

# Transportation Element

The Central Vermont Regional Planning Commission also adopted the Central Vermont Regional Transportation Plan in its entirety. That Plan addresses all the requirements of State statute and is adopted, by reference, as part of this document. The following is an overview of the Regional Transportation Plan and its major goals and policies. The complete text is available upon request

## EXECUTIVE SUMMARY

The 2008 Regional Transportation Plan (RTP) was completed by staff with technical support from a consultant under the direction of the CVRPC Transportation Advisory Committee. Preparation of the 2008 RTP occurred simultaneously with the update of the CVRPC Regional Plan. The 2008 RTP has a planning horizon and is based on the same land use assumptions and economic and demographic forecasts used in the Regional Plan.

The 2008 RTP is organized into five chapters and an appendix. Chapter One presents an overview of the Plan's purpose and process. Chapter Two presents the transportation goals developed specifically for the Regional Transportation Plan. Chapter Three contains descriptive material on the Region's land use patterns, on current and forecast population and employment in the Region, and on current work trip travel patterns in the Region. Chapter Four describes the existing transportation system, its performance, and projected future performance of the highway system. Chapter Five presents Regional, and corridor level recommendations. The Appendix examines ways existing and future transportation and land use planning can be better coordinated, project prioritization methodology, and detailed safety, bridge, and survey analysis.

The 2008 RTP is too large to present in the Regional Plan. This section presents the 2008 RTP's vision statement and goals, summarizes the key findings on transportation demand and system performance, and briefly describes the types of recommendations included in the RTP. Refer to the 2008 Central Vermont Regional Transportation Plan for more detailed information.

## DISCUSSION: TRENDS

### Demographic and Land Use Trends Affecting Transportation Demand

If current settlement trends continue, households will disperse throughout the Central Vermont Region while employment and services concentrate in a growing cen-

tral core consisting of Montpelier, Barre City, Barre Town, and Berlin. Smaller concentrations of employment are anticipated in the Waterbury, Waitsfield/Warren, and Northfield areas.

Driving alone to work is the dominant mode choice for Central Vermont workers and will likely continue to dominate as households disperse and employment concentrates within a few areas of the Region. Ride-share also plays a significant role in the journey to work and will remain a viable option as households continue to disperse and workers are imported from outside of the Region. Driving alone and ride-share account for 87% of the work trips in the Central Vermont Region. According to Vermont Public Service, road transportation accounts for 95% of transportation energy use.<sup>1</sup>

Walking has a significant mode share in Montpelier and Northfield and is also an important mode for non-work trips in those communities.

Similar to national trends, the largest growing age cohort will be people over the age of 65. This age group will continue to fill jobs as noted above, and may also have special transportation needs. (See map: Transportation.)

### **Transportation System Performance**

Highways: During the 2000's bridge conditions improved, but pavement conditions have declined. Congestion was limited to the Barre, Berlin, Montpelier, and Waterbury areas of the Region. Maintaining the condition of roads and bridges in the future will require sustained levels of funding for system preservation projects. Assuming no changes to the highway system, congestion is projected to spread to the rural areas of the Region.

Safety: Intersections are the most dangerous components of the Region's highway system. The intersections and road segments with the highest crash rates are located in the Barre City, Barre Town, Fayston and Northfield areas. Out of the twelve intersection high crash locations, seven have been studied, and four are included in projects. The Region will continue to conduct planning studies, and participate in State programs to address high crash locations.

Transit: Transit ridership increased significantly over the years due to expansion of service. Since 1995, ridership grew by 46%. The most notable recent addition was the Link Express service between Montpelier, Waterbury, and Burlington. A recent statewide assessment of all Vermont public transit providers found that Central Vermont's transit system had mostly positive use and cost performance measures for

<sup>1</sup> Vermont. Department of Public Service. Utility Facts. October, 2006.

its various routes. The increases in transit ridership underscore the desirability of continued transit service in the Region.

Transportation Demand Management: Transportation Demand Management (TDM) seeks to reduce the number of single occupant vehicle trips by encouraging people to share rides, shift travel to off-peak hours, tele-commute or use other modes such as walking, biking, or transit. Most of the ride-sharing in the Central Vermont Region occurs on an informal basis. The Park & Ride lots in the Region facilitate informal ride-sharing and have experienced a 79% increase in use since 1998. In the future, transportation demand management associations could help facilitate further use of TDM programs.

Bicycle & Pedestrian: There are a variety of bicycle and pedestrian facilities in the Central Vermont Region including sidewalks and cross walks in most cities and villages, paved shoulders in rural areas, and separated bike paths in various locations. Existing deficiencies include discontinuity of adequate shoulder widths in rural areas, constant need for maintenance of existing urban/village sidewalk networks, and a lack of sidewalks in the growing suburban commercial areas. Since 1995, there has been significant progress in planning and implementing bicycle and pedestrian facilities at the local and Regional level. This incremental progress, if continued over the next twenty years, will help the Region develop an interconnected network of bike and pedestrian facilities.

