TECHNICAL PLANS

**VISION CONNECTION**

* **Affordability:** Personal vehicles are a major cost for most residents.
* **Economic Opportunity**: Convenient transportation opens many doors, i.e. jobs, schools, business expansion, and cultural and social opportunities.
* **Mobility + Transportation Options:** Increasing options for mobility and transportation is one of the best ways to accommodate shifting demographics.
* **Natural + Working Lands**: Roads account for a great deal of impermeable surface, resulting in pollution, while fragmenting habitat and wildlife passages. Land use regulation also contributes to placement of housing and thus, affects the distances traveled by residents
* **Safe + Resilient Community:** Roads can be a big public safety hazard (car accidents, washouts, etc.), but can increase safety and resilience, when they are designed and built well.

### Transportation

Most Richmond residents have and rely on personal vehicles, but demand is increasing for a wide variety of transportation options, including bus and rail service, bikeable and walkable streets and trails, and electric vehicles.

Rural communities notoriously struggle to provide public transit and walkable streets, but they are increasingly embracing urban ideas for improving the diversity, affordability, and sustainability of transportation methods. A leading philosophy is “Complete Streets” – the notion that we should design streets for many uses and transportation types, rather than just for cars. Complete Streets can result in less car use, which means that we need fewer parking spaces, fewer roads, and less auto-oriented development, which can help increase the vibrancy and attractiveness of the town while reducing impermeable surfaces and municipal costs. Less car use also contributes to Vermont’s energy reduction goal, which has been adopted statewide to help reduce greenhouse gas emissions and the harmful effects of climate change. We can then focus resources on improving the safety, efficiency, and sustainability of our auto infrastructure. All of these changes will help improve quality of life for Richmond residents – whether they drive cars or not.

Richmond includes some infrastructure or support for a diverse range of transportation modes, but options are limited for anything other than personal vehicles. Most Richmond residents own at least one car, and Richmond has approximately 85 miles of roadway (including state-owned, town-owned, and private). The town also maintains extensive road infrastructure to support them, including more than 30 bridges and 712 culverts. Richmond also maintains numerous parking spaces and lots; a 2015 study showed that most public lots are sufficient for parking volumes, but the Depot Street Lot is overburdened. While electric vehicle popularity is growing, there are currently no known public charging stations for electric vehicles in Richmond (or anywhere between Waterbury and Williston).

Changing demographics and regional growth do impact traffic patterns and volumes locally. Traffic counts overall are relatively stable, or even decreasing on many roads. At the same time, increased volumes and congestion are causing problems on certain key commuter routes and choke points– such as the Route 2 and Bridge Street intersection, which also has the worst safety rating in town. The majority of Richmond residents (82%) commute out of town for work, the largest employment centers are Williston/South Burlington/Burlington, and Waterbury/Montpelier.

Richmond has a popular Park and Ride near Interstate 89, which enables carpooling and access to an I-89 commuter bus, but most commuters (88%) still travel in personal vehicles. It also currently has inadequate capacity for the parking demand. There is no weekend or evening bus service and no stop or access point in the downtown or villages. A rail line runs through Richmond, carrying freight and the once-daily Amtrak passenger service, but the nearest stops are in Essex Junction and Waterbury. The supplemental ride service Neighbor Rides helps fill transportation gaps for seniors or those with disabilities or special needs, but there are no supplemental ride services for most residents. Richmond is also near the Burlington International Airport, thus private and public aviation options should be considered in transportation and land use policies.

Active or human-powered transportation (primarily biking and walking) is increasingly popular among many residents. This low impact choice of transportation has many benefits – recreation, health, sustainability, convenience, affordability, energy efficiency, and more. Richmond has a sidewalk system in the village area, which helps improve safety and vibrancy downtown, but there is no dedicated infrastructure to support biking or walking outside the village, or to make these options safer. Richmond has long held a goal of improving bikeability and walkability, and it was one of the most common themes during the visioning process. Several studies, including our Bridge St. Bicycle and Pedestrian Feasibility Study, and the Route 2 Scoping Study, detail specific recommendations and locations for bike lanes, signage, sidewalk extensions, and other high-priority improvements. Richmond conducted a pop-up installation of high-priority enhanced crosswalks in the village during this planning process, and found a need for updated and potentially relocated crosswalks in the village. Richmond has an extensive trail system established and maintained by the Trails Committee, which is used for recreation as well as point-to-point travel. Trail connectivity is an important factor in usage and travel efficiency, as well as in reducing vehicle traffic.

