

TRANSPORTATION

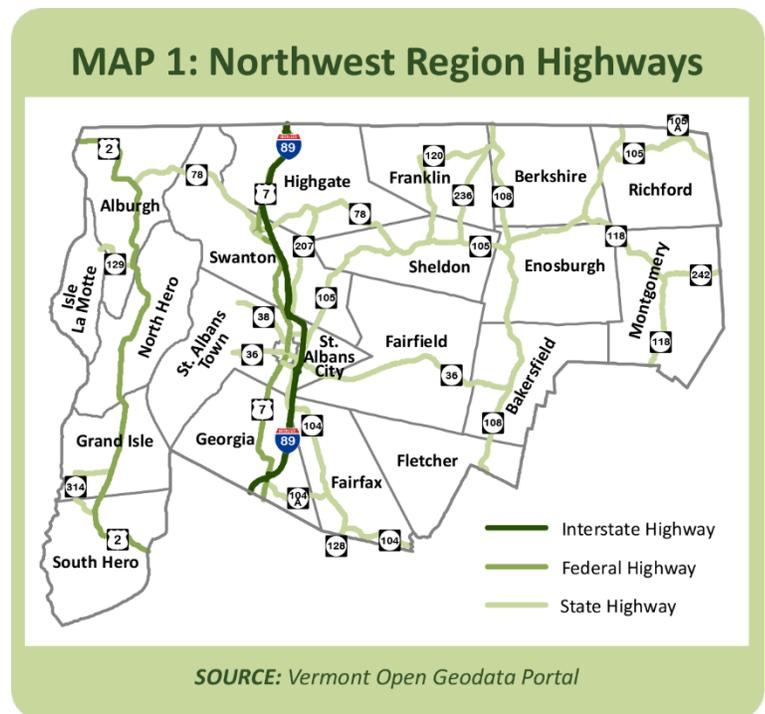
GOALS

1. Ensure all of the region's residents have access to safe and affordable transportation options regardless of age, physical ability, economic status, or other factors.
2. Use creative approaches to maintain, improve, and expand the region's transportation network, and ensure it is resilient to the impacts of climate change.
3. Ensure the transportation network enhances residents' overall quality of life, supports regional land use goals, and expands economic opportunities.

TRANSPORTATION ASSETS AND TRENDS

Roadway

Of all the transportation modes in the region, the roadway is the most widely used means of transportation. There are approximately 1,300 miles of public roadway located in the Northwest region—ranging from town highways to state routes to components of the National Highway System and Interstate 89. The location of state, federal, and interstate highways is shown in Map 1. Privately maintained roads are not shown and there is no data on road conditions or cost of maintenance for private roads.



Interstate Highways: There are 57 miles of interstate highway (I-89) located in the region (just over 25 miles in each direction). This roadway provides limited access via exits 18 through 22. It allows travelers and goods to move at higher speed and capacity, and it is a vital link to Quebec at the Highgate Springs border crossing.

State Highways and Federal Highways: State highways and federal highways make up only 18% of the region's total public roadway mileage, but they are the backbone of the region's transportation system. U.S. 2 and U.S. 7 are the two segments of federal highway in the region. State highways include VT 36, VT 38, VT 78, VT 104, VT 104A, VT 105, VT 105A, VT 108, VT 118, VT 120, VT 128, VT 129, VT 207, VT 236, VT 242, and VT 314. Although these roadways are owned and maintained by the Vermont Agency of Transportation (VTrans), many portions of state highways go through our village centers and serve as our "Main Streets." The sections of state and federal highways in Enosburg Falls, Richford Village, Swanton Village, and St. Albans City are

designated as class 1 town highways. This means the state and the municipalities have joint jurisdiction over the roadways. While VTrans will complete periodic paving, the communities are responsible for regular maintenance and generally have more control over the roadways.

National Highway System: The National Highway System (NHS) was designated in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. The roads that make up the NHS are typically major roads that connect important regional destinations. In the Northwest region, VT 78 from Alburgh to Swanton and U.S. 2 from Alburgh to the New York line are part of the NHS, and these roads serve as a critical link between Interstate 87 in New York and Interstate 89 in Vermont.

At a Glance: Town Highways

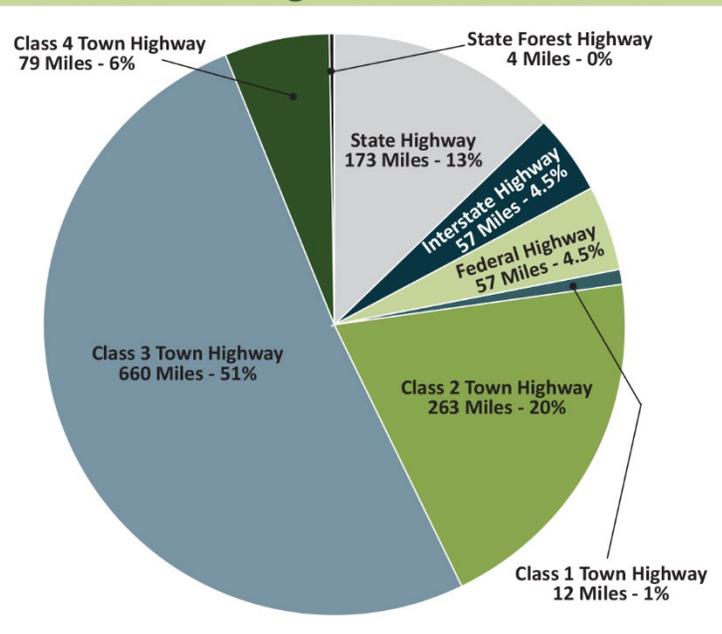
- **Class 1:** Extension of a state highway, maintained by a town
- **Class 2:** Primary local roads
- **Class 3:** Minor local roads maintained year-round
- **Class 4:** Minor local roads not maintained year-round

Town Roads: The remaining public roads not classified previously are town roads that are owned by the municipalities. Of the 1,305 miles of public road in the Northwest region, 1,015 miles (78%) are local roads. Just over half of town roads are paved.

Regional Road Network Condition

Pavement Condition: VTrans evaluates pavement condition on state-maintained highways on a regular basis. Small segments of roadway (0.1 miles) are rated based on roughness, depth of wheelpath deformation/ruts, and the severity and extent of pavement cracking. An overall pavement condition is then derived from these factors. As seen in Table 1, the region’s percentage of state roadway miles with an overall “Good” pavement is lower than the statewide average. and both the region’s percentage of state roadway miles in the “Poor” and “Very Poor” category is higher than the statewide average.

**FIGURE 1:
Northwest Region Public Road Miles**



SOURCE: VTrans Road Centerline Data

**TABLE 1:
Pavement Condition
Ratings of Interstate and State
Highways in the Region**

Category	Franklin & Grand Isle Counties % of Total Miles	Vermont % of Total Miles
Good	23%	30%
Fair	31%	31%
Poor	26%	22%
Very Poor	19%	16%
Invalid	1%	1%

SOURCE: VTrans November 2022 Pavement Condition (0.1-mile segments). Road segments missing data for one or more pavement criteria are classified as “Invalid.”

