

# 1 4. Transportation

## 2 A. Introduction

3 When we plan for “transportation,” or even “mobility” (the word used in  
4 transportation circles to generally signify movement along roads), the primary  
5 goal is access. We may drive to the store by ourselves to get groceries, but what  
6 we need are the groceries, not the drive. If the groceries were delivered, that  
7 would provide access to groceries just as well. Most of us need to physically go to  
8 work, but if we live close, we can walk or bike there instead of driving. We can  
9 carpool if we live near enough to workmates, and we can take transit if there is a  
10 suitable route. All of these are means of access. If our job can be done online, all  
11 we need is good broadband to telecommute. Business and tourism needs are  
12 much the same as for households; they need access, not a specific means of  
13 transport.

14 The regional transportation system is not just the built network of roads. It also  
15 includes railways, airports, sidewalks, and even rivers and trails. Even the Internet  
16 can be considered part of the built network. However, the transportation system  
17 is much more than this; it includes both public and private transit services. And it  
18 also includes our feet, wheelchairs, bikes, cars, and all the fuel we buy. It includes  
19 the wider built system outside the Region that connects us to other areas, as well  
20 as a whole slew of support services, from gasoline tankers to road salt suppliers.

21 It is important that we understand our system in its full complexity, context, and  
22 cost as we head into the future. This way, we can adjust to changes and craft a

23 system that has the most access and the fewest negative impacts, all while trying  
24 not to spend more money.

## 25 **B. Regional Transportation Characteristics**

### 26 **Highways**

27 The Region contains several key transportation corridors, including Interstates 89  
28 and 91 as well as several state routes that are utilized for statewide trucking. Of  
29 the state and federal highways in the Region, Interstates 89 and 91 carry the bulk  
30 of traffic (over 10,000 vehicles a day), followed by U.S. Route 4 and U.S. Route 5  
31 (roughly 5,000 to 10,000 vehicles a day). The Region rarely encounters traffic  
32 congestion, even during peak hours. Population growth may exacerbate existing  
33 congestion along U.S. Route 5 in Hartford, VT-10A in Norwich, and the Route 4  
34 corridor during peak hours.

35 Although the [National Scenic Byways<sup>1</sup>](#) program is no longer funded, there remains  
36 three designated [Scenic Byways in the Region<sup>2</sup>](#): the Connecticut River Scenic  
37 Byway, the Crossroad of Vermont (Route 4) Byway, and the Scenic Route 100  
38 Byway. There is also one Vermont Scenic Road designated in the Region, the Route  
39 125 Middlebury Gap Road. The Scenic Road designation places strict development  
40 restrictions on the road corridor to preserve the scenic nature of the road.

41 The Vermont Agency of Transportation ([VTrans](#)) [collects and publishes State](#)  
42 [Highway pavement conditions](#) in our Region. VTrans prioritizes paving based on  
43 their asset management system which looks at implementing the right paving  
44 treatment at the right time of the pavement lifecycle.

45 In addition to the state system, our communities have extensive road networks of  
46 their own (see the Regional Transportation Map). The bulk of residential  
47 development in our towns is located outside of village areas on rural roads, which  
48 increases the need for well-connected roads and road improvements. As more  
49 people move into towns locating on Class 3 and Class 4 roads, additional traffic on  
50 these roads can lead to additional maintenance or costly upgrades to widen the  
51 road or make it a passable school bus route. (Towns are not responsible for  
52 maintaining Class 4 roads, only bridges and culverts.) Highway budgets are  
53 typically the second largest local expenditure after school budgets, averaging  
54 several thousand dollars per mile to plow and maintain, and typically are still  
55 insufficient for maintaining the level of service expected by residents.

56 In 2021, vehicles in Windsor and Orange Counties travelled [more than 1259](#)  
57 [million miles](#)<sup>3</sup>, with almost 50 million gallons of gasoline consumed (estimate  
58 derived from EPA’s evaluation of model 2020 vehicles’ Average Fuel Economy,  
59 which is [25.4 Miles per Gallon \(mpg\)](#)<sup>4</sup>). Much of the travel in our Region is done  
60 using our personal vehicles. While this is convenient for many, it can be expensive,  
61 time consuming and contribute to air pollution. A significant percentage of car-  
62 dependent commuters in Orange and Windsor Counties drive to work alone  
63 (87%), while over ten percent carpool. Around 18 percent of commuters either  
64 walk, bike, or use public transportation.