Freight Movement: The important products transported from the Region are specialty and dairy food products, granite, and wood. Most of these commodities are shipped by truck, with rail transporting a much smaller but significant share (7% statewide). Truck travel in the Region is constrained by highway geometry deficiencies and the hilly terrain. Arterials that carry truck traffic also pass through village centers creating safety and quality of life issues for residents. Rail plays an important role in the Region's trade with Canada. Preventive maintenance is needed to preserve the existing New England Central rail line that serves that international trade connection.



Edward F. Knapp State Airport, Berlin, Vermont.

Air Transportation: There are two airports located in the Central Vermont Region; the Edward F. Knapp State Airport in Berlin, and the privately owned Warren- Sugarbush Airport. The Region's public-use airports provide opportunities for public access to the National Airspace System, air

freight, emergency medical services, search and rescue operations, business aviation, recreational flying, and flight training. Knapp Airport is equipped for night operations and precision instrument landings. Since 1996, improvements at Knapp Airport have included runway rehabilitation, installation of navigational aids, and construction of jet fuel farm, hangars, and a taxiway. Future improvements have been identified that will preserve and enhance how the Airport functions.

## REGIONAL TRANSPORTATION PLAN RECOMMENDATIONS

Specific project, program, and policy recommendations are presented on the Regional and corridor levels to address the issues identified in the performance assessment and during public meetings held in the Central Vermont Region. The recommendations also address the need for Regional planning and cooperation on transportation issues, transportation funding, and mitigation of development impacts to the transportation system, and the project development process. The Regional Transportation Plan also recommends ways to improve the transportation-land use connection based on ideas developed during a public workshop, and includes suggested changes to CVRPC policies for defining the Regional significance of transportation projects and how transportation should be considered in growth area planning.

### **Vision and Mission for Transportation in the Region**

To emphasize the scope and scale of the Regional transportation issues facing Central Vermont and its communities, CVRPC established a vision and mission statement to guide the development of transportation goals, policies, and action items.

Vision - "To maintain and develop a transportation system that facilitates travel while preserving the Region's character."

Mission - "Preserve, enhance, and develop an integrated, multi modal Regional transportation system to accommodate the need for movement of people and commerce in a safe, cost-effective, environmentally responsible, and equitable manner, that conforms with other elements of the Regional Plan."

The vision and mission statements provide an overall direction that CVRPC believes should be followed. To guide these steps, CVRPC established a series of nine goals that further define this direction. These goals are described below, as well as the policies written to provide guidance of how the goals can be achieved.

## TRANSPORTATION GOALS AND POLICES

### **GOAL 1:**

To achieve a Regional transportation planning process that is comprehensive, multi-modal, and public, and is integrated with Regional and local land use planning as outlined in the Central Vermont Regional Plan.

### **Policies:**

1. Encourage municipalities' analysis of transportation needs at the local level, including the relationships between development patterns and transportation needs, and which considers various modes of travel.
2. Encourage coordination and cooperation in comprehensive transportation planning among the various municipalities in the Region and at the Regional, State, and private levels.
3. Undertake a comprehensive Regional analysis of existing and anticipated travel behavior and multi-modal approaches to accommodating anticipated travel demand.
4. Balance Regional and local decision-making, and flexibility in transportation planning, when conflicts develop between local and State plans.
5. Promote a project prioritization process that takes the goals of the Regional Transportation Plan into consideration.
6. Promote open and inclusive public participation in the multi-modal planning and development of transportation projects.
7. Support the planning and design of the Region's transportation system to encourage development and re-development in existing villages, cities, and designated growth centers.
8. Encourage the full integration of transportation and land use planning at the Regional and local level.

### **GOAL 2:**

To preserve and maintain the existing transportation system.

### **Policies:**

1. Support the necessary steps for evaluating, prioritizing, and implementing preventive maintenance programs for all elements of the transportation system.
2. Promote a funding strategy that realizes maximum use of all available resources to ensure adequate maintenance of the existing transportation system.
3. Encourage development patterns that reflect the planned capacity of the transportation system. Level of Service C will be taken as the preferred condition. Level of Service D should be accepted within the more urban, built-up sectors of the Region (for example: Montpelier, Barre City, Northeast Berlin, South Barre, Waterbury Village, Northfield Village, Waitsfield Village, and Irasville).

**GOAL 3:**

Enable the transportation system to operate at its highest efficiency by managing travel demand and encouraging shifts to under-utilized and more efficient travel modes.

