

I. INTRODUCTION

Federal transportation planning regulations require that this document, the Regional Transportation Plan, serve as the foundation of the transportation planning process in each MPO. The Plan serves a number of important purposes within this role. First, the Plan must document and evaluate the overall status and performance of the existing regional transportation system. This evaluation must consider all the major modes of transportation available in the region including highways, mass transit, freight, rail, bicycle, pedestrian, air transportation, and port facilities. Even more importantly, this evaluation must also consider how these individual modes either do or should combine to provide the best-coordinated or *intermodal* transportation system available. This emphasis on developing an intermodal transportation network was deemed so important by Congress in 1991 that the legislation was titled the Intermodal Surface Transportation Efficiency Act. It is also important to note that the evaluation of the regional transportation system must consider how that system affects the region's other important resources such as its economic base, environmentally sensitive areas, cultural and historic heritage, and social fabric. The importance of this document in the transportation planning process has been reaffirmed and expanded in the federal transportation authorization bills passed since ISTEA, the Transportation Efficiency Act for the 21st Century (TEA-21), and the current act, the Safe Accountable Flexible Efficient Transportation Act - a Legacy for Users (SAFETEA-LU).

Evaluation of the region's existing transportation system is accomplished in a number of ways. Traffic volume data measures demand on the region's roadways. Traffic studies also provide us with valuable information on the transportation system such as Level of Service Analyses, which provide a measure of congestion for specific roadways and intersections. Crash data provided by the MassHighway Department allows us to identify where safety problems exist. The region's Congestion Management System (CMS) uses traffic volume and roadway capacity information to identify congested areas. Ridership and boarding data obtained from the MVRTA, MBTA and local transit operators allow us to monitor usage of the region's transit services.

Federal transportation planning regulations also require that an MPO's Transportation Plan must consider what the likely transportation needs of the region will be for the next 20 years. For the purpose of this 2007 Plan update, federal, state and regional transportation officials in Massachusetts have agreed to utilize a future horizon year of 2030. Although 23 years in the future, this year was selected to provide additional in time ensure that, when the document is next updated, it would not continue to meet the Clean Air Act requirement that it address a 20-year planning horizon.

Forecasting the region's future transportation needs is primarily accomplished by forecasting how key factors that influence the demand for transportation both within and outside the region will change in a given time period. The most important of these factors are population, household size, employment, auto availability, and income. As these factors change, both within and outside of a region, trip-making patterns and overall demand for transportation will change over that time period. The Merrimack Valley MPO uses a regional travel forecasting model to develop these estimates of future travel demand, using the data described above as inputs.

Once the region's existing transportation system has been evaluated and its future transportation demands have been estimated, the Plan must identify what actions are necessary to correct any of the existing deficiencies on the system and to address any of the projected problem areas that were identified earlier in the Plan. These may include recommendations to conduct transportation studies along congested corridors or to implement projects or services that have already entered the project development process. These identified actions should also include an estimate of when they are to be implemented and how much it will cost to complete them.

In developing the list of programs, projects and actions to be included in the Plan, the MPO must be cognizant of two critically important considerations. First, the Plan must be a financially constrained document, which means that each project or program appearing in the document must include an identified source of funding that, will be of sufficient magnitude to allow completion of the project in the year programmed. There must also be a reasonable expectation that this funding will in fact be available at that time.

Second, the Clean Air Act Amendments of 1990 and TEA-21 require that the transportation plans developed in areas that do not meet federal air quality standards must consider the Transportation Control Measures (TCMs) contained in the State Implementation Plan (SIP). The Merrimack Valley region, like the rest of Massachusetts and Southern New Hampshire has been classified by the Environmental Protection Agency (EPA) as being in violation of the federal ozone standard and must therefore meet this requirement.

By accomplishing these steps, the members of the MPO, which includes local officials, state and regional transportation officials, work with local citizens and groups to create a document that outlines the region's transportation planning priorities.

History

Passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 marked an important change in the way that the federal government approached the planning, programming, and construction of federal-aid transportation projects. ISTEA was the first post-interstate transportation legislation passed by the Congress and it redirected the federal funding emphasis from completing the interstate highway system and expanding highway capacity to promoting intermodal solutions to transportation problems and maximizing the efficiency of our existing transportation network.

The new, redirected focus of the federal transportation legislation brought with it the need to redirect and broaden the planning and programming process that must support it. Consequently, the planning regulations that were developed by the USDOT to support ISTEA contained provisions that strengthened the role that public officials would have in the planning and programming of the transportation projects. This was largely accomplished through the strengthening of the Metropolitan Planning Organizations (MPOs), which had been established in the early 1970s to support the planning and programming of transportation projects in urbanized areas. Local officials serving on the larger of these MPOs, specifically those whose urbanized areas contained more than 200,000 residents and referred to in the legislation as Transportation Management Areas (TMAs), were given greater responsibility in selecting projects for implementation. In addition to the greater responsibilities given to the

larger MPOs, USDOT required that all MPO's examine a number of key planning factors in preparing their transportation plans and programs that were required under this process.