65 The Regional Plan notes that rural sprawl continues to expand, and commercial  
66 development has taken the form of automobile-dependent strip development  
67 along highways. These land use decisions limit people’s transportation options  
68 while increasing their transportation costs, both in terms of direct costs (e.g., gas

69 and ownership costs) and opportunity costs (e.g., time spent driving instead of  
70 addressing other priorities like family needs). Ultimately, this translates into a  
71 higher overall cost of living for households.

72 TRORC's longstanding priorities are maintaining the existing and diversifying  
73 modes of transportation by expanding bicycling, walking, and transit.

#### 74 **Walking and Biking**

75 Acknowledging the importance of varying transportation choices for people, the  
76 Vermont Legislature passed a Complete Streets law in 2011. This bill requires that  
77 all users be considered in the planning, design, construction, and maintenance of  
78 our roadway system. To learn more about Complete Streets, please refer to  
79 Vermont Department of Health's [Complete Streets: A Guide for Vermont](#)  
80 [Communities](#)<sup>5</sup>.

81 Walking and bicycling infrastructure is an important component of the Region's  
82 goals for sustainable transportation and economic development. Higher use of  
83 these modes will have numerous benefits for the Region, including lower traffic  
84 volumes, lower emissions, and improved public health. However, pedestrians are  
85 hampered where sidewalks are in poor surface condition and lack proper  
86 markings, or with unmarked crosswalks that are hazardous to its intended users.  
87 During winter, many sidewalks disappear underneath the snow or become slick  
88 with ice. Pedestrian crossings at roundabouts, as well as interstate crossings are  
89 poorly signed and unsafe.

90 Marked bike lanes are rare and road shoulders in much of the Region are narrow.  
91 The advent of electrified bicycles (e-bikes), scooters, and other devices has  
92 created transportation opportunities as well as conflicts. People can now bike that  
93 otherwise wouldn't, especially over distance, increasing this mode of  
94 transportation. But, the use of electrified devices, including scooters on  
95 sidewalks, creates hazards for pedestrians.

96 There are additional considerations that can further the Region's goals. Land use  
97 planning that concentrates growth in areas of existing development, particularly  
98 village centers, supports the utility of pedestrian and bicycle infrastructure, and  
99 such amenities in turn improve village life. The Region has also been supportive of  
100 federal and state initiatives that incorporate safe routes programs primarily for  
101 schools in or near the larger Regional Growth Areas. Although national [Safe](#)  
102 [Routes to School](#)<sup>6</sup> funding has been curtailed, TRORC continues to support related  
103 planning work. Lastly, increasing bicycle and pedestrian travel will require  
104 continued community outreach and education. However, bike infrastructure  
105 presents many challenges for towns, such as feasibility studies and construction  
106 costs.

### 107 **Passenger and Freight Rail**

108 The rail industry is an important transportation mode for passenger and freight.  
109 The Amtrak "Vermont" passenger rail (running from St. Albans, VT, to  
110 Washington, DC) is subsidized by Vermont and has stops in Randolph and White  
111 River Junction, traveling on the New England Central Railroad. This rail service is  
112 utilized more for tourism purposes than commuter service. It has benefited from

113 track upgrades in recent years that have shaved off travel time along the corridor  
114 and improved fuel efficiency. In 2022, the White River Junction station had the  
115 third highest ridership out of all 14 stations in Vermont. Unfortunately, the current  
116 passenger train infrastructure is only equipped for travelling short ranges  
117 efficiently.

118 Many residents in the Region would welcome the opportunity to access regional  
119 and local passenger train services in areas closer to home. In 2016, the [Northern](#)  
120 [New England Intercity Rail Initiative \(NNEIRI\)](#)<sup>7</sup> study recommended the expansion  
121 of the existing “Vermont” passenger rail services to connect Boston and New  
122 Haven to Montreal, Quebec. The proposed daily round-trip service would stop at  
123 all existing stations and would require several infrastructure improvements. The  
124 study estimated the projected future ridership from New Haven to Montreal  
125 would be 343,000 riders annually, and from Boston to Montreal would be 103,000  
126 riders per year.