The VTrans overall policy on roadway pavement condition is designed to ensure that good roads remain in good condition. This policy is based on the understanding that proactive measures are more cost-effective than reactive measures when it comes to maintaining pavement conditions. While this approach makes fiscal sense, there are cases where poor and very poor pavement conditions create safety concerns. NRPC advocates to VTrans for new construction or paving projects to address these concerns.

Bridge Conditions: VTrans inspects all state highway bridges and town highway bridges that are 20 feet in length or longer every two years unless the bridge condition warrants more frequent inspection. The bridge components of deck, superstructure, substructure, and channel conditions are evaluated and each bridge component is ranked on a scale of zero to nine, with nine indicating an excellent condition and zero a failed condition. A bridge with a rating of four or lower in any of the bridge components is reported as being structurally deficient. Of the 161 interstate, state highway, and town highway bridges in the region greater than 20 feet, 5.6% (9 bridges) were reported structurally deficient. This is slightly lower than the state’s 2014 average of 8.3%, but it is still an issue of concern.

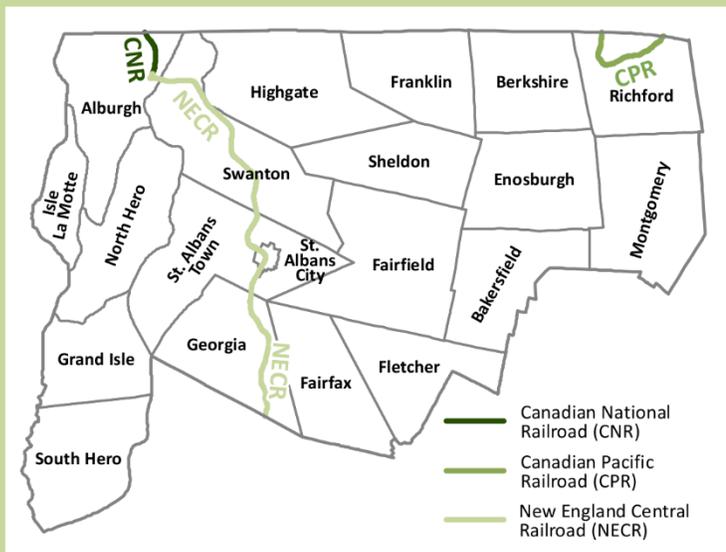
Rail

With three active rail lines, the Northwest region is home to a substantial amount of rail infrastructure (Map 2). This includes the state’s largest private railroad owner/operator, New England Central Railroad (NECR).

**At a Glance:
Bridges in the Region**

- There are 168 bridges (and culverts) with spans 20 feet or greater in the region:
 - 30 bridges on interstate
 - 57 bridges on state highways
 - 74 bridges on town highways
 - 6 railroad bridges
 - 3 pedestrian bridges
- In 2020, the average age of bridges in the region was 59 years old.

MAP 2: Northwest Region Railroads



SOURCE: Vermont Open Geodata Portal

The Canadian National Railway (CNR) operates freight traffic from Alburgh Springs to Canada. This three-mile segment is the only Class 1 railroad in Vermont. Class 1 railroads are the largest rail operators, and they are categorized by their annual operating revenue. There are eight Class 1 railroads currently operating in the United States.

The New England Central Railroad, a subsidiary of Genesee & Wyoming, operates 394 miles of railroad between the Vermont/Quebec border and New London, Connecticut. NECR has several interchanges with Class 1 railroads, including its connection with CNR in Alburgh Springs. NECR serves as a major shipper of goods from Canada to markets in southern New England because it is the only link between Montreal and Boston via rail. NECR’s offices and headquarters are located in St. Albans City, as are the company’s dispatch

operations. NECR also operates the Italy Rail Yard in St. Albans Town, which is the busiest rail yard in Vermont. While the NECR rail in Vermont can accommodate 286,000-pound railcars, weight limits in Massachusetts and Connecticut effectively limit freight to 263,000-pound cars.

Amtrak’s Vermonter route—one of the two Amtrak passenger trains operating in Vermont—operates two trains per day on the NECR tracks: one from St. Albans south to Washington, DC, and one north to St. Albans from Washington, DC. The State of Vermont is committed to restoring passenger rail service to Montreal. Current challenges to this effort include establishing international preclearance procedures, building a preclearance facility in the Montreal station, and restoring track in Quebec.

A 24-mile segment of line operated by Canadian Pacific enters Vermont in Richford to serve the Blue Seal Feeds, re-enters near Troy, VT, and terminates in Newport, VT, where it connects with the Connecticut River Subdivision.

Freight

In Franklin and Grand Isle Counties, as in all of Vermont, trucks are the primary means of freight transportation, but rail is also a critical component of the freight network. Approximately 46.7 million tons of freight moved into, out from, through, or within Vermont in 2018. Trucks carried approximately 84% of that freight and rail carried 15%. By 2045, the volume of freight (when measured by weight) is expected to increase 68% to 78.7 million tons. By 2045, rail is expected to move a larger share of freight (21%) in Vermont. (Vermont Freight Plan 2022). Freight rail transport is most competitive for long-distance hauls of bulky commodities such as coal, grain, paper, wood, and minerals. Freight-generating industries in the region include forest and logging (Franklin County), paper manufacturing (Franklin County), and animal production (Franklin and Grand Isle Counties).

The Interstate I-89 and VT Route 78 corridors in the region have the most freight truck traffic, representing 17% and 13% of total traffic respectively. I-89, VT 78 (from the I-89 intersection in Swanton to the U.S. 2 intersection in Alburgh) and U.S. 2 (from the VT 78 intersection in Alburgh to I-87 in New York State) are designated portions of the National Highway System. The high number of trucks traveling on VT Route 78 in Swanton Village has been of particular concern to the community. Many other communities in the region—such as Alburgh, St. Albans City, Georgia, Enosburg Falls, and Richford—are wrestling with how to accommodate trucks when their Main Streets are also major trucking routes. Periodic closures of VT 78, through Swanton, have proven to redirect significant traffic through the Champlain Island communities along U.S. 2, posing concerns of traffic, safety, and capacity.

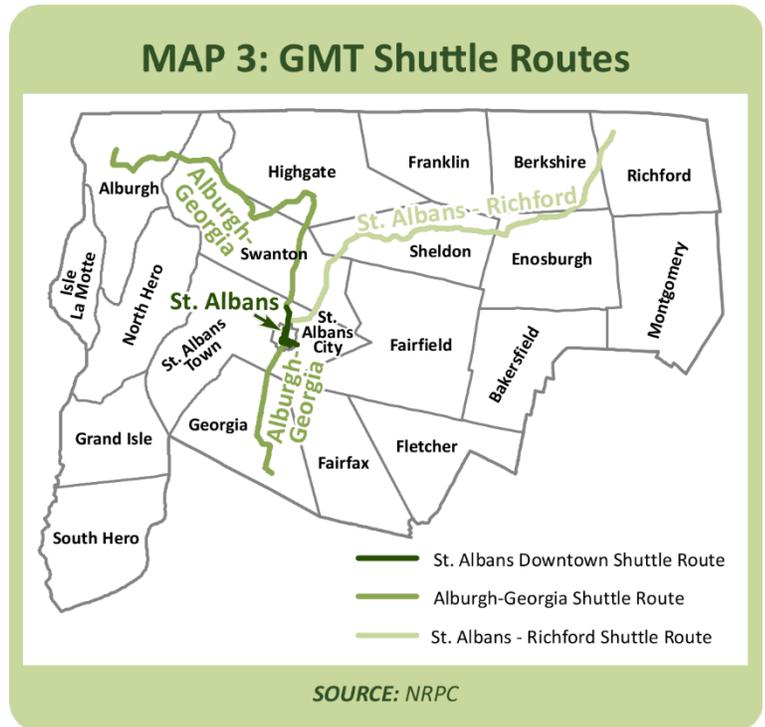
Public Transit

Green Mountain Transit (GMT) is the public transportation provider for Franklin and Grand Isle Counties (Map 3). GMT operates the following five main routes in the region; all are currently fare-free as a result of COVID-19 era policies:

- **St. Albans Downtown Shuttle:** This route provides service through St. Albans City and St. Albans Town from 5:45 a.m. to 6:34 p.m. on weekdays, and from 10:00 a.m. to 3:30 p.m. on Saturdays. Its route includes stops at the Highgate Commons, the State Office Building, the Champlain Valley Office of

Economic Opportunity (CVOEO), Price Chopper, Walmart, Rite Aid, Community College of Vermont, and Northwestern Medical Center, and by request, the Franklin County Senior Center, Hawk’s Nest Housing, and Northwestern Counseling & Support Services (NCSS).

- **Alburgh/Georgia Commuter:** This route provides one morning and one evening weekday commuter trip between Alburgh and the Georgia industrial parks. The Alburgh Commuter serves Swanton, Highgate, St. Albans, and Georgia.
- **Richford/St. Albans Commuter:** This route provides one morning and one evening commuter trip between Richford and the St. Albans Town Industrial Park, Monday through Friday. It travels through Berkshire, Enosburgh, and Sheldon.
- **St. Albans Link Express:** This commuter route to Chittenden County picks up passengers at Highgate Commons and the Collins Perley Sports & Fitness Center and takes them to Burlington. The LINK operates two morning and afternoon roundtrips Monday through Friday.
- **Price Chopper Shopping Shuttle:** This shuttle offers a free ride to the St. Albans Price Chopper for easy grocery shopping. This shuttle only operates on Tuesdays and only within the St. Albans and Swanton areas.



GMT currently operates numerous buses varying in size from 18 to 28 passengers. All buses are lift equipped. All regular routes operate on a fixed deviated schedule, which means that drivers may deviate up to three-quarters of a mile on the St. Albans Downtown Shuttle and up to one-quarter of a mile on the Richford and Alburgh Commuters with at least 24 hours’ notice to pick up or drop off passengers.

GMT provides special transportation services to the elderly, residents who are disabled, Medicaid recipients, and people undergoing radiation and chemotherapy treatments or kidney dialysis who do not have a car or cannot drive for medical reasons. GMT Elderly and Disabled services include transportation to senior meal sites, shopping, and medical services to permit elders to live independently. Services are provided through volunteer drivers, bus service, van service, or taxi cabs. GMT operates four shuttles per day to CarePartners Adult Day Center, providing respite time to caregivers and allowing them to work without concern for the safety of their loved ones. GMT also serves as the fiscal agent for its partner agency, CIDER (Champlain Islanders Developing Essential Resources). CIDER provides transportation to elderly and disabled residents of Grand Isle County.

Much of the region is currently unserved by regular transit routes. Barriers include cost and the low-density population of rural areas. Micro-transit, which is a nimbler on-demand system open to all users, is being

investigated for Franklin and Grand Isle Counties and may hold promise for serving unserved or underserved areas. Current GMT funding formulas require municipalities to pay a non-federal match for new fixed routes based on mileage, without account for tax base or other factors. A more equitable approach to providing the non-federal match, or a source other than the local property tax, will help to ensure a more equitable approach to transit funding.

Air

The Franklin County State Airport is one of ten airports owned by the State of Vermont. The airport has one primary paved runway and two grass runways. The primary runway is equipped with medium-intensity runway lights (MIRLs). Recently, a precision approach path indicator (PAPI) was installed at the airport, and it is available for approaches to the primary runway. Runway end identifier lights (REILs) are available for all runways. The airport facilities include a weather reporting system, a communications relay device that allows the pilots to communicate directly with air-traffic controllers, a 3000' x 60' asphalt runway, hangers, and outdoor aircraft tie downs. The Franklin County State Airport is home base for about 65 aircraft and sees roughly 26,000 operations (takeoffs and landings) per year. Improvements are planned for the airport, with construction expected to begin in 2024. Plans are to rebuild the existing 3,000-foot-long runway and widen it from 60 to 75 feet, the size required under current federal guidelines. Additionally, a 1,001-foot runway extension will allow larger planes to use the airport, including single-engine cargo and passenger planes.

Commercial passenger air travel is available via the Burlington International Airport in Chittenden County, Vermont; the Plattsburgh International Airport in New York State; the Montréal-Pierre Elliott Trudeau International Airport in Quebec; and limited service from Rutland-Southern Vermont Regional Airport. The Montréal-Mirabel International Airport is also located in Quebec, but it primarily transports cargo.

Ferry

The Lake Champlain Transportation Company provides year-round ferry service between the town of Grand Isle and Plattsburgh, New York. The “Cumberland Head” ferry route runs 24 hours per day, seven days per week. The ferry dock is located on VT 314, which is an important link for the ferry traffic traveling to U.S. 2 and I-89. This ferry port is popular with cyclists, as it sits as a prime and convenient location on the popular Champlain Islands Bikeway, which follows portions of VT 314. A seasonal bike ferry also operates from the Colchester causeway to South Hero.

