be paid for with STP enhancement funds; the remainder will be provided by local community groups under an innovative matching funds arrangement developed by the State of Maryland.

**CMAQ in Cincinnati**

The city of Cincinnati, Ohio, is classified as a Moderate nonattainment area for ozone. On several days each year, particularly high levels of ozone creates a health threat that requires the declaration by the city of an "ozone alert."

In an effort to reduce the amount of vehicle trips --- and their resulting automobile emissions --- on ozone alert days, the Southwest Ohio Regional Transit Authority (SORTA), in cooperation with the region's MPO and the Ohio Department of Transportation --- has initiated a Reduced Fare Ozone Alert Project. Under this project, the Metro bus system, operated by SORTA, lowers bus fares to a flat 25 cents on all weekdays in which an ozone alert or watch is declared. CMAQ funds assist Metro in recovering lost revenue due to the fare reduction. On the first day of the project, July 14, 1995, local officials estimated that the reduced fare program resulted in an 18% increase in bus ridership and a reduction of 12,000 automobiles on the road.

In addition to Cincinnati, transit operators in Dallas-Ft. Worth, Tulsa, and Oklahoma City have turned to CMAQ to help defray the costs of free or reduced fare transit during air quality emergencies. Ridership increases of 10-25% on these days have helped to mitigate ozone concerns, while maintaining needed mobility.

1994. States which are in attainment of air quality standards receive 0.5% of the national program, which may be used for any project or program eligible for assistance under the Surface Transportation Program.

**National Highway System**

In November, 1995, President Clinton signed into law the National Highway System (NHS) Act of 1995. The Act officially establishes the National Highway System and makes available funding for a wide range of transportation activities on the NHS. Eligible highway and transit projects under the NHS program include:

- ◆ Construction and rehabilitation of roads and bridges.
- ◆ Fringe and corridor parking facilities.
- ◆ Bicycle and pedestrian facilities.
- ◆ Carpool and vanpool projects.
- ◆ Public transportation facilities in an NHS corridor, provided that such facilities are deemed cost effective and improve the level of service on a specific NHS limited access facility.

ISTEA authorized funding for the NHS at \$21 billion over six years. Fifty percent of a State's NHS apportionment

may be transferred to the STP (although up to 100% may be transferred with the approval of the U.S. Secretary of Transportation).

### **Funding Restoration**

The NHS Act also restores a portion of FY 1996 Title 23 (Highways) funding which was reduced due to budget compliance provisions contained in ISTEA. These restored funds may be used for any purpose eligible under the Surface Transportation Program or other Chapter 1, Title 23 Federal-aid programs.

### **Bridge and Interstate Maintenance programs**

Bridge Replacement and Rehabilitation program funds are apportioned among States based on the square footage of "deficient" highway bridges inventoried by each State. Up to 40% of Bridge program funds may be transferred by States to the STP or NHS for purposes consistent with either program.

Interstate Maintenance program funds are apportioned to States based on interstate lane miles and vehicle miles traveled criteria established by Congress. Each State may unconditionally transfer up to 20% of its Interstate Maintenance apportionment to the STP or NHS. In addition, if a State certifies that its apportionment is in excess of its maintenance needs, it may, upon approval by the Secretary of Transportation, transfer this excess amount to the STP or NHS.

Funds transferred by either program to the STP may be used anywhere within a State.

### **Donor State Bonus and Minimum Allocation**

The Donor State Bonus and Minimum Allocation programs are additional equity provisions which ensure a return to "donor" States which contribute more to the Highway Trust Fund than they receive in Federal-aid apportionments. Like the STP, a portion of the Donor State Bonus and Minimum Allocation funds are earmarked for use in areas of specific population thresholds. Funds available under these categories may be used for any purpose eligible under the Surface Transportation Program.

### **FTA Urbanized Area Formula Transit funds**

FTA's Urbanized Area Formula Program provides transit capital and operating assistance to metropolitan areas of 50,000 and more population. Urbanized Area Formula funds apportioned to TMAs which cannot be used for the

payment of transit operating expenses may be made available for highway projects if the following three conditions are met:

1. The use of these funds for highway purposes is approved by the MPO after appropriate notice and opportunity for comment and appeal are provided to affected transit providers;
2. The funds are not needed for capital transit investments required by the Americans with Disabilities Act of 1990;
3. State and local funds used to match Urbanized Area Formula funds made available for highway purposes are also eligible to fund either highway or transit projects.