127 VTrans has a [map of railroad corridors](#)<sup>8</sup> in the State, including freight corridors. In  
128 our Region, the White River Junction station serves as a freight rail interchange  
129 point. The Washington County Railroad Company (WACR) line connects from the  
130 New England Central Railroad (NECR) at White River Junction north into Newport.  
131 This train line runs parallel to the Connecticut River within the Region, with twelve  
132 designated stops in the river valley: White River Junction, Wilder, Norwich, Kendall  
133 (Strafford), Thetford, Northboro (Thetford), Ely, Fairlee, Bradford, Hooker  
134 (Bradford), Newbury, and Wells River. Additionally, the towns of Hartford and  
135 Bradford have industrial parks onsite. During times of emergency, VTrans has

136 coordinated with the rail companies to ship needed materials on the Vermonter  
137 passenger rail route.

138 Freight rail complements other transport modes, namely tractor trailers, although  
139 it can serve as a more efficient, economical, and environmentally friendly means  
140 of transportation for heavy and bulky goods. Increases in freight rail service can  
141 only occur if service enhancements are carried out in conjunction with necessary  
142 safety improvements.

### 143 **C. Background Trends and Challenges**

144 The Region has a network of roadways and supporting infrastructure that  
145 emanates from town and village cores, roughly mirroring historical settlement  
146 patterns.

147 Many of our Region's current roadways and bridges date back to the 1970s. With  
148 traffic volumes and vehicle miles traveled continuously increasing, road  
149 infrastructure requires investment. However, significant shortfalls in federal and  
150 state transportation dollars stymie statewide efforts to maintain and improve  
151 roadways and infrastructure. According to the VTrans 2022 Transportation Asset  
152 Management Plan, the funding gap projection for pavements and bridges for the  
153 next ten years is roughly \$451 million. Costly repairs in the wake of flood disasters  
154 have further strained local budgets. Towns have had to increase the resiliency of  
155 their infrastructure at a pace and cost that outstripped local capital budget  
156 planning.

157 **Transportation Impacts**

158 Roads and their runoff, as well as vehicle emissions have a variety of detrimental  
159 effects on recreational activities, wildlife migration, and natural resource  
160 conservation by fragmenting our landscapes. Undersized or poorly placed bridges  
161 and culverts block aquatic and amphibious passage, reducing habitat or  
162 reproduction as well as restricting the flow of water and can inflict road damage  
163 further downstream or downhill.

164 Impervious surfaces; undersized, blocked, or failing culverts; improperly designed  
165 or nonexistent roadway ditches; road salt, brine, and sand usage; and the release  
166 of petroleum and other chemicals into the environment from vehicular travel have  
167 a direct impact on our Region's air and water. Stormwater is a major contributor  
168 to sediment and nutrient loading in the Region. Transportation facilities such as  
169 roads and parking lots create enormous amounts of impervious surface. These  
170 structures generate swift-moving stormwater runoff that carries pollution and  
171 exacerbates flood risk. Evaluating the full effect of existing and proposed  
172 transportation facilities and working to install detention areas or other measures  
173 will reduce both flood peaks and water pollution.

174 Per requirements of Act 64 and the [Vermont Clean Water Act](#)<sup>9</sup>, municipalities are  
175 required to apply for the [Municipal Roads General Permit](#)<sup>10</sup> coverage on all town  
176 roads. The goal is intended to achieve significant reductions in stormwater-related  
177 erosion from municipal roads, paved and unpaved. Each municipality will  
178 implement a customized, multi-year plan to stabilize their road drainage system.  
179 The plan will include updating road drainage systems to meet basic permit



180 standards and other measures to increase infiltration into soil and reduce erosion  
181 to meet a total maximum daily load (TMDL).