Border Crossings

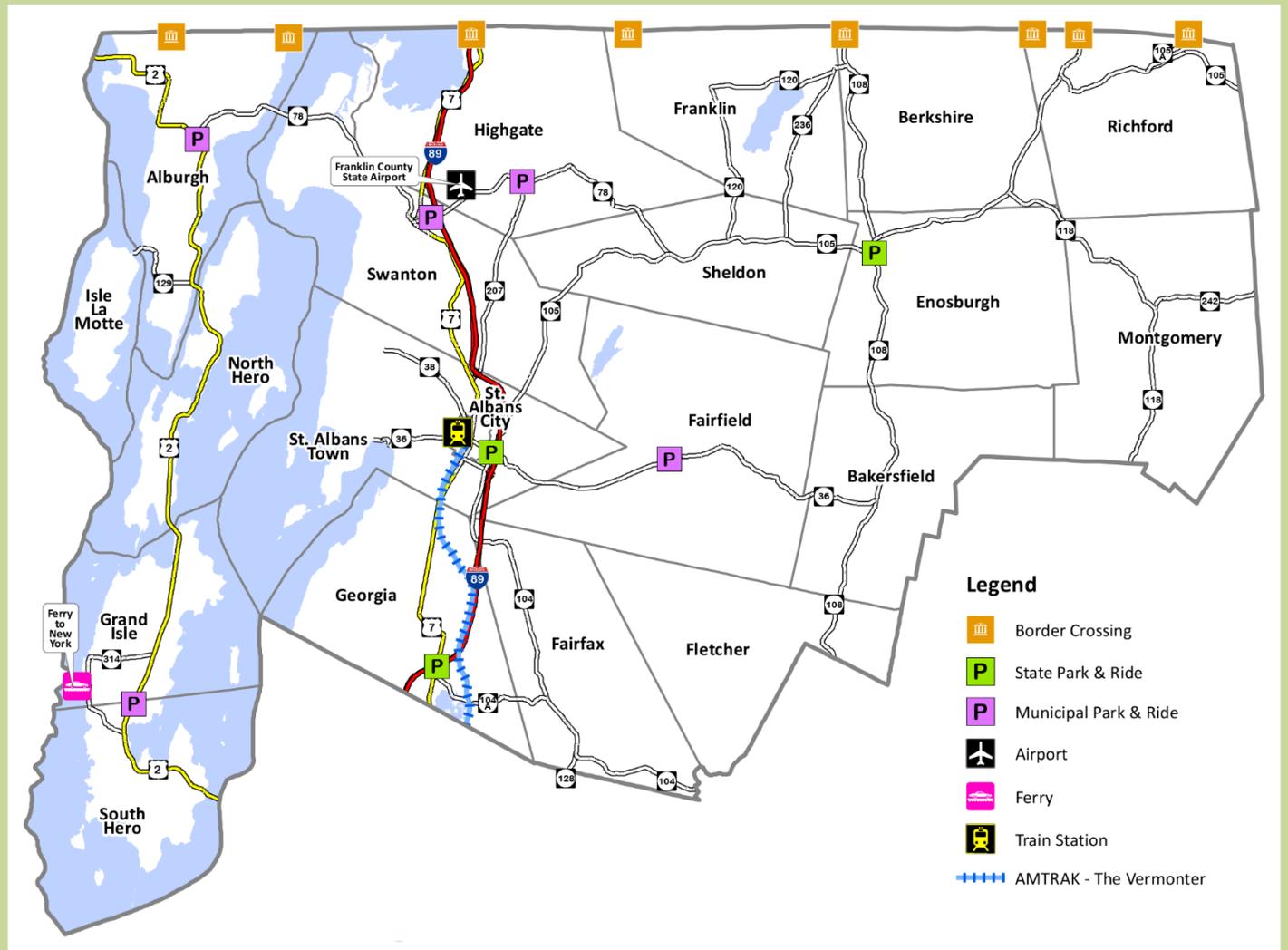
The region has eight border crossings managed by the U.S. Border Patrol under the Highgate Springs Area and the Richford Area. The Highgate Springs Area contains four facilities located in Highgate Springs, Alburgh Springs, Alburgh, and Morses Line. The Highgate Springs Port is one of three U.S. Customs high-volume centers for clearing cross-border commercial traffic in Vermont, with the other two located in Derby Line and Norton. U.S. Customs and Border Patrol has begun the early planning phases for an expansion and improvement project for this facility. The Highgate Springs complex oversees the Highgate and Richford Areas as well as the Burlington International Airport. The remaining three crossings in the Highgate Area are “permit” ports that primarily handle local traffic.

The Richford Area has four ports handling primarily local traffic at three crossings in Richford and one in West Berkshire. Distinct from the border crossings, the customs facility in St. Albans serves as a “service” port that processes information related to cargo classification and passenger information for the entire state (personal communication: Craig Jehle, area port director, U.S. Customs Service, Highgate Springs; Mike D’Ambrosio, U.S. Customs Service, St. Albans).

Intermodal Facilities

Intermodal facilities are locations where commuters, tourists, travelers, and/or freight are transferred from one mode of transportation to another. Consequently, the modal linkages provided by intermodal facilities are key components of effective multimodal transportation systems. Park and ride lots, train stations, bus stations, airports, and ferry stations are examples of intermodal facilities found in the Northwest region.

MAP 4: Transportation Facilities



SOURCE: NRPC

The automobile is by far the dominant mode of transportation in the region. Consequently, most intermodal facilities have automobile parking to accommodate people who drive to an intermodal facility and switch to another mode of transportation (carpool, vanpool, transit, bus, etc.). There are seven state and municipal park and ride lots in the region (Map 4).

TABLE 2: Sidewalk Locations in the Region

MUNICIPALITY	LINEAR FT.	DESCRIPTION
St. Albans City	144,006	Sidewalks are evenly distributed throughout most of the city on both sides of the streets. They are located along the major north–south (US Route 7) and east–west (VT Route 36) streets. 3,269 linear feet were added since 2017.
Swanton	48,009	Sidewalks are evenly distributed throughout Swanton Village, usually on both sides of the streets. 7,105 linear feet of were added since 2017.
Enosburg Falls	34,298	Sidewalks are concentrated in Enosburg Falls along major roads such as VT Route 108 and VT Route 105. They are also located on many minor roads that are perpendicular to those major roads. 10,622 linear feet were added since 2017.
Richford	27,424	Sidewalks are located along north–south streets in Richford Village, with a gap along VT Route 105 south of River Street.
Fairfax	8,472	Sidewalks are located along VT Route 104 between Tuttle and School Streets as well as along Hunt and School Streets. 3,741 linear feet were added since 2017.
Franklin	4,788	Sidewalks are located along Hanna Road near VT Route 120, along VT Route 120 between Lake and Hanna Roads, and along Square Road. These sidewalks were constructed in 2010. 63 linear feet were added since 2017.
South Hero	4,398	Sidewalks are located on the northern and southern sides of US Route 2 near South Street. 1,604 linear feet were added since 2017.
Montgomery	3,806	Sidewalks are located along VT Route 118 (Main Street) near the intersection of VT Route 242 and VT Route 118. 81 linear feet were added since 2017.
St. Albans Town	2,478	A segment of sidewalk is located south of the US Route 7/VT Route 207 intersection, extending into Price Chopper from US Route 7. There are also some sidewalks located on Fairfield Street around the hospital, that is in the Town. 2,178 linear feet were added since 2017.
Georgia	2,454	Sidewalks are located around the Georgia Elementary & Middle School. There are also small sections of sidewalks located at the Georgia Town Office, Georgia Fire Station, next to Maplefields on the northwestern side of US Route 7 and on Sumner Lane.
Alburgh	2,007	Sidewalks are located in Alburgh Village on the eastern side of US Route 2, from Champlain Street to Horican Avenue.
Fairfield	1,572	Sidewalks are located on one side of VT Route 36 in Fairfield Center. There is also a small section of sidewalk around the school library.
Bakersfield	1,101	Sidewalks are located along VT Route 108 (North end of Main Street) and were constructed in 2010. 237 linear feet were added since 2017.
Highgate	626	Sidewalks are located on VT Route 78 in Highgate Center.