#### **Flexing Transit Funds for Highway Use**

On April 26, 1994, the Board of Directors of the Mid-America Regional Council (MARC), the metropolitan planning organization for the Kansas City urbanized area, approved a memorandum of understanding with Johnson County, Kansas, and the Kansas City Area Transportation Authority (KCATA) which set into motion the Nation's first transfer of FTA formula transit funds to FHWA for highway improvement purposes. The proposed transfer of \$750,000 in Urbanized Area Formula funds to the Surface Transportation Program demonstrates an innovative, cooperative approach to using funding flexibility for meeting the investment needs, regardless of mode, identified by a multimodal transportation planning process.

Johnson County, which through the Transit division of its Transportation Department offers both fixed-route and demand-response public transportation services, was looking for ways to supplement operating revenues for fiscal years 1995 and '96. At the same time, capital funds were needed for critical road improvement projects within the County. Because of the flexibility of both local and Federal funding sources, however, MARC saw an opportunity to transfer \$375,000 FY 95 and '96 Urbanized Area Formula capital resources to the Kansas Department of Transportation's Surface Transportation Program to add needed capacity to a congested local arterial; this, by agreement, would allow the overmatch portion of the local funds previously committed to the road project to offset operating expenses of Johnson County Transit. The transfer of transit capital to highway capital funds, and the subsequent "trading" of these highway funds for transit operating assistance, demonstrates that funding flexibility, coupled with inter-agency cooperation, can work for the benefits of all modes.

Urbanized Area Formula transit funds have also been used for highway improvements in Spokane, Washington.

# Flexible Fund Management

*While fund flexibility has often been thought, and measured in terms, of their transferability between the Federal Highway and Transit Administrations, it must be noted that several FHWA programs may provide for transit-related projects without funds actually being administered by FTA. For example, eligible projects on the National Highway System include capital investments in transit, provided they meet the conditions described in the previous section. The Interstate Maintenance program also provides for specific, limited, transit opportunities.*

*As importantly, multimodal projects such as HOV lanes and park and ride lots, as well as TSM and TDM strategies and surface transportation planning activities, may be funded with flexible resources and administered through either agency. Funding flexibility means that for many multimodal projects, local and State officials have discretion in choosing how funds are to be administered. However, it is critical that State and local manners understand FHWA's obligation limitation mechanism and FTA's grant administration procedures, and that they work closely with their FTA and FHWA counterparts to determine a strategy for managing flexible funds.*

## **FHWA Obligation Ceiling**

For budgetary reasons, each fiscal year a ceiling is placed on most programs contained in the overall Federal-aid highway program. What this generally means is that the sum total of all FHWA obligations in any fiscal year for these programs (including STP, CMAQ, and other flexible programs) may not equal the sum total of available funds for that year; instead, each State has the authority to obligate only up to its "obligation ceiling". The gap between the sum of FHWA apportionments and the obligation ceiling is thus carried over as an unobligated balance, which may then be made available for obligation in future years.

Because this ceiling is applied by Congress to the sum total of all Federal-aid highway and highway safety construction program apportionments and not to each individual program which collectively make up this total, States have the flexibility to obligate the mix of FHWA programs which best meet their transportation needs. MPOs, transit operators, and other project sponsors need to be aware, however, that this choice typically allows States to obligate funds for projects that are immediately ready for implementation (e.g. contract letting) regardless of individual funding; this, in turn, may prevent States from obligating their full apportionment of STP, CMAQ, or other flexible funds if a State has already reached its obligation ceiling.

It should be noted that FHWA flexible funds made available to FTA are counted against a State's obligation limitation at the time of the transfer, not with the obligation by FTA of the funds. Furthermore, any obligation authority which individual States do not expect to utilize by the end of the fiscal year is redistributed in August to other States that are able to utilize more than their share of the total obligation limitation. This annual redistribution of obligation authority provides some MPOs and transit operators another opportunity for funding if projects are already in an approved STIR and are ready to go.