182 Our transportation system has a huge energy demand, and consequently an  
183 enormous amount of greenhouse gas emissions as that demand is largely met by  
184 fossil fuels. The Region has been making strides toward reducing its transportation  
185 energy usage, and the use of fossil fuels to supply that energy. Hybrid buses have  
186 been introduced into public transit fleets, and electric school buses have been  
187 acquired. Track upgrades have improved the fuel efficiency of the Amtrak  
188 “Vermont” passenger rail service. Park and ride lots continue to be built and  
189 expanded throughout the Region, and some are outfitted with electric vehicle  
190 charging stations. Some employers offer van services or incentives for carpooling  
191 or public transit to reduce their employees’ single-occupant vehicle trips.

192 Nevertheless, significant changes in our transportation systems are still needed if  
193 the Region is to meet its targets. Meeting the regional target for electric vehicle  
194 fleet growth (mentioned in the Energy chapter) will be a particular challenge; the  
195 Region currently lacks sufficient charging station infrastructure to support  
196 consumers in making the transition. VTrans is working to install charging  
197 infrastructure in state-operated park and rides lots where practicable.

198 In rural, sparsely settled areas, ride sharing allows people to mitigate the cost and  
199 environmental impacts of their commutes. Within the Region, around one in ten  
200 commuters share rides to work. To encourage more people to travel together  
201 (either by ridesharing or using public transit), the Region contains 20 park and  
202 rides. Of these, eleven are supported by municipalities and nine are supported by

203 the State. TRORC evaluates park and ride capacity and has collected regional data  
204 to better understand statewide needs.

205 Driving is an inherently sedentary activity. For most of us, it is the common means  
206 of travel to work, school, activities, shopping, and other routine needs. Heavy  
207 reliance on this mode of travel comes at the expense of physical activity. Land use  
208 patterns that emphasize smart growth principles around compact town and village  
209 centers with pedestrian and bike opportunities promote healthy lifestyles.

### 210 **Equitable Access**

211 As discussed in the Community Health chapter, our Region’s population is aging.  
212 To ensure that the older population has safe access to services, we must prioritize  
213 accessibility. This means having well-lit, functional sidewalks, improving road  
214 signage, having more options for carpooling, and increasing transit opportunities  
215 and adequate broadband service to allow older adults to age in place.

216 Strengthening the Region’s multi-modal transportation networks may also help to  
217 attract and retain younger residents.

218 Transportation equity in our Region’s rural areas can be considerably improved.

219 Those who are under legal driving age, those who cannot afford the costs of  
220 vehicle ownership and maintenance, the disabled, the elderly, and others find it  
221 hard to find safe, affordable transportation options within their towns and  
222 between towns. Ubiquitous public transit would provide such access.

223 Transit access is key to creating healthy communities. People who do not own or  
224 cannot operate a vehicle have limited mobility, constraining their access to goods

225 and services such as high-quality food and medical care. While some towns in the  
226 Region have small numbers of potential transit riders, large percentages of their  
227 populations may be transit dependent. Despite servicing relatively low numbers of  
228 transit riders, smaller towns still exhibit a high need for public transit. However,  
229 the rural character of the Region presents challenges for a traditional public  
230 transit system. Long distances between homes and employment centers strain  
231 commuter bus routes, while high transit dependency in low population density  
232 areas presents a serious challenge for the system. Currently, public transit  
233 provides less than 0.5 percent of the overall population with transport to work.  
234 Despite this adherence to single-occupant automobile travel, the Vermont Agency  
235 of Health and Human Services and the Vermont Agency of Transportation have  
236 extensively studied public transportation usage and all projections indicate  
237 demand for these services will increase.

238 The Region has a few public transportation services which are increasingly  
239 important to its transportation system. Fixed route services to the employment  
240 and commercial centers allow residents to work and shop. Transportation services  
241 for older adults and persons with disabilities give alternatives to people who wish  
242 to live independently but who are less able to drive themselves.

243 The Region depends on two public transportation providers: [Tri-Valley Transit<sup>11</sup>](#)  
244 and [Advance Transit<sup>12</sup>](#). These two agencies are recognized by the State to provide  
245 public transportation services within the Region.

246 Tri-Valley Transit and Advance Transit both operate fixed route commuter buses in  
247 the Region.

248 To connect transit-dependent residents with shopping and social centers, Tri-  
249 Valley Transit offers weekly deviated fixed routes to Lebanon and Randolph,  
250 serving the towns of Hancock, Rochester, Stockbridge, and Bethel. Upon  
251 passenger request, deviations of up to ¾ mile can be made for pick-ups or drop-  
252 offs. Tri-Valley Transit also operates weekday transit circulators in the Randolph  
253 and Bradford areas.