In addition to its impact on mobility, Richmond should focus on increasing the sustainability and resilience of transportation systems. With miles of impermeable surfaces, roads are one of the greatest contributors to non-point source pollution and water quality problems. When storms wash out or erode roadways, they further contribute to sedimentation and pollution problems, while cutting off travel routes and requiring expensive repairs. Richmond’s culverts are critical to preventing storm damage; a 2015 study showed that only 50 need immediate attention, but 93% may be too small to accommodate flows during heavy storms. Road maintenance and construction are among the greatest costs to the town; reducing vehicle use and improving road resilience are critical strategies for controlling municipal costs and tax rates and meeting energy goals. Improvements to transportation infrastructure are also expensive, but can be minimized by integrating them into other planned upgrades (such as paving projects or bridge replacements) and by using pop-up design demonstrations to test and refine designs before final installation. Local, regional, and state documents inform our transportation policies and activities. These include The Chittenden Active Transportation Plan, VTrans goals and Better Roads and General Roads Permit, and the CCRPC Metropolitan Transportation Plan. Please refer to the resources section of the appendices for a complete list of Richmond’s transportation studies and plans. The studies and plans mentioned in this section can also be found on the Town of Richmond website.

#### **Goals & Actions**

**GOAL 1: Maintain a “Complete Streets” policy that encourages multi-modal transportation options such as walking and biking in addition to vehicle traffic**

**ACTIONS:**

1. Implement high priority actions from completed planning studies, such as new sidewalks within the village along the east side of Bridge St. and 4 new crosswalks at the Bridge/Railroad/Jolina intersection as soon as is feasible. This may require identifying funding sources and/or integrating the projects into the Capital Budget's road maintenance schedule
2. Support the construction of sidewalks and bike paths or line striping for cyclists on State and Town road projects. Consider making wider shoulders on Town roads, especially Cochran, Huntington, and Hinesburg Roads. Work with VTrans to prioritize rebuilding Route 2 (Main Street) including sidewalks and bicycle/pedestrian accommodation
3. Work with partner agencies and organizations to identify and test (through pop-up demonstrations or other means) best practices in bike and pedestrian safety and implement low-cost improvements that have been identified such as better signage and road markings
4. Support Safe Routes to School and other walking projects, and road running races on town roadways
5. Support interconnectivity of trails and connectivity of trails with destinations such as the market or park and ride in order to provide non-motorized means of travel
6. Publicize and support the Cross Vermont Trail and other public trails
7. Consider handicap accessibility when making decisions about location of paths, parking, crosswalks, and transit routes

**GOAL 2: Improve safety and efficiency of public roads and bridges**

**ACTIONS:**

1. Work with VTrans to adjust the signaling at the Route 2/Bridge Street intersection to improve traffic flow and safety rating and continue to support policing and traffic management during morning and evening busy times
2. Identify road segments where noise, speed, congestion or safety is/are a problem and work to develop strategies to reduce the negative impacts.
3. Work with VTrans and CCRPC to keep bridges on a good maintenance and repair schedule
4. Implement pedestrian and bike traffic signage in the village and heavily bike-trafficked areas
5. Implement necessary improvements for compliance with the Municipal Roads General Permit

**GOAL 3: Increase the resilience of transportation infrastructure**

**ACTIONS:**

1. Identify and upgrade undersized culverts to prevent washouts. Use best management practices for managing runoff during road construction or reconstruction.
2. Work to site new roads away from rivers and streams, and reroute or stabilize roads that are susceptible to flooding
3. Reduce stormwater runoff by using best practices and incorporating green infrastructure into town road construction, facilities and landscaping.

**GOAL 4: Encourage transportation policies and programs that reduce single-occupancy vehicle travel on town roads**

**ACTIONS:**

1. Support public and private policies, programs or other efforts that promote alternatives to single-occupancy vehicle travel such as public transit improvements, car-sharing, telecommuting, flexible work schedules and school bus usage.
2. Work with other Chittenden County towns and the Agency of Transportation to add/expand Park and Ride facilities in Richmond and neighboring Towns to provide alternatives to the Richmond Park and Ride that is currently of inadequate capacity. Identify possible additional Park and Ride capacity space in Richmond, such as on the south side of the I89 interchange with a pedestrian crossing light at the existing interchange traffic light.
3. Encourage “smart growth” development in the village center or downtown, or near transit options, to reduce car travel distances.
4. Support social service transportation such as SSTA, Neighbor Rides and others for elderly, disabled or other non-drivers.
5. Partner with the Mount Mansfield Modified Union school District to increase bus ridership, or create other means to reduce morning congestion at the Four Corners
6. Work with the school district to examine the possibility of using school buses as a shuttle system around town during hours when buses are not transporting students

**GOAL 6: See energy-related transportation goals and actions in the Energy technical plan**

(see also Housing, Economic Development, Education, Community Development & Resilience)