States which use up both their original ceiling and their re-distributed authority may further qualify for a bonus ceiling. This additional authority is usually set at an amount equal to 2.5% of the State's unobligated balance.

## **FTA Procedures**

FTA's obligation ceiling is applied to each individual program, rather than as an overall ceiling for all programs. For FTA formula programs (for example, the Urbanized Area Formula program), the obligation limitation for a particular fiscal year consists of the current-year apportioned funds **plus** any prior-year unobligated funds. Available current-year funding for each FTA program is published annually in the Federal Register following passage of the annual appropriations act.

Since flexible funds transferred to FTA are already counted against FHWA's obligation ceiling, they are not affected by the FTA limitation.

Clearly, it is essential that all players engaged in metropolitan and statewide planning activities understand both the FTA and FHWA obligation limitation mechanism, and work together to best manage its State's obligation authority. In addition to carefully monitoring the status of the limitations to avoid funding shortfalls and to take advantage of any possible authority redistribution, project sponsors should also try and get their projects programmed as early in the fiscal year as possible. The incremental "phasing" of federal funds for major construction projects over a multiyear period rather than a larger, one-time obligation, is another viable strategy to get the most out of a State's obligation limitation.

## Case Studies

### Pedestrian Accessway in Cleveland

In the last 10 years, downtown Cleveland, Ohio, has enjoyed an amazing renewal. Rehabilitation of the multimodal Tower City station has dramatically improved rail access to downtown employment and shopping, and subsequent development --- such as the city's Gateway Sports and Entertainment Complex, home of the baseball Indians and basketball Cavaliers --- has further revitalized the central business district, generating even more jobs and retail opportunities.

An important piece of the city's redevelopment has been the construction of a Passenger Accessway which links the Tower City rapid transit station with the Gateway Complex. The 1,050 foot accessway, built by the Greater Cleveland Regional Transit Authority and funded with \$8,000,000 in CMAQ resources, provides a climate-controlled pedestrian connection between downtown's main transit terminal and the Gateway. The accessway effectively extends access of the RTA's light rail system to the Gateway Complex, thus reducing the need for parking at the Gateway and relieving congestion on the area's surrounding streets and highway network. Furthermore, the accessway is totally grade separated; users do not have to cross downtown arterials to gain access to the Gateway, ensuring a safe and convenient link between the two facilities.

Since the Passenger Accessway opened in 1994, more than 940,000 transit trips have been linked to it, removing 625,000 automobile trips and 5 million vehicle miles from the road system. Seventeen percent of fans attending sporting events at the Gateway in 1994 took advantage of public transportation to reach it.

**Flexible funds can be --- and have been --- used for a variety of transportation projects and programs. The following provides several more examples of how flexible funds have worked for communities around the nation, and how the key elements of a multimodal planning process -- the development of *planning partnerships, integration of transportation and land use, and taking a problem-solving approach to transportation planning* --- can help areas maintain mobility, reduce congestion, and provide more options for travel, while promoting community and economic development goals,**

### Partnerships in Project Development

One of the keys to successful project planning, development, and implementation is soliciting input and gaining support from a broad range of community interests. In Grand Rapids, Michigan for example, the region's transit authority (GRATA) organized a committee of community leaders and citizens to act as an advisory and coordinating body to GRATA's long range planning effort. The committee, along with transit and MPO staff, will create and evaluate visions of what a multimodal transportation system will look like in Grand Rapids, and how investments in transportation can help reduce commuting costs, traffic congestion, parking requirements, energy consumption and air pollution. Among other activities, the committee is visiting model transit communities to determine what lessons they can bring to Grand Rapids. Some of the ideas generated to meet these goals include a reverse commute service; rideshare marketing; and the implementation of a new downtown Circulator service. GRATA has utilized nearly \$5 million in CMAQ funds over the last three years to fund these and other improvements, and their multimodal task force continues to generate new and innovative ideas.

A similar approach to participatory planning is occurring in Berks County, Pennsylvania. The Reading Area MPO created a **CMAQ Task Force**, comprised of 25 representatives from area businesses, the region's transit provider, and city and county planning officials, to review all CMAQ projects proposed for the region+ in addition to meeting air quality objectives, CMAQ projects must be endorsed by the committee as being consistent with regional needs and priorities before they can be included in the area's TIP. Among the projects endorsed by the task force are a series of park and ride lots to relieve congestion on major arterials.