254 Transportation services for older adults and persons with disabilities are a unique  
255 asset to the transportation system and one that operates almost invisibly to most  
256 citizens. These services, funded by Medicaid and the Federal Transit  
257 Administration, offer transportation to eligible individuals for accessing medical  
258 appointments, senior meal sites, adult day programs, and commercial service and  
259 shopping centers. While medical rides typically are a priority, transportation to  
260 shopping and social interaction are also important factors to the quality of aging in  
261 place. The Region’s senior centers and adult day programs provide transportation  
262 for their older adults and persons with disabilities clients both through Tri-Valley  
263 Transit and through their own network of vehicles and volunteer drivers. Although  
264 it appears the Region has redundancy in service areas, there remains a large  
265 percentage of unmet needs and service area gaps. The partnering transportation  
266 groups continue to coordinate services to maximize each provider in addressing  
267 service gaps.

268 Social service providers who work with transit-dependent populations including  
269 older adults, persons with disabilities, and people living below the poverty line  
270 have identified two primary unmet public transport needs. The first is the need for  
271 extended hours of public transit operation. Currently, buses operate generally

272 between 6AM and 7PM. This schedule does not accommodate people who work  
273 evening or night shifts, or seniors who wish to attend social events in the  
274 evenings. The second need is for weekend bus service. Transit buses in the Region  
275 generally operate Monday through Friday; this presents a significant challenge for  
276 those who work on the weekend. Advance Transit recently launched weekend  
277 service for their main routes and have seen significant positive ridership numbers.  
278 In addition to these unmet needs associated with the existing bus service, there is  
279 a need to have a bus service along Route 4 to connect communities in the  
280 Ottawaquechee Valley to the Upper Valley.

281 Private sector intercity bus transportation is provided by Greyhound, which has a  
282 regional service hub in White River Junction. The Greyhound route operates  
283 several daily round-trip runs between Boston, MA, and Montreal, QC, with stops  
284 in White River Junction, Montpelier, and Burlington. In 2014, [Vermont Translines](#)  
285 began operation of an intracity route along Route 4 from Rutland to Lebanon, NH  
286 to Dartmouth Coach. The route has since been discontinued due to low ridership.  
287 In addition to Greyhound, Dartmouth Coach provides service between Hanover,  
288 NH, and Boston, MA, and Boston Logan International Airport with stops in  
289 between at Lebanon and New London, NH. Dartmouth Coach also offers service  
290 between Hanover, NH, and New York City. Supplementing these bus services,  
291 Amtrak offers intercity commuter rail transportation with two stations in the  
292 Region: White River Junction and Randolph.

293 **Housing in Relation to Transportation**

294 Housing availability has pushed residents farther from historical downtowns and  
295 job centers in recent decades, increasing personal vehicular reliance. While  
296 housing in areas outside of town centers may, on the surface, appear more  
297 affordable to residents, increased distance from work, retail, and recreational  
298 opportunities significantly increase costs of living compared with in-town housing.  
299 Average transportation costs in Orange and Windsor Counties are 26 percent of  
300 annual median household income (\$14,233), nearly as much as housing costs (30  
301 percent of annual median household income). For context, transportation costs  
302 are considered affordable if they do not exceed 15 percent of a household’s  
303 annual income. Sprawl doesn’t just hurt household budgets; it also negatively  
304 impacts the economic health of our Region’s villages and community centers. (For  
305 policies related to Housing and transportation, read Homes in the Region  
306 chapter).

307 **Goals, Policies, and Recommendations: Transportation**

308 **Goals**

- 309 1. Our Region’s transportation systems follow [context-sensitive designs](#)<sup>13</sup>  
310 with climate resiliency features, and are consistently funded,  
311 constructed, and well-maintained.
- 312 2. The Region’s transportation system encourages a strong regional  
313 economy.
- 314 3. Public transportation options are diverse and easy to utilize throughout  
315 the Region.

316 4. Single occupancy vehicle dependency is reduced.

317 5. The Region has a safe and broad network for pedestrians and bicyclists.