The Transportation Equity Act for the 21st Century (TEA-21) was the successor federal transportation funding legislation to ISTEA. Enacted in 1998, it retained and reinforced virtually all the programs and planning requirements that were enacted under ISTEA. TEA-21 provided federal transportation funding for roadways and transit for federal fiscal years 1999 through 2004. This legislation was replaced by the SAFETEA-LU in 2005, which will provide funding for through FY 2009. Shortly before that Act expires, the congress will work on developing a new federal transportation authorization bill that likely will be in effect from 2010 to 2014 or 2015.

Merrimack Valley Metropolitan Planning Organization

The Merrimack Valley Metropolitan Planning Organization was first created by the Governor of Massachusetts in 1972. Under federal transportation legislation, MPOs are assigned the important task of completing the planning and programming of all federally funded transportation projects and programs in their respective urbanized area.

The Merrimack Valley MPO covers the same 15-community geographic area that defines the Merrimack Valley Planning Commission and the Merrimack Valley Regional Transit Authority. From its creation in 1972 until 1999, the Merrimack Valley MPO was comprised of four member agencies:

- ❖ Secretary of the Massachusetts Executive Office of Transportation and Construction
- ❖ Commissioner of Massachusetts Highway Department
- ❖ Chairman of the Merrimack Valley Planning Commission
- ❖ Chairman of the Merrimack Valley Regional Transit Authority Advisory Board

In 2000, membership of the Merrimack Valley MPO was expanded to provide the type of community representation on the MPOs envisioned in ISTEA and TEA-21. In addition to the four agencies identified above, the following six local representatives were added to the MPO. The new membership structure of the Merrimack Valley MPO is shown below:

- Mayor of Lawrence (or his/her designee); Permanent Member
- Mayor of Haverhill (or his/her designee); Permanent Member
- Two chief officials (or their designee) from the Urban Communities of Amesbury, Andover, Methuen, Newburyport, and North Andover
- Two chief officials (or their designee) from the Non Urban Communities of Boxford, Georgetown, Groveland, Merrimac, Newbury, Rowley, Salisbury, and West Newbury

This new membership structure was established in a Memorandum of Understanding that was also endorsed by the Merrimack Valley MPO in January 2000. This document identifies the member agencies of the MPO and describes their roles and responsibilities within the Organization.

Transportation Planning Requirements Under SAFETEA-LU

ISTEA established 16 factors that MPO's were required to consider in developing the plans and programs mandated under the legislation. TEA-21 consolidated these 16 planning factors into seven broad areas, which were slightly altered with the passage of SAFETEA-LU. Transportation security is now a stand alone factor, signaling an increase in importance from what was shown in TEA-21 and the factor relating to the environment has expanded to promote consistency of the long-range transportation plan with planned growth and development. The new planning factors are shown below:

1. Support the economic vitality of the United States, the States, nonmetropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for motorized and nonmotorized users;
3. Increase the security of the transportation system for motorized and nonmotorized users;
4. Increase the accessibility and mobility of people and for freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;
7. Promote efficient system management and operation; and
8. Emphasize the preservation of the existing transportation system.

As the transportation staff for the Merrimack Valley MPO, the Merrimack Valley Planning Commission is largely responsible for address these eight planning factors through the planning tasks and studies identified in the region's Unified Planning Work Program. However, there are other policies, plans and programs at the regional and state levels that address these factors and are considered as part of transportation planning process in the region.

Massachusetts "Fix it First" and "Communities First" Policies

In 2003, the Governor initiated the **Commonwealth of Massachusetts Statewide Road and Bridge Policy**, which contained the **Fix it First** and **Communities First** initiatives. This policy was developed to provide guidance to the communities and to the MassHighway Department in implementing projects that preserve our existing transportation infrastructure while at the same time maintaining the Commonwealth's unique character.

The stated intent of the **Fix It First** component of this new statewide road and bridge policy is "to give priority to the repair of existing streets, roads and bridges". The **Communities First** policy states:

Wherever a street, road or bridge needs to be redesigned and reconstructed, to plan and undertake, in collaboration with the affected community, a "context-sensitive"

project – one that fully protects and enhances the surrounding community and landscape while addressing mobility for all transportation modes.