The wide range of multimodal projects eligible for assistance under flexible fund programs require a more inclusive approach to goal formulation and project development. The incorporation of community and business interests helps to generate innovative ideas and build broad consensus for investments in improving air quality.

**CMAQ: Planting a Seed in Santa Barbara**

In 1993, Santa Barbara City College in California was encountering severe traffic congestion and parking shortages, and looked to the city's Metropolitan Transit District (MTD) for help in solving these problems. After looking at the area's demographics and student's commuting behavior, the MTD found that Isla Vista, a community just west of Santa Barbara with a large student population, had no direct bus service to the college. Existing travel by bus required a transfer at the city's downtown Transit center to a City College bus. The average trip time for this commute was 55 minutes, and, consequently, few students rode the bus.

**MTD recommended the implementation of a new express route between Isla Vista and the college.** The objective of the service was to provide a shorter, more direct route to the college which would effectively compete with the automobile in terms of trip time. Of course, adding new service would result in reducing needed service on other lines, so additional funding would be required. With the backing of the college, and the support of the region's MPO, the MTD sought and received \$320,000 in CMAQ funds to initiate the Isla Vista Express service.

The express bus was an immediate success: trip time by bus was reduced to 30 minutes, less than travel by automobile. Use of the service increased steadily; within two years, daily ridership from Isla Vista to City College had increased by 255%. This increase in new bus riders proved to be decisive in the campus' approval, in April, 1994, of establishing a bus pass program, to be paid for by student fees. Earlier attempts at passage of a bus pass program had been unsuccessful.

The pass went into effect in August 1994. Overall MTD ridership subsequently expanded by 5%, primarily because of the increase in City College pass users. Funds from the student pass program has enabled the MTD to incorporate the Isla Vista Express into regular route structure after CMAQ funds expire.

The Isla Vista Express has effectively met the traffic mitigation objectives pursued originally by MTD and City College. Moreover, it has contributed to a reduction in SOV travel in the region. Perhaps most importantly, the success of this new service has helped the MTD to gain credibility and support. For subsequent service improvements, some of them funded with additional CMAQ resources.

**Beaver County's Mobility Manager**

The Beaver County Transit Authority (BCTA) provides limited fixed route and paratransit services in western Pennsylvania. Completion of the nearby Pittsburgh International Airport and the resulting associated development has put pressure on the Authority to expand its scope of services to reach a rapidly growing market,

Using STP funds, the BCTA has completed the market research and planning for a **multimodal Mobility Manager system**. The Mobility Manager is intended to not only provide information to users of the various fixed-route, paratransit, taxi, and other shared ride services available in the county, but will coordinate the scheduling and routing of vehicles to provide more efficient transportation services. STP funds are programmed through 1998 for ITS technologies such as advanced communications equipment and automatic vehicle location systems; ultimately, travelers will be able to get real time information on transit and traffic conditions, incidents, and weather.

Through its Mobility Manager system, the BCTA is beginning to see itself as a manager of services, rather than simply as a provider. STP funds are helping the Authority reinvent itself to utilize emerging technologies and deliver more efficient convenient and innovative public transportation services.

**Multimodal Funds at Work**

Commuter and heavy rail operations, express and local bus service, and the regional highway system provide Dade County, Florida, residents with several modal options for travel. The Dade County MPO, however, found that the efficiency of the overall **multimodal** transportation system is limited in some areas by 1) poor connectivity between modes; 2) increasingly congested roadway conditions; and 3) lack of integration of land use and surface transportation planning. A 1992 study to improve intermodal connections to the Miami International Airport and major employment centers identified an intermodal center, linking the airport with intracity, commuter, and future high-speed regional rail, bus and ferry service, and planned highway expansion (including the region's East/West Multimodal Corridor), as a means to address these multiple issues. The ultimate intent of the Miami **Intermodal Center (MIC) is** to improve access to the airport, foster appropriate development in the surrounding area, and make the transfer of passengers between transit, highway and air modes as safe, efficient, and "seamless" as possible.