318 **Policies**

319 1. Future road and parking projects should prioritize improving existing  
320 infrastructure over building new ones, in addition to adding flood  
321 resilient features (i.e. using permeable materials).

322 2. Development that encourages strip development and sprawl are not  
323 consistent with this Plan.

324 3. Public transportation should serve high density development to reduce  
325 single occupancy vehicles.

326 4. New development that generates daily truck traffic in Rural Areas shall  
327 only locate along paved roads immediately adjacent to Regional  
328 Growth Areas (as defined by this Plan), and only if existing  
329 infrastructure is sufficient to maintain traffic safety.

330 5. Development subject to Act 250 shall not result in a degradation of the  
331 [roadway level of service \(LOS\)](#)<sup>14</sup> to D or worse in Rural Areas. If the  
332 impact is LOS C or greater, a traffic study may be required to mitigate  
333 impacts

334 6. Public and private transportation infrastructure investments in  
335 Interchange Areas shall not enable development that will have the

336 effect of eroding the economic vitality and quality of life of Regional  
337 Growth Area.

338 7. New development in Regional Growth Areas subject to Act 250 shall be  
339 designed to connect internal roads and walkways with adjacent lots to  
340 minimize access points with main highways and maximize services that  
341 can be accessed from the same parking areas.

342 8. Developments that have “substantial regional impact” (as defined in  
343 this plan, Chapter 14), whether they are located within the TRORC  
344 Region or in a neighboring region, shall include transportation impact  
345 studies for each phase of development and shall mitigate any impacts  
346 identified as part of their permit.

347 9. Multi-unit housing developers creating more than ten units in a single  
348 project shall make reasonable provisions for sidewalks and/or  
349 connections to sidewalk systems that are present or likely, and  
350 coordinate with public transit agencies on possible stops during site  
351 design for potential transit service access.

352 10. Major highways should minimize barriers to movement of wildlife,  
353 terrestrial or aquatic, especially in high priority wildlife crossings (as  
354 mapped by the Vermont Agency of Natural Resources), through more  
355 wildlife-friendly culverts, bridges, railings, and signage designed to  
356 avoid collisions.



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- 357 11. Developments subject to Act 250 shall demonstrate that they have  
358 taken or will take steps to incorporate electric vehicle charging stations  
359 in parking spots.
- 360 12. Traffic calming projects are encouraged in Regional Growth Areas, and  
361 any place where speed safety concerns exist alongside active  
362 pedestrian and biking activity with vehicles.
- 363 13. Increased paratransit and demand-response transit services  
364 (transportation services without fixed routes, unlike bus routes) for  
365 elders and persons with disabilities are strongly encouraged.
- 366 14. The number and design of park and rides should support regional  
367 public transportation needs.
- 368 15. Strategies reducing total vehicle miles travelled are encouraged such as  
369 employers allowing telecommuting and teleconferencing options.
- 370 16. Town construction projects should accommodate bicyclists and  
371 pedestrians by improving pavement and bike lane conditions such as  
372 adding street trees, signage, pavement plantings, benches, and lighting.
- 373 17. TRORC supports improved rail service along the I-91 corridor and will  
374 assist the State in improving service.
- 375 18. Downtown parking efficiencies should be increased to better utilize  
376 spaces and support businesses. ADA parking also needs to be  
377 increased.

378 19. Public access to noncommercial outdoor recreational opportunities,  
379 such as lakes and hiking trails, should be provided and protected  
380 wherever appropriate.

381 20. Opportunities should be expanded for pedestrian transportation within  
382 our villages and hamlets, with emphasis on promoting safety and  
383 health, such as the inclusion of pedestrian sidewalks or walkways on  
384 bridges.

385 **Recommendations**

386 1. Towns should identify dead-end Class 3 town roads that serve few  
387 structures and consider reclassification to Class 4 to reduce town  
388 expenses.

389 2. TRORC will work with towns during plan and bylaw revisions to connect  
390 housing needs to transportation systems.

391 3. TRORC will work with local highway departments, as requested, to  
392 assist with compliance with the Municipal Roads General Permit to  
393 minimize stormwater runoff, minimize road/river conflicts, and  
394 minimize roadway erosion.