SOURCE: NRPC

Active Transportation

Active transportation facilities in the region include on-road shoulders, shared-use paths, and sidewalks. The major facilities are shown on Map 3 in the Social Region, Infrastructure section and include:

- **Missisquoi Valley Rail Trail:** This 26.4-mile crushed stone trail is situated on a railbanked corridor parallel to VT Route 105. The rail trail extends from St. Albans to Richford through the towns of Swanton, Sheldon, Enosburgh, and Berkshire, and it provides an alternative to VT Route 105.
- **Lamoille Valley Rail Trail:** This 96-mile railbanked corridor extends from Swanton to St. Johnsbury. The VT Agency of Transportation completed the majority of construction in summer of 2022 and will manage the trail with the support of local advisory councils. The trail passes through the towns of Swanton, Highgate, Sheldon, Fairfield, Bakersfield, and Fletcher in the region and intersects with the Missisquoi Valley Rail Trail.
- **Alburgh Recreational Rail Trail:** This 3.5-mile cinder and gravel trail is located on a railbed running east–west through Alburgh and is currently used for walking, mountain biking, and cross-country skiing. The rail trail crosses farmland and the Mud Creek Wildlife Management Area to Lake Champlain. It also serves as an alternative to U.S. Route 2 and VT Route 78 for non-motorized modes of transportation.
- **Local Trails:** Many municipalities within the region host a variety of local and recreational trails. Some well-known examples are the Swanton Fit & Healthy Recreation Path (1 mile), Fairfax Recreation Path (0.8 miles), and South Hero Recreation and Marsh Trails (4 miles out-and-back).
- **Sidewalks:** 14 of the 23 municipalities in the region have public sidewalks. A list of these is shown in Table 2. Several municipalities (notably, Enosburg Falls, Fairfax, Swanton, and St. Albans City) have added sidewalks since the last plan update through a combination of developer construction and municipal projects. Sidewalk projects are currently in planning phases in Montgomery, St. Albans Town, Fairfax, Highgate, Enosburg Falls, and Swanton Town.

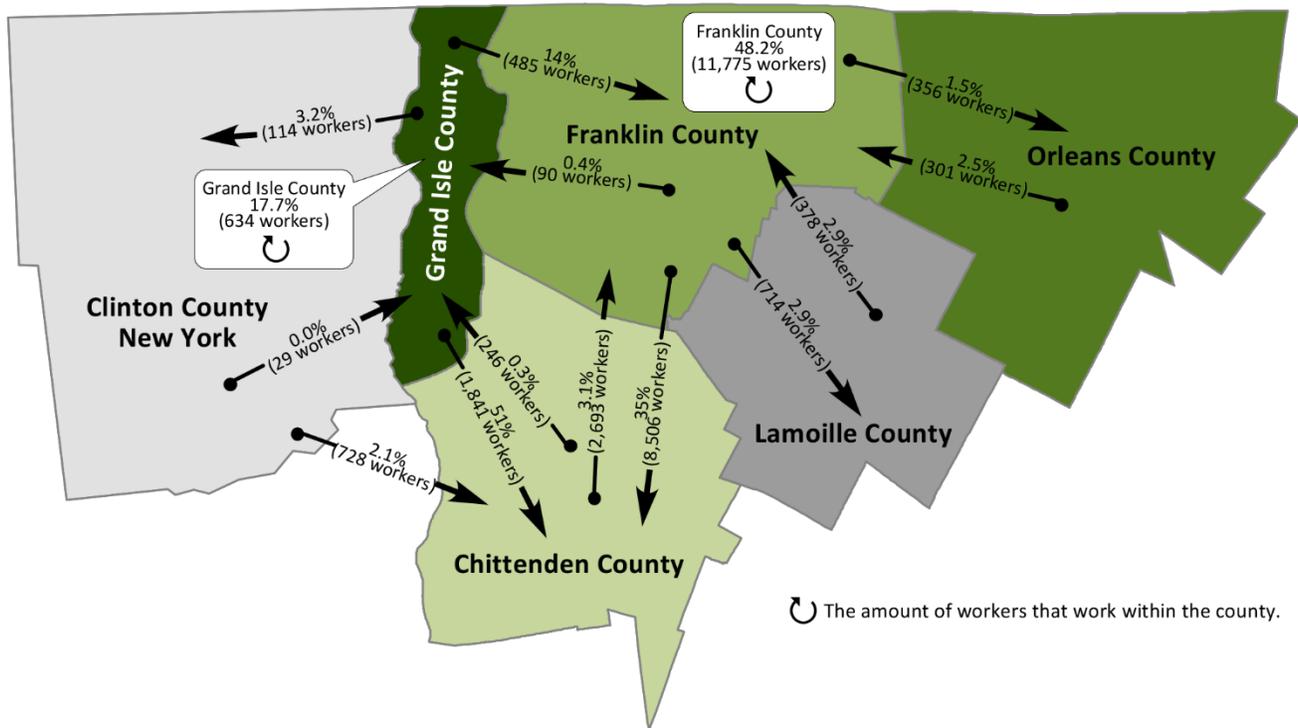
Commuting

As shown in Map 5, a large percentage of the region’s residents work outside of their home communities. This creates a demand for transportation services and infrastructure to get residents to their places of work and home again. As this demand increases, efforts to combine infrastructure capacity improvements with increased public transportation services should be examined at every possible opportunity. Carshare, carpooling, and ridematch services can serve a useful role in rural areas where extensive public transit may not be feasible. The impacts of this daily mass commuter migration extend beyond the “wear and tear” to regional transportation infrastructure. It also impacts other facets of regional life, such as where commuters purchase goods and services. Although 48.2% of Franklin County residents who are employed work within the county, a significant portion (35%) commuted to Chittenden County for work in 2019. With the increase in telework, this number may be lower in 2023.

Complete Streets in Northwest Vermont

Complete Streets is an approach to planning, design, construction, and maintenance of our roadway network to consider all users, including pedestrians, bicyclists, and transit riders. Vermont’s Complete Streets Law, Act 34, went into effect on July 1, 2011. The purpose of the law “is to ensure that the needs of all users of

MAP 5: Northwest Region Workers



SOURCE: Longitudinal Employer-Household Dynamics (2019)

Vermont’s transportation system—including motorists, bicyclists, public transportation users, and pedestrians of all ages and abilities—are considered in all . . . transportation projects and project phases, including planning, development, construction, and maintenance.” There are many reasons to support Complete Streets techniques:

- Improve the safety of all users, including bicyclists, pedestrians, drivers, and passengers.
- Provide greater mobility and accessibility to individuals without cars.
- Offer less costly choices for transportation.
- Provide a physically active option for transportation.

The role of Complete Streets in this plan is to:

- Provide additional clarity to municipalities on how to implement Complete Streets.
- Guide NRPC Act 250 comments/project mitigation recommendations.
- Support regional projects seeking grant funding.
- Allow for stronger regional input in state transportation projects.

Table 3 outlines the implementation policies for Complete Streets for the different land-use categories included in the future land-use map in this plan.

TABLE 3: Implementation Policies for Complete Streets - Part 1
(Parts 2 & 3 are on the next pages)