The delivery of Federal dollars to support multimodal projects should be just as seamless. FHWA, through the Florida Department of Transportation, has administered nearly \$16 million in CMAQ funds for project planning, preliminary engineering, and environmental work for the MIC. FTA has also served in an advisory capacity. \$700 million in Federal, State, and other resources are programmed in the region's TIP for project construction. The MIC demonstrates not only a cooperative Federal-State-local and highway+transit-air partnership to project planning, but the flexibility of CMAQ program funds: despite the significant transit components to the project, no transfer of funds to PTA was necessary.



**Investments in transportation facilities should incorporate both community and regional needs and be seen within the context of surrounding economic development. The following two examples demonstrate how two communities have tied transportation, land use, and economic development planning into a comprehensive strategy for revitalizing urban neighborhoods.**

#### **A Tale of Two Terminals**

The Rensselaer Amtrak station, located just across the Hudson River from downtown Albany, New York, serves as the region's major terminal of downtown-oriented rail trips. The facility, however, suffers from long overdue maintenance work and inadequate access by private vehicle. Meanwhile, the area surrounding the terminal has declined over the past several years, and no master plan has existed to guide its redevelopment.

Planners in the Capital District recognized the importance of the Rensselaer station as both an important link for regional travel and as a possible centerpiece for economic development in the Rensselaer community. In early 1994, using both CMAQ funds and city-generated revenues, the Capital District Transportation Authority (CDTA) commissioned a development study for the area surrounding the station. While the CDTA administered the study, an advisory committee, comprised of city, county, and State officials, as well as representatives from Amtrak, local businesses, and rail commuters, provided policy direction to the study. Four committee meetings were open to the public to provide for their input. A final report, which includes both a station development plan and a plan for development in the neighborhood around the station, was completed in October, 1995.

As directed from this report, rehabilitation of the Rensselaer Intermodal Station and neighborhood revitalization efforts will encompass several elements of the community and are being sought from a variety of financial sources. FTA capital transit funds, matched with state transit and rail resources, will provide several passenger amenities to the station and improve access to it by bus and automobile; meanwhile, FHWA funds may be used to bridge improvements which will enhance access between Rensselaer and downtown Albany. Concurrently, the city of Rensselaer is using \$250,000 in community development funds for infrastructure improvements in the residential neighborhood around the station; the county's Industrial Development Agency is financing a hotel feasibility study on the site; and the city is financing plans for a new City Hall near the station.

By cooperating with local development agencies and the region's MPO, CDTA will be part of a partnership that will leverage a variety of state, local and federal transportation

and urban development funds for much needed improvements. The result is more than just an intermodal terminal; it's an investment in the rebuilding of a valued community.

The city of Worcester, MA is also focusing on the rehabilitation of its historic Union Station as a major component of its economic development plans. Once one of the great architectural treasures of New England, Union Station has been abandoned since 1979, victimized by vandalism, and threatened with demolition. Yet the station --- which is located near downtown Worcester and Interstate 290 and is built on two rail lines --- has the potential for playing a major role in facilitating passenger travel both locally and throughout the region.

Using CMAQ funds, the Worcester Regional Transit Authority (WRTA) and the city's Redevelopment Authority have studied the transportation, air quality, and economic development impacts of a renovated, operational Union Station. Public input was solicited regarding various renovation alternatives, and a Union Station Committee, consisting of various transportation business, community, and preservation interests, was created to guide the study. Based on the results of the study and public comment, the WRTA concluded that a feasible restoration of the Station could maintain the architectural character of the facility while at the same time be expanded to serve local, express, and innercity bus service, airport shuttle and taxi service, a parking garage, Amtrak, and the Massachusetts Bay Transportation Authority's commuter rail extension. The Station would accommodate bicycle and pedestrian traffic to downtown, and will provide space for commercial activities and a visitor center highlighting the Blackstone River Valley. The total project cost is estimated at \$35 million and is proposed to be funded under a combination of CMAQ and Urbanized Area Formula funds.

Worcester's Intermodal Union Station will make traveling by all modes more convenient, will improve the area's air quality, and will serve as a conduit to future development around the facility. As with the Rensselaer Intermodal Station, Union Station is seen by the community as not only an important regional transportation asset but as a catalyst to the revitalization of downtown Worcester.