Both policies were established to help prevent sprawl, make the road and bridge program more responsive to public needs and desires, avoid the costs of unnecessary road widenings, and to enhance opportunities for sustainable transportation modes such as walking and bicycling. To further support these initiatives, the Executive Office for Commonwealth Development and the Secretary of the Executive Office of Transportation undertook the following actions:

- Revision of the Highway Design Manual to incorporate the principles of context-sensitive design, traffic calming and multi-modal accommodation;
- Expedite the implementation of projects with community-friendly designs;
- Develop a plan for repairing or rebuilding the state’s structurally deficient bridges

Revised Massachusetts Highway Department Design Manual

The Revised Highway Design Manual for the Commonwealth was completed in 2006. In keeping with the intent of the Fix it First and Communities First policies, the new manual provides much greater flexibility in designing roadway, bridge, and bicycle/pedestrian projects. The manual also establishes a much more inclusive transportation project initiation and review process. Opportunities for public input on transportation projects are now provided very early in the project development process at a time when the concerns of citizens, local officials and other groups can more effectively be incorporated into project design. A number of transportation projects in the Merrimack Valley region have been initiated under the project development process outlined in the manual. These include proposals for a new Park and Ride lot in Georgetown, expansion of the Newburyport Park and Ride Lot, and for improvements to the Elliott Street / Route 110 intersection in Haverhill. **Comprehensive Economic Development Strategy for the Merrimack Valley (CEDS).**

The Merrimack Valley Comprehensive Economic Development Strategy (CEDS) is a document that assesses the region's economic needs and prescribes a program to strengthen its economic base. It is intended to serve as a resource for elected officials, economic development planners, and private industry groups, among others.

A Comprehensive Economic Development Strategy establishes “a process that will help create jobs, foster more stable and diversified economies, and improve living conditions.¹” It does so by promoting economic development and opportunity, fostering effective transportation access, enhancing and protecting the environment, and balancing resources through sound management of development.

The analysis contained in the 2006 Merrimack Valley CEDS assesses the “regional economy's strengths and weaknesses, and the opportunities and threats posed by external trends and forces, as well as the availability of partners and resources for economic development. The

¹ 2006 Merrimack Valley CEDS; Page 1

community's vision and goals, together with an appraisal of the region's competitive advantage, sets the strategic direction for the action plan. The action plan presents priority programs and projects for implementation. Finally, the CEDS describes the process for evaluation and periodic update.”²

Four key goals are identified in the Merrimack Valley CEDS:

1. Develop a strong, diversified and sustained regional economy;
2. Create a balance between development and environmental interests
3. Improve transportation and communication systems;
4. Provide opportunity for economic advancement for low-income populations.

A series of objectives were developed to guide local and regional officials in attaining each of these goals. The CEDS also includes a summary of the important economic development issues in each of the region’s communities. Many of these issues were identified in the Community Development Plans that were completed for the 12 Valley communities that participated in the Executive Order 418 program.

Sustainable Development

Sustainable Development, also referred to as “Smart Growth”, is an approach to land development that emphasizes focusing growth “in and around central business districts or traditional city or town centers, near transit stations, or in areas that have been previously developed for commercial, industrial or institutional uses”³. In this way, development would be focused in areas already served by utilities and public infrastructure and would facilitate pedestrian and other forms of non-motorized transportation.

The Massachusetts Office for Commonwealth Development has identified the following 10 principles to guide future development in the state, which are shown below. These Sustainable Development Principles are a direct extension of the Fix it First and Communities First policy goals of preventing sprawl that were noted above. It has also established **Commonwealth Capital Fund** that is used to coordinate state capital spending in programs that affect development to ensure that the Commonwealth’s investments promote projects consistent with Sustainable Development.

1. REDEVELOP FIRST. Support the revitalization of community centers and neighborhoods. Encourage reuse and rehabilitation of existing infrastructure rather than the construction of new infrastructure in undeveloped areas. Give preference to redevelopment of brownfields, preservation and reuse of historic structures and rehabilitation of existing housing and schools.

2. CONCENTRATE DEVELOPMENT. Support development that is compact, conserves land, integrates uses, and fosters a sense of place. Create walkable districts mixing commercial, civic, cultural, educational and recreational activities with open space and housing for diverse communities.

3. BE FAIR. Promote equitable sharing of the benefits and burdens of development. Provide technical and strategic support for inclusive community planning to ensure social, economic, and environmental justice. Make regulatory and permitting processes for development clear, transparent, cost-effective, and oriented to encourage smart growth and regional equity.

² 2006 Merrimack Valley CEDS; Page 1

³ Office for Commonwealth Development website.