	Downtown & Village Centers	Village Areas
Sidewalks	<ul style="list-style-type: none"> Gaps in the sidewalk network shall have high priority for new sidewalk construction. Sidewalks shall be constructed within new development or redevelopment projects and on adjacent connected roadways when necessary to build a planned sidewalk network, or to connect to a nearby destination. The construction of sidewalks along existing roadways shall be required during road and intersection improvement projects. 	<ul style="list-style-type: none"> Gaps in the sidewalk network shall have high priority for new sidewalk construction. Sidewalks shall be constructed within new development or redevelopment projects and on adjacent connected roadways when necessary to build a planned sidewalk network, or to connect to a nearby destination. Walkable shoulders may be an alternative on very low traffic roads as per the Vermont Bike and Pedestrian Standards.
Shoulders/ Bike Lanes	<ul style="list-style-type: none"> Bike lanes should be installed along streets with both high bicycle and vehicle traffic volumes. 	<ul style="list-style-type: none"> Bike lanes shall be recommended along streets with existing and anticipated future high bicycle and vehicle traffic volumes. More narrow travel lanes and wider shoulders shall be encouraged, especially in areas without sidewalks.
Shared-Use Paths/ Rail Trails	<ul style="list-style-type: none"> Shared-use paths/rail trails on the outskirts of downtown and village centers should be extended into the center. Shared-use paths/rail trails crossings within downtowns and village centers shall have crosswalks or pedestrian beacons when there is high vehicle volumes and high bike/pedestrian use. 	<ul style="list-style-type: none"> Shared-use paths/rail trails in village areas should be extended into village centers.
Intersections and Crosswalks	<ul style="list-style-type: none"> Curb extensions and pedestrian refuges shall be installed at very wide intersections and may be appropriate at other high activity locations. Intersection upgrades shall accommodate existing and future anticipated bicycle and pedestrian use. New crosswalks shall be supported when the crosswalk can be located in an area with proper sight and stopping distances. 	<ul style="list-style-type: none"> New crosswalks shall be supported when the crosswalk can be located in an area with proper sight and stopping distances. Intersection upgrades shall accommodate existing and future anticipated bicycle and pedestrian use. Curb extensions and pedestrian refuges may be appropriate at very wide intersections.
Transit	<ul style="list-style-type: none"> Transit stops shall be clearly marked and located in accessible areas for users. New development within downtown and village centers shall work with local transit providers to increase routes within the area. 	<ul style="list-style-type: none"> Transit stops shall be clearly marked and located in accessible areas for users.
Maintenance	<ul style="list-style-type: none"> Snow/ice shall be removed from sidewalks to allow for year-round pedestrian use. Crosswalk and bike lane markings should be regularly maintained. 	<ul style="list-style-type: none"> Snow/ice shall be removed from sidewalks to allow for year-round pedestrian use. Crosswalk and bike lane markings should be regularly maintained.
Other Considerations	<ul style="list-style-type: none"> Amenities (e.g., pedestrian-scale lighting, bike racks, street furniture and trees) should be encouraged. On-street parallel parking shall be encouraged. Curb cuts on the roadway shall be minimized. Entrances to existing parking lots should be limited and made narrower. 	<ul style="list-style-type: none"> Amenities (e.g., pedestrian-scale lighting, bike racks, street furniture and trees) should be encouraged. Curb cuts to the roadway shall be minimized. Entrances to existing parking lots should be limited and made narrower.

TABLE 3: Implementation Policies for Complete Streets - Part 2
(Part 1 is on the previous page and Part 3 is on the next page)

	Planned Growth Areas & Transition Areas	Enterprise Areas
Sidewalks	<ul style="list-style-type: none"> Gaps in the sidewalk network shall have high priority for new sidewalk construction. Sidewalks shall be constructed within new development or redevelopment projects and on adjacent connected roadways when necessary to build a planned sidewalk network, or to connect to a nearby destination. The construction of sidewalks along existing roadways shall be required during road and intersection improvement projects. 	<ul style="list-style-type: none"> Enterprise Areas within ¼ mile of Planned Growth Areas and where the development meets the definition of Substantial Regional Impact, shall follow the Planned Growth Area standards for sidewalks. In other areas, sidewalks shall be encouraged if there is an identified local need or plan.
Shoulders/ Bike Lanes	<ul style="list-style-type: none"> Bike lanes shall be recommended along streets with existing and anticipated future high bicycle and vehicle traffic volumes. 	<ul style="list-style-type: none"> Wider shoulders should be constructed. Bike lanes shall be recommended along streets with existing and anticipated future high bicycle and vehicle traffic volumes.
Shared-Use Paths/ Rail Trails	<ul style="list-style-type: none"> Shared-use paths/rail trails in planned growth areas should be extended into downtowns and village centers. Shared-use paths/rail trails crossings within planned growth areas shall have crosswalks or pedestrian beacons when there is high vehicle volumes and high bike/pedestrian use. 	<ul style="list-style-type: none"> Crossings should have crosswalks or pedestrian beacons when there is higher vehicle use. New roads crossing existing trails shall have stop sign– controlled accesses.
Intersections and Crosswalks	<ul style="list-style-type: none"> New crosswalks shall be supported when the crosswalk can be located in an area with proper sight and stopping distances. Intersection upgrades shall accommodate existing and future anticipated bicycle and pedestrian use. Curb extensions and pedestrian refuges shall be installed at very wide intersections. 	<ul style="list-style-type: none"> Intersection upgrades shall accommodate existing and future bicycle and pedestrian use.
Transit	<ul style="list-style-type: none"> Transit stops shall be clearly marked and located in accessible areas for users. New development within planned growth areas shall work with local transit providers to increase routes within the area. 	<ul style="list-style-type: none"> Transit stops shall be clearly marked and located in accessible areas for users.
Maintenance	<ul style="list-style-type: none"> Snow/ice shall be removed from sidewalks to allow for year-round pedestrian use. Crosswalk and bike lane markings should be regularly maintained. 	<ul style="list-style-type: none"> Snow/ice shall be removed from sidewalks to allow for year-round pedestrian use.
Other Considerations	<ul style="list-style-type: none"> Amenities (e.g., pedestrian-scale lighting, bike racks, street furniture and trees) should be encouraged. On-street parallel parking shall be encouraged. Curb cuts to the roadway shall be minimized. Entrances to existing parking lots should be limited and made narrower. 	<ul style="list-style-type: none"> Accesses to the roadway shall be minimized.

TABLE 3: Implementation Policies for Complete Streets - Part 3
(Parts 1 & 2 are on the previous pages)

	Resource Based Recreation Areas & High Density Residential Clusters (Including Senior Housing) Located within Hamlets & Rural Areas	Hamlets & Rural Areas
Sidewalks	<ul style="list-style-type: none"> Sidewalks or paths should be constructed within the development to allow for bike and pedestrian circulation within the development. Sidewalks or paths should be constructed to connect the development to the adjacent public roadways. 	<ul style="list-style-type: none"> While not discouraged, sidewalks in rural areas shall be encouraged if there is an identified local need or plan.
Shoulders/ Bike Lanes	<ul style="list-style-type: none"> Bike paths or bike lanes should be constructed within the development to allow for bike and circulation within the development. Bike paths or bike lanes should be constructed to connect the development to the adjacent public roadways and shall be constructed to connect adjacent public facilities or community amenities. 	<ul style="list-style-type: none"> Areas with higher bicycle and pedestrian usage shall be prioritized for shoulder widening as part of planned paving projects.
Shared-Use Paths/Rail Trails	<ul style="list-style-type: none"> New roads crossing existing trails shall have stop sign–controlled accesses. 	<ul style="list-style-type: none"> New roads crossing existing trails shall have stop sign–controlled accesses.
Intersections and Crosswalks	<ul style="list-style-type: none"> Not applicable. 	<ul style="list-style-type: none"> Not applicable.
Transit	<ul style="list-style-type: none"> Expanded transit services shall be encouraged for new developments. Parking lots shall accommodate transit parking and the loading/ unloading of users. 	<ul style="list-style-type: none"> Not applicable.
Maintenance	<ul style="list-style-type: none"> Property managers should adopt a winter maintenance policy for existing or proposed bike and pedestrian facilities. 	<ul style="list-style-type: none"> Not applicable.
Other Considerations	<ul style="list-style-type: none"> Not applicable. 	<ul style="list-style-type: none"> Not applicable.