US 301 South Corridor MIS

The 50-mile US 301 Corridor stretches from US Route 50 in Bowie, Maryland south to the Potomac River. US 301 was originally built as a bypass of Washington, D.C. As the Washington area spread eastward, however, commercial and residential development occurred along the highway, leading to a congested mix of local and through traffic on much of the corridor. A proposal for a new, limited access Outer Beltway to divert through traffic was met with substantial public opposition.

Subsequently, an MIS has been undertaken by the Maryland Department of Transportation, in cooperation with local transportation agencies, to address the US 301 corridor's existing and future transportation problem. The study includes a broad set of highway, transit, and policy options, including:

- \* a six-lane fully controlled access highway with the existing traffic lights replaced with a minimum number of interchanges;
- \* a light rail line along US 301 and MD 5 connecting to a future Metrorail Station at Branch Avenue;
- \* commuter rail on existing tracks that parallel US 301;
- \* HOV lanes on US 301, MD 5, and MD 205;
- increased local and express bus service;
- \* park and ride lots; transit centers; and land use changes.

The MIS process is being used to generate and evaluate alternative strategy packages which include combinations of these facilities and policies. This process may set the stage for the selection of a multimodal package of improvements as the preferred investment strategy. These strategies are being explored with the public through an extensive outreach program, including a 10-member citizen task force.

**ISTEA's major investment study (MIS) requirement provides the transportation planning partnership with a mechanism for evaluating a broad range of multimodal facility and policy options for solving transportation problems. Flexible funds can be used to fund both the MIS and most of the alternatives identified and analyzed by the study.**

**Denver's Coordinated MIS Process**

In the Denver metropolitan area, three agencies collaborate in the regional transportation planning process: the Regional Transportation District (RTD), the Colorado Department of Transportation (CDOT), and the Denver Regional Council of Governments (DRCOG). Construction of a new international airport, rapid growth throughout the region, and increasing congestion and concern for the area's air quality requires that these agencies take a collaborative regional approach to transportation problem-solving.

The agencies have collectively identified three major transportation corridors as candidates for a major investment study. To facilitate the required analyses, a coordinated MIS process is being utilized to prioritize activities among the three corridors, as well as within each corridor. Each corridor is managed by a different transportation agency, but an MIS Coordination Committee, comprised of representatives from the RTD, CDOT, and DRCOG, as well as the consultant teams involved in the studies, has been established to facilitate consistency among the three corridors. One intent of the coordination Committee is to develop a Guidance Manual to establish common procedures for evaluating alternatives for each MIS. DRCOG and RTD are further cooperating to provide joint traffic and patronage forecasts for all three studies.

The overall goal of this cooperation is to ensure consistent and credible information to help decisionmakers select a priority corridor for investment. A cooperative approach to conducting an MIS also helps fit future corridor improvements to the region's long range transportation and air quality improvement plans, ensures that these improvements can be achieved with identified funds, and provides a consistent vision for the future of the Denver metropolitan area.

# Appendices

## Appendix I

### Transportation Control Measures (TCMs)

#### Clean Air Act Amendments of 1990

#### Section 108(b)(1)(A)

- (i) programs for improved public transit;
- (ii) restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;
- (iii) employer-based transportation management plans, including incentives;
- (iv) trip reduction ordinances;
- (v) traffic flow improvement programs that achieve emission reductions;
- (vi) fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit service;
- (vii) programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use;
- (viii) programs for the provision of all forms of high-occupancy, shared-ride services;
- (ix) programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;
- (x) programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists. in both public and private areas;
- (xi) programs to control extended idling of vehicles;
- (xii) programs to reduce motor vehicle emissions, consistent with Title II, which are caused by extreme cold start conditions;
- (xiii) employer-sponsored programs to permit flexible work schedules;
- (xiv) programs and ordinances to facilitate non-automobile travel. provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel. as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;
- (xv) programs for new construction and major reconstruction of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest. For purposes of this clause, the Administrator shall also consult with the Secretary of the Interior; and
- (xvi) program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks.