<p>4. RESTORE AND ENHANCE THE ENVIRONMENT. Expand land and water conservation. Protect and restore environmentally sensitive lands, natural resources, wildlife habitats, and cultural and historic landscapes. Increase the quantity, quality and accessibility of open space. Preserve critical habitat and biodiversity. Promote developments that respect and enhance the state's natural resources.</p>
<p>5. CONSERVE NATURAL RESOURCES. Increase our supply of renewable energy and reduce waste of water, energy and materials. Lead by example and support conservation strategies, clean power and innovative industries. Construct and promote buildings and infrastructure that use land, energy, water and materials efficiently.</p>
<p>6. EXPAND HOUSING OPPORTUNITIES. Support the construction and rehabilitation of housing to meet the needs of people of all abilities, income levels and household types. Coordinate the provision of housing with the location of jobs, transit and services. Foster the development of housing, particularly multifamily, that is compatible with a community's character and vision.</p>
<p>7. PROVIDE TRANSPORTATION CHOICE. Increase access to transportation options, in all communities, including land-and water-based public transit, bicycling, and walking. Invest strategically in transportation infrastructure to encourage smart growth. Locate new development where a variety of transportation modes can be made available.</p>
<p>8. INCREASE JOB OPPORTUNITIES. Attract businesses with good jobs to locations near housing, infrastructure, water, and transportation options. Expand access to educational and entrepreneurial opportunities. Support the growth of new and existing local businesses.</p>
<p>9. FOSTER SUSTAINABLE BUSINESSES. Strengthen sustainable natural resource-based businesses, including agriculture, forestry and fisheries. Strengthen sustainable businesses. Support economic development in industry clusters consistent with regional and local character. Maintain reliable and affordable energy sources and reduce dependence on imported fossil fuels.</p>
<p>10. PLAN REGIONALLY. Support the development and implementation of local and regional plans that have broad public support and are consistent with these principles. Foster development projects, land and water conservation, transportation and housing that have a regional or multi-community benefit. Consider the long-term costs and benefits to the larger Commonwealth.</p>

State Transportation Plan

Late in 2006, the Executive Office of Transportation adopted the *Commonwealth of Massachusetts Long Range Transportation Plan*. It establishes seven guiding principles for the future development of the state transportation network over the next 20 years, which are listed below. These principles largely reflect the application of the state's Sustainable Growth Principles to transportation. The Long Range Plan states that the network:

1. *Represents an irreplaceable asset that must be preserved and improved by allocating sufficient resources in the most effective manner.*
2. *Shall be responsive to the changing needs of its customers, both passengers and freight shippers, and shall take into account the needs of all constituents, regardless of personal physical limitations or economic status.*
3. *Shall satisfy the mobility needs of people and freight through a comprehensive set of strategies that focuses on system management and demand management, as well as targeted investments in system improvement.*
4. *Shall foster a sustainable society, in which economic growth and environmental protection work in tandem, quality of life is enhanced, and the historic and scenic values that attract visitors to the Commonwealth are maintained.*
5. *Shall be safe for both users and nonusers. A four-pronged approach of safety oriented engineering, enforcement, public education and emergency medical*

services will ensure that safety is considered in all aspects of planning, design, construction and operation.

- 6. Shall be secure, with all modes and users protected against external threats.*
- 7. Shall be planned and managed within an efficient and cost-effective organizational structure, and transportation investment decisions shall be the result of an objective, coordinated, transparent, and inclusive decision-making process.*

Action Plans are defined for the application of each of the guiding principles to the management of the transportation network. The Plan also addresses the near-term transportation funding needs of the state and identifies three major transportation projects for each MPO. In the Merrimack Valley region, the three major infrastructure projects are the South Main Street reconstruction project in Haverhill, renovations to the Washington Square Transit Station in Haverhill, and improvements to the Route 110/113 Rotary in Methuen.

Merrimack Valley Regional Transportation Plan

Each MPO in the Commonwealth is required to have an endorsed transportation plan in place and must comprehensively update this document every three years, at a minimum. The MVMPO's Regional Transportation Plan was last updated in a comprehensive fashion in 2003. The Regional Transportation Plan is designed to identify the long-term problems that will confront the region's transportation system. It includes the land use, socioeconomic, environmental and other considerations that largely shape transportation demand and the transportation network. The Regional Transportation Plan also recommends either possible solutions to the identified problems/needs or a definition of what types of further analysis must be undertaken to determine the most appropriate solution. Projects or identified problem areas must first be outlined in the Regional Transportation Plan before projects can be programmed in the Transportation Improvement Program (TIP). And, like the TIP, it must be demonstrated that the implementation of all projects appearing in the Transportation Plan will contribute to a cumulative reduction of regional emissions and thereby show progress in meeting all federal air quality standards.

A primary goal of this plan, and arguably *the* primary goal of the plan is to give local officials and citizens the best information available to make decisions concerning the selection and implementation of transportation projects in the Valley and to do so while also considering the federal and state requirements governing the planning and development of these projects.

In the next section, the Merrimack Valley Metropolitan Planning Organization's Goals and Objectives are shown. They support and in turn are supported by the transportation factors, goals and principles established by federal, state, and regional agencies. They also build upon the transportation needs and concerns of citizens and officials from our cities and towns.