Transportation Planning in Northwest Vermont

Transportation Planning Initiative: The Transportation Planning Initiative (TPI) provides the main framework and funding source for transportation planning in the region. It was created by the State of Vermont in 1991 in response to the federal Intermodal Surface Transportation Efficiency Act (ISTEA)—legislation with broad goals toward the development of a transportation system that is efficient, economical, respectful of local needs, and integrated with land-use planning.

The TPI intends to achieve the following goals:

- Improve linkages between transportation planning and planning for land use, economic development, emergency preparedness, and natural resources at the state, regional, and local levels.
- Increase participation by municipalities and members of the public in making transportation decisions.
- Facilitate implementation of transportation projects through greater understanding of transportation issues and opportunities.

Long-Range Transportation Plan: The TPI requires NRPC to develop and periodically update a Long-Range Transportation Plan that outlines a vision for the region’s current and future transportation system, outlines specific action strategies, aids in the selection and prioritization of future transportation investments, and guides NRPC’s comments throughout the Act 250 project review process. In past editions, the Long-Range Transportation Plan was a stand-alone document that was part of the regional plan by reference. It is now fully integrated into the regional plan, primarily in this transportation section.

Transportation Advisory Committee: The Northwest Transportation Advisory Committee (TAC) is critical in ensuring the public is engaged in the transportation planning process. TAC membership includes a representative from each municipality in Franklin and Grand Isle Counties and one representative from the following organizations or interests: air, rail, bike, pedestrian, and public transportation.

The TAC plays a vital role in identifying regionally important needs and projects through Vermont Project Selection and Prioritization (VPSP2). The team is also annually apprised of, and able to collaborate with, area-specific developments that are related to transportation: i.e., Green Mountain Transit plans, Road Safety Audit Reviews, Traffic Counts, etc.

In addition to ensuring legislative and regional compliance, TAC meetings support greater community growth, municipally focused development, and best practices. Regular meetings provide the working group a chance to learn from and with one another. The natural synergy fostered by TAC meetings provides advantages beyond planning and often encourages conversation around new or updated procedures, project management, and strategic initiatives.

Village Master Planning: NRPC supports village master planning efforts alongside municipalities. Many of these plans contain and incorporate transportation aspects, including pedestrian and bike facilities, streetscape design, and traffic calming. Recent master plans include:

Georgia South Village Transportation Master Plan (2019)

A collaborative effort between the Town of Georgia, NRPC, and VTrans to articulate and prioritize transportation and land-use strategies that will help foster the development of a dense, mixed-use, walkable village setting in Georgia’s South Village district.

Alburgh Village Master Plan: Town and Village of Alburgh (2019)

An illustrative plan of the “public space” in Alburgh Village that identifies how that space can be improved to further the goals of the Alburgh Municipal Plan. This part of the plan contains proposals for traffic calming, sidewalks, bike lanes, street trees, and aesthetic improvements.

Enosburg Falls Vital Village Master Plan (2019)

A collaborative vision for a vibrant and healthy village center. Intended outcomes include improved and safer transportation alternatives, including wayfinding and Complete Streets improvements; improved pedestrian experience along Main Street through streetscape enhancements; and enhanced tourism and commerce in the village center through marketing and branding.

Connecting Sheldon: The Heart of Franklin County Strategic Bike and Pedestrian Plan (2020)

Identification of projects that would make walking and biking in village centers safer and to capitalize on the recreational and economic opportunities of the intersecting Lamoille and Missisquoi Valley Rail Trails.

FUTURE TRANSPORTATION NEEDS

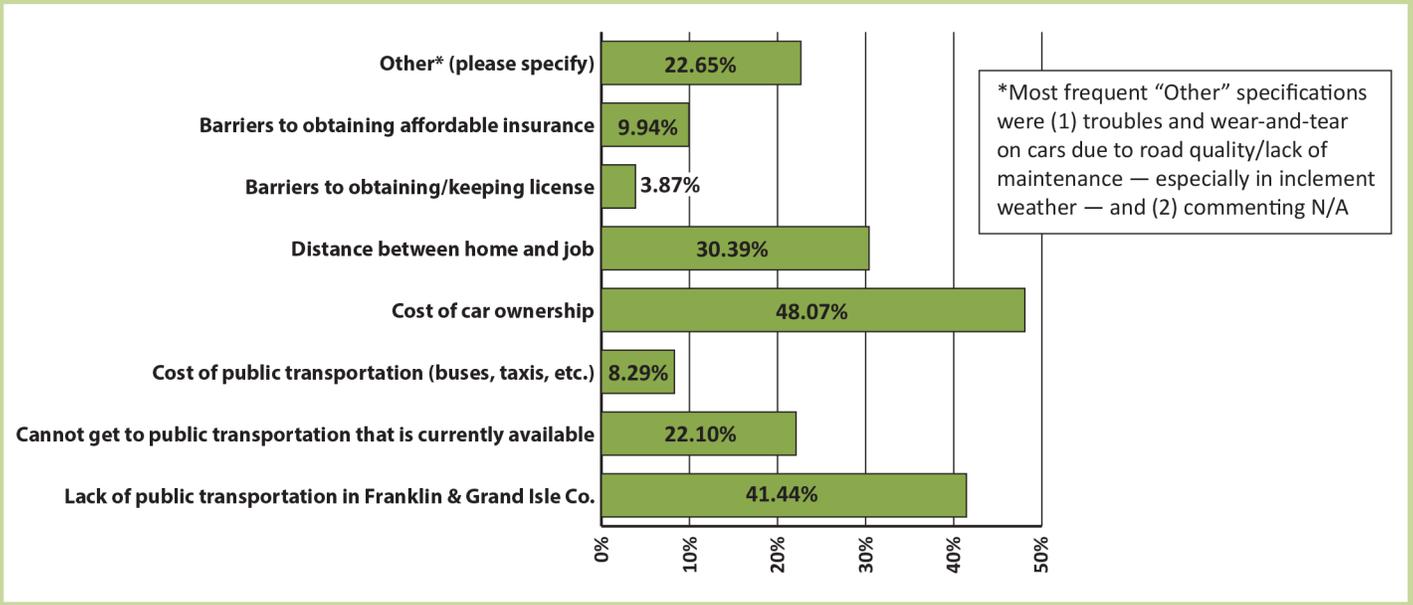
Cost and Access

The Northwest Region has high transportation costs. Lack of transportation is frequently noted as an impediment to employment, education, and health care. The Working Community Challenge general public survey identified the most common impediments to accessing transportation (Figure 2). Three related factors topped the list: cost of car ownership, distance from home to work, and the lack of public transportation. As noted in the introduction, all but one small area of the region is considered cost-burdened for transportation. This data shows the importance of making progress on the regional plan goals—for example, increasing public transit routes and sidewalks and building more housing units near our employment centers will help to ease the transportation cost burden. Additionally, roadway access to Grand Isle County is limited, making improvement to Exit 17 in Chittenden County an important project for the region.