395 4. TRORC will assist the towns in minimizing the use of impervious  
396 surfaces for parking through shared parking, reduced parking  
397 requirements when supported by data, or phased parking development  
398 when demand arises.

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- 399        5.        TRORC will continue to ensure that regional transportation planning  
400                    activities are integrated with land use planning and economic  
401                    development planning efforts.
- 402        6.        TRORC will offer support to towns in capital budgeting for  
403                    transportation facilities and related equipment.
- 404        7.        TRORC will work with towns and Vermont Agency of Transportation to  
405                    identify poor pavement conditions for paving projects.
- 406        8.        TRORC will continue to work with towns to identify and address road  
407                    safety risks through the Vermont Agency of Transportation’s Strategic  
408                    Highway Safety Plan and through town requested Road Safety Audits.
- 409        9.        TRORC shall assist interested communities with studies and planning  
410                    designed to improve multi-modal networks in Regional and Town  
411                    Centers, such as the development of the Upper Valley U.S. Route 4  
412                    commuter bus service.
- 413        10.      TRORC will assist public transit providers in assessing unmet transit  
414                    needs, such as bike storage for riders and better connections to  
415                    destinations. Strategies could include, but are not limited to, improving  
416                    coordination between providers to identify and address underutilized  
417                    capacity of existing services.
- 418        11.      The Transportation Advisory Committee (TAC) shall continue to identify  
419                    park and rides which are in need of state investments and  
420                    improvements.

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421 12. TRORC will work with towns and the Vermont Agency of Transportation  
422 to implement pedestrian and bicycle accommodations (including  
423 transit connectivity) in all its planning, engineering, and construction  
424 related activities. This may include the development of free-standing  
425 Bicycle and Pedestrian Plans.

426 13. TRORC will work with towns to support land use regulations (i.e.  
427 increasing the density and mixed-use development pattern) that  
428 improves walking and bicycling conditions, and also bring parking  
429 regulations into compliance with recent legislation.

430 14. TRORC will continue to support municipal planning for safe routes to  
431 school, especially within densely settled villages or town centers.

432 15. VTrans should take over Route 132 as a state highway.

### 433 *Transportation Endnotes*

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<sup>1</sup> <https://nsbfoundation.com/vermont/>

<sup>2</sup> <https://www.byways.org/explore/states/vt/>

<sup>3</sup> [https://vtrans.vermont.gov/sites/aot/files/documents/VT\\_VMT\\_FC\\_COUNTY\\_2021.pdf](https://vtrans.vermont.gov/sites/aot/files/documents/VT_VMT_FC_COUNTY_2021.pdf)

<sup>4</sup> <https://www.epa.gov/newsreleases/epa-report-us-cars-achieve-record-high-fuel-economy-and-low-emission-levels-companies>

<sup>5</sup>

[https://www.healthvermont.gov/sites/default/files/documents/pdf/HPDP\\_PA%26N%20Complete\\_streets\\_guide\\_for\\_VT\\_communities.pdf](https://www.healthvermont.gov/sites/default/files/documents/pdf/HPDP_PA%26N%20Complete_streets_guide_for_VT_communities.pdf)

<sup>6</sup> <https://www.transportation.gov/mission/health/Safe-Routes-to-School-Programs>

<sup>7</sup> [https://www.mass.gov/files/documents/2018/05/24/NNEIRI\\_StudySummary.pdf](https://www.mass.gov/files/documents/2018/05/24/NNEIRI_StudySummary.pdf)

<sup>8</sup> <https://vtrans.vermont.gov/planning/freight>

<sup>9</sup> <https://dec.vermont.gov/tags/clean-water-act>

<sup>10</sup> <https://dec.vermont.gov/watershed/stormwater/permit-information-applications-fees/municipal-roads-program>

<sup>11</sup> <https://www.trivalleytransit.org/>

<sup>12</sup> <https://advancetransit.com/>

<sup>13</sup> [https://www.fhwa.dot.gov/planning/css/what\\_is\\_css/](https://www.fhwa.dot.gov/planning/css/what_is_css/)

<sup>14</sup> <https://vtrans.vermont.gov/sites/aot/files/highway/documents/publications/LevelOfServicePolicy2007.pdf>