**Appendix II**

**Designated Ozone and Carbon Monoxide  
Nonattainment Areas**

**Classified Ozone Nonattainment Areas**

as of February 14,1996

Dates in parenthesis are when ozone standards must be met

**Extreme (2010)**

Los Angeles-South Coast Air Basin, CA

**Severe (2007)**

Chicago-Gary-Lake County, IL-IN  
Houston-Galveston-Brazoria, TX  
Milwaukee-Racine

New York-N. New Jersey-Long Isle, NY-NJ-CT  
Southeast Desert Modified AQMA, CA

**Severe (2005)**

Baltimore, MD  
Philadelphia-Wilmington-Trenton, PA-NJ-DE-MD

Sacramento Metro, CA  
Ventura County, CA

**Serious (1999)**

Atlanta, GA  
Baton Rouge, LA  
Beaumont-Port Arthur, TX  
Boston-Lawrence-Worcester, MA-NH  
El Paso, TX  
Greater Connecticut

Portsmouth-Dover-Rochester, NH  
Providence, RI  
San Diego, CA  
San Joaquin Valley, CA  
Springfield, MA  
Washington, DC-MD-VA

**Moderate (1996)**

Atlantic City, NJ  
Cincinnati-Hamilton, OH-KY  
Cleveland-Akron-Lorain, OH  
Dallas-Fort Worth, TX  
Grand Rapids, MI  
Kewaunee County, WI  
Knox and Lincoln Counties, ME  
Lewiston-Ashburn, ME  
Louisville, KY-IN  
Manitowoc county, WI  
Monterey Bay, CA  
Muskegon, MI

Nashville, TN  
Phoenix, AZ  
Pittsburgh-Beaver Valley, PA  
Portland, ME  
Poughkeepsie, NY  
Reading, PA  
Richmond, VA  
Salt Lake City, UT  
Santa Barbara-Santa Maria-Lompoc, CA  
Sheboygan, WI  
St. Louis, MO-IL,

**Marginal (1993)**

Albany-Schnectady-Troy, NY  
Allentown-Bethlehem&&on, PA-NJ  
Altoona, PA  
Birmingham,AL  
Buffalo-Niagara Falls, NY  
Canton, OH  
Columbus, OH  
Door County, WI  
Erie, PA  
Essex County, NY  
Evansville, IN  
Hancock and Waldo Counties, ME  
Harrisburg-Lebanon-Carlisle, PA  
Jefferson County, NY  
Johnstown, PA  
Kent and Queen Anne's Counties. MD

Lake Charles, LA  
Lancaster, PA  
Manchester, NH  
Norfolk-Virginia Beach-Newp. News, VA  
Portland-Vancouver, OR-WA  
Reno, NV  
Scranton-Wilkes Barre, PA  
Seattle-Tacoma, WA  
Smyth County, DE  
Sunland Park, NM  
Sussex County, DE  
walworth county, WI  
York, PA  
Youngstown-Warren-Sharon, OH-PA

**Appendix II (continued)**

**Classified Carbon Monoxide Nonattainment Areas**

**Serious**

Los Angeles South Coast Air Basin

**Moderate > 12.7 ppm**

Anchorage, AK  
Denver-Boulder, CO  
Fresno, CA  
Las Vegas, NV

New York-N. New Jer-Long Isle, NY-NJ-CT  
Provo, UT  
Seattle-Tacoma, WA  
Spokane, WA

**Moderate <=12.7 ppm**

Albuquerque, NM  
Baltimore, MD  
Boston, MA  
Chico, CA  
Colorado Springs, CO  
El Paso, TX  
Fairbanks, AK  
Fort Collins, CO  
Grants Pass, OR  
Hartford-New Britain-Middletown, CT  
Klamath Falls, OR  
Lake Tahoe South Shore, CA  
Longmont, CO  
Medford, OR  
Duluth, MN  
Cleveland, OH  
Memphis, TN

Minneapolis, MN  
Missoula, MT  
Modesto, CA  
Ogden, UT  
Philadelphia-Camden County, PA-NJ  
Phoenix, AZ  
Portland-Vancouver, OR-WA  
Raleigh-Durham, NC  
Reno, NV  
Sacramento, CA  
San Francisco-Oakland-San Jose, CA  
San Diego, CA  
Stockton, CA  
Washington, DC-MD-VA  
Winston-Salem, NC  
Syracuse, NY