**Policies:**

1. Develop a strategy that encourages maximum use of all available transportation resources and allocates those resources to the optimum functioning of the transportation system.
2. Support the education of the Region's employers in the development of Travel Demand Management Programs (e.g. tele-commuting, flextime, compressed work weeks, ride-share matching, preferential parking, commuter fringe benefit, etc.). Facilitate the establishment of Transportation Management Associations to organize and administer TDM programs.
3. Educate the public on modal choices available.
4. Encourage preservation of existing rights-of-way for future transportation purposes. In particular, work to retain abandoned railroad rights-of-way for transportation uses such as trails and bike paths.
5. Consider new or expanded public transit services that serve intra-Regional and intercity travel needs.
6. Encourage full accessibility to the Region's transportation services for the Region's residents in need.
7. Establish aggressive, but realistic, targets for modal shares along Regional trans-

portation arteries.

8. Support updating and optimization of traffic signal timings on a regular schedule and coordinate where appropriate.
9. Market public transit to new users.

**GOAL 4:**

To integrate modes of travel in order to allow for their most effective use and ultimately reduce dependence on single occupant vehicles.

**Policies:**

1. Encourage the development of park and ride lots for car and van pools, and encourage employers to provide incentives to car and van pool users.
2. Promote physical and operational connections between various modes of transportation.
3. Ensure adequate mobility for all segments of the population, including residents who cannot or do not use private automobiles.
4. Foster a sense of mutual respect among users of the various modes of transportation.
5. Encourage the availability of multiple options for the movement of people and goods.

**GOAL 5:**

To establish a transportation system that minimizes consumption of resources and maximizes the protection of the environment.

**Policies:**

1. Support efforts to minimize negative environmental impacts associated with the transportation system (including air quality, noise levels, surface water, vegetation, agricultural land, fragile areas, and historical/archaeological sites).
2. Encourage the preservation and enhancement of scenic views and corridors.
3. Support efforts to minimize energy consumption, especially nonrenewable energy resources, and explore expanded use of alternative fuels.

4. Factor direct and indirect costs and benefits into decision-making. Impacts that are not easily expressed in dollar values should also be considered.

5. Promote public awareness of the environmental impacts resulting from use of the Region's transportation system.6. Promote a transportation system that encourages concentrated development, allows greater access to residences, employment, and services, and facilitates car pooling, bus and rail service, and non-motorized travel.

**GOAL 6:** To make necessary improvements to achieve a transportation system appropriately structured and designed to safely, effectively, and economically move goods and people.

**Policies:**

1. Encourage the appropriate scale and design of streets, highways, and other transportation infrastructure to serve local traffic, destination traffic, and through traffic.
2. Foster a neighborhood street system characterized by a network of interconnected streets that minimizes through traffic in residential neighborhoods.
3. Promote safety-targeted measures at High or Potential Accident Locations, and promote traffic safety Region-wide.
4. Promote projects that limit the conflicts between the motor vehicle traffic stream, pedestrians, and the rail system.
5. Encourage access management policies that reduce traffic congestion and maintain capital investment.
6. Consider new facilities when demand warrants (e.g. when alternatives to reduce congestion and improve safety have been attempted) and/or when other strategic state, Regional, or local goals apply.
7. Foster a sense of safety and comfort for riders of public transit.

**GOAL 7:**

Promote a transportation system design that strives for aesthetic and functional characteristics that improve the quality of life.

**Policies:**

1. Support the design of visually attractive and durable infrastructure such as roadways, pathways, and bridges.
2. Support high architectural standards for terminal buildings, stations, shelters, garages, and other facilities.
3. Respect and enhance the built environment by restoration of period transportation structures where possible, and maintain the natural environment through architectural, landscaped, and engineered features.
4. Encourage traffic calming efforts to minimize conflicts between traffic and surrounding neighborhoods.
5. When feasible, encourage restoration or preservation of historic bridges.
6. Foster improvements that are contextually appropriate.

**GOAL 8:**

To promote a Regional transportation system that preserves and enhances residential and economic development potential in growth areas.

**Policies:**

1. Provide transportation system improvements at locations where they will or can serve growth areas.
2. Foster transportation and commerce links that contribute to the economic health of the Region.
3. Encourage transportation system improvements that renew and improve downtowns, growth areas, and neighborhoods.

**GOAL 9:**

To promote a Regional public transportation system.

**Policies:**

1. Provide for basic mobility for transit-dependent persons.
2. Support public transit that provides access to employment.

3. Encourage congestion mitigation to preserve air quality and the sustainability of the highway network. Support public transit that advances economic development with emphasis directed toward tourist areas.