Climate Change: Greenhouse Gas Mitigation, Adaptation, and Resilience

Due to the rural nature of the state, transportation makes up 38% of the total energy consumed in Vermont and produces more greenhouse gas emissions—around 40% of the state’s total—than any other sector. The

FIGURE 2: Working Communities Challenge Survey
What Aspects of Transportation Do You Find the Most Challenging in Franklin and/or Grand Isle Counties? (please pick 1 to 3 options)



SOURCE: Working Community Challenge General Public Survey

2022 State Comprehensive Energy Plan calls for 10% of energy needs in the transportation sector to come from renewable energy by 2025, and 70% by 2040. To achieve these goals and help mitigate the effects of climate change, NRPC supports efforts to adapt and become more resilient.

As one of the more rural areas in the state, the region’s residents rely heavily on their personal vehicles for commuting and daily needs. Transportation infrastructure that increases the quality and types of transportation choices available—like public transit, rideshares, bicycling, and walking—provides alternatives to single-occupancy vehicles. These choices make the transportation system more accessible and equitable while also helping to make communities more livable and vibrant and reducing energy use and emissions.

Increasing transportation choices and promoting land-use patterns that support compact and mixed-use settlement are mutually reinforcing strategies that can drastically improve outcomes for the transportation system. Making roads that are suitable for multiple types of transportation can help create a foundation of more efficient and low-carbon infrastructure. Creating a smart transportation plan and foundation is key to having the infrastructure that can evolve and change with the needs of the community and environment in the future. To help reduce emissions, residents must continue to expand the market share of electric cars and trucks. This strategy can move the transportation sector toward energy and emissions goals faster than any other single measure. Although EVs are becoming more accessible, it is crucial to have a wide range of equitable options for transportation.

Climate offers a unique challenge to our transportation system. As severe weather becomes more common, it is important that the transportation system and infrastructure can handle these changes. NRPC’s work in hazard mitigation and climate resiliency is explained more in the resilience chapter.

Project Priorities

The VTrans Capital Program outlines the state’s capital transportation investments over the next five years. The program is updated annually and covers a range of transportation infrastructure projects, including highways, bridges, rail, aviation, and public transportation. The purpose of the program is to ensure that VTrans’ capital investments align with the state’s transportation goals and priorities, as well as meeting federal and state regulations. Many—but not all—of the region’s priority transportation projects are in the Capital Program.

The TAC has a long-standing role helping prioritize projects for the Capital Program. In 2021, VTrans implemented a new methodology for identifying, selecting, and prioritizing projects for the Capital Program called Vermont Project Selection and Prioritization (VPSP2). The VPSP2 framework relies on data to maximize the “transportation value” delivered to Vermont taxpayers. This helps to maximize the way transportation funding is used in Vermont.

At a Glance: TAC Identified Roadway, Safety & Traffic, and Project Needs Not in the Capital Program

- VT 120- address drainage issues to mitigate on-going poor pavement conditions.
- VT 120/VT 236/Middle Road Intersection upgrades in Franklin.
- US RT 2/South St. Traffic and safety concerns at a busy intersection in South Hero.
- US RT 2/Hyde Rd. Traffic and safety concerns at a busy intersection in Grand Isle.

VPSP2 utilizes two main sources for understanding transportation needs: Vermont Agency of Transportation asset management systems and regional planning commissions' regionally driven transportation needs. In combination, these two sources evaluate each need across eight criteria: safety, asset condition, mobility and connectivity, economic access, resiliency, environment, community, and health access. VPSP2 prioritizes projects on a two-year alternating cycle. Phase 1 includes addressing roadway, traffic and safety, and paving needs; phase 2 mainly includes bridges.

The TAC and the transportation planner are generally responsible for this planning activity. The transportation planner utilizes tools provided by VTrans to assign each project or area of concern with a score. The TAC then considers these scores and makes a final determination to be submitted to VTrans.

At a Glance: High Priority Paving, Safety & Traffic, Bridge and Roadway Projects in Capital Program

- VT Route 78 reconstruction from Swanton Village to the Missisquoi Bay Bridge- NH 036-1(9)
- I-89 Exit 19/VT 104/SASH intersection upgrade- ST. ALBANS 044-1(2)
- VT 104/VT 128 intersection upgrade-FAIRFAX STP 023-1 (8)- FAIRFAX STP 023-1 (8)
- I-89 Exit 21 address congestion on northbound exit ramp- SWANTON IM 089-3 (82)-
- US 7/VT 104A and I-89 Exit 18- Intersection and park and ride upgrades in Georgia South Village- GEORGIA STP 0285 (18)
- St Albans City Federal Street Corridor- ST. ALBANS CITY RAIZ(3)
- Swanton Village bridge B6 on VT 78 rehabilitation- SWANTON BF 036-1 (16)

GOALS AND POLICIES

1. **Ensure all of the region's residents have equitable access to safe and affordable transportation options regardless of age, physical ability, or economic status or other factors.**
 - a. Ensure that the region's transportation network will safely accommodate all users, including pedestrians, bicyclists, motorists, freight, and public transit users.
 - b. Seek out engineering, enforcement, and behavior change solutions to address safety issues on the transportation network.
 - c. Support new and expand existing public transportation services to serve both transit-dependent and transit-by-choice riders.
 - d. Support new revenue sources or equitable approaches to providing non-federal match for transit services.
 - e. Support changes to match requirements for multi-modal transportation grants to ensure a municipality's ability to pay is considered.
 - f. Prioritize transportation investment in communities or neighborhoods of historic underinvestment or disinvestment.
2. **Use creative approaches to maintain, improve, and expand the region's transportation network, and ensure it is resilient to the impacts of climate change.**
 - a. Use innovative planning, design, construction, and contracting techniques to reduce cost and improve project delivery while still allowing for transparency and public oversight.
 - b. Facilitate public-private partnerships that implement the recommendations of local, regional, and state planning efforts.

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- c. Ensure that new commercial, multi-use, and multi-unit (4+) housing developments provide electric vehicle charging stations and provisions for public transit.
 - d. Ensure that new transportation facilities are designed with consideration for the people using the facilities and incorporate context-sensitive design features.
 - e. Incorporate climate resilience and greenhouse gas mitigation considerations in new and upgraded transportation facility designs and in project prioritization.
 - f. Implement the goals of the Vermont Climate Action Plan when developing new transportation projects and programs. This can include planning for appropriately sized culverts and stormwater mitigation, which better meet the challenges of current increased rainfall totals.
 - g. Use transportation as a tool to reduce greenhouse gas emissions, through planning for smart traveling (e.g., carpool, rideshare, public transit), EV charging infrastructure and walkable/bikeable infrastructure.
- 3. Ensure the transportation network enhances residents' overall quality of life, supports regional land-use goals, and expands economic opportunities.**
- a. Ensure that construction and maintenance of the transportation network minimizes negative impacts on natural, cultural, and scenic resources.
 - b. Use appropriate Complete Streets techniques depending on the land-use context, including as described in Table 3.
 - c. Develop and maintain rail, truck freight, and air facilities in a manner that supports efficient operation of the system, ensures compatibility with the host community, and increases economic opportunities for the region.
 - d. Implement the land-use and transportation recommendations from regionally endorsed (i.e., TAC or NRPC board) corridor plans.
 - e. Implement the goals of the Vermont Comprehensive Energy Plan when developing new transportation projects and programs.
 - f. Ensure that new land development does not negatively impact the safety of any mode within the transportation network.
 - g. New public and private transportation infrastructure shall be designed and built to interconnect with adjacent land development(s).