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Regional Plan Committee

September 4, 2024 at 4:00 pm

29 Main Street, Suite 4, Montpelier, VT 05602

To join Zoom meeting:

<https://us02web.zoom.us/j/87815276521?pwd=Mmw5U080SGpCTUFNVHZFSEERQUll0dz09>

Meeting ID: 878 1527 6521, Passcode: 783374

One tap mobile 1(929)436-2866 or 1(301)715-8592

Persons with disabilities who require assistance or alternate arrangements to participate in programs or activities are encouraged to contact Nancy Chartrand at 802-229-0389 or chartrand@cvregion.com at least 3 business days prior to the meeting for which services are requested.

AGENDA

- | | |
|----------------------------|---|
| 4:00 pm² | Adjustments to the Agenda |
| | Public Comment |
| 4:05 pm | Approval of Minutes³ |
| 4:10 pm | TRORC Executive Director Peter Gregory: when to use mandatory vs. advisory language in the Regional Plan |
| 5:00 pm | Transportation Chapter review |
| 5:30 pm | Adjourn |

Next meeting: October 1, 2024

¹ Dial-in telephone numbers are "Toll" numbers. Fees may be charged to the person calling in dependent on their phone service.

² All times are approximate unless otherwise advertised

³ Anticipated action item.

CENTRAL VERMONT REGIONAL PLANNING COMMISSION
Regional Plan Committee

Draft Minutes

August 6, 2024 4:00 – 5:30 pm

29 Main Street, Suite 4, Montpelier, VT 05602

Remote Access Via Zoom

Committee Members:

X	Alice Peal, Waitsfield Alternate Rep
X	Alice Farrell, Barre Town Rep
X	Doug Greason, Waterbury Rep
	Mike Miller, Montpelier Alternate Rep
X	John Brabant, Calais Rep

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Staff: Will Pitkin, Eli Toohey, Niki Sabado (in person)
Zoe Christiansen – East Montpelier Rep.

Adjustment to the Agenda

No adjustments.

Public Comment

Z. Christiansen commented on changes to Open Meeting Law, discussion followed on what committee was required to post on CVRPC’s website and whether meetings should be recorded. A. Peal suggested confirming requirements with C. Meyer.

Approval of Minutes

Staff noted two errors in materials provided to the committee prior to the meeting. 1) the meeting packet contained the June 2024 meeting minutes instead of the July 2024 draft meeting minutes and 2) the July 2024 draft meeting minutes stated that in July 2024, the committee approved the May 2024 meeting minutes; in July 2024, the committee actually approved the June 2024 draft meeting minutes.

D. Greason moved to accept July 2024 draft meeting minutes as amended to note that in July 2024 the committee approved the June 2024 draft meeting minutes, A. Farrell seconded. All in favor, motion carried.

Election of Officers

J. Brabant nominated A. Peal as chair, D. Greason second, all in favor, motion carried. J. Brabant nominated D. Greason as vice-chair, A. Peal seconded, all in favor, motion carried.

Discussion

Committee discussed draft Economy chapter of Regional Plan. Committee wanted to see consistency in citing references and defining acronyms. Staff presented on findings from meeting with Central Vermont Economic Development Corporation, committee discussed how to incorporate feedback from that meeting.

Committee requested that the chapter include discussion on state taxes and their effect on the

1 economy and businesses. Discussed gender pay equality and how to address that issue in the chapter.
2 Discussed who is the audience of the Regional Plan and how to tailor writing to reach desired
3 audience(s). Committee requested a longer intro to the chapter that addressed issues including
4 economic drivers in the region, types of jobs that are available/desired, challenges to the region's
5 economy. .
6
7 Committee reviewed goals and strategies of the draft chapter and suggested edits, including to modify
8 the term "high quality jobs" to something more precise and less pejorative. A Peal shared list of topics
9 that had been discussed in previous committee meetings that remained open issues to discuss further.
10
11 Staff explained the changes to the draft
12 Economy chapter's goals and strategies from the previous Regional Plan to the current draft chapter.
13
14 Committee discussed workflow for upcoming meetings; decided to review Transportation chapter at
15 September meeting and Energy chapter at October and subsequent meeting(s). Committee discussed
16 paths forward to craft Energy chapter and requested comparison of goals and strategies from previous
17 Regional Plan's Energy chapter to draft Energy chapter for 2025 Regional Plan, summary of changes to
18 Energy chapter as required by updates to Vermont statute, shorter draft chapter and summary of what
19 sections of current draft chapter could be moved to appendices. J. Brabant suggested using Quechee
20 Test to inform aesthetic requirements in upcoming Regional Plan. Staff
21
22 D. Greason requested that staff provide the committee a revised timeline of Regional Plan development.
23
24 J. Brabant moved to adjourn, A. Farrell seconded, all in favor, motion carried.



MEMO

Date: August 30, 2024
To: Regional Plan Committee
From: Will Pitkin, Planner
Re: September 2024 Meeting

First, a reminder that the September 2024 **meeting will be on Wednesday, September 4**, not the usual Tuesday. Still 4pm, still CVRPC HQ and Zoom.

Peter Gregory, executive director of Two Rivers-Ottawaquechee Regional Commission, will be joining (in person) to discuss the use of “shall” and other mandatory language vs. “should” and other advisory language in the Regional Plan. We’ve asked him to explain how Two Rivers decides when to use each type of language. Examples of decisions that the language of the Regional Plan influences include Act 250 and Section 248 permit applications; Peter will discuss how the entities that issue those permits consider mandatory vs. advisory language in the Regional Plan when reviewing applications.

For more info on how the Natural Resources Board considers mandatory and advisory language (AKA “guidance language”), please see the attached Natural Resources Board training manual on how to review Act 250’s Criterion 10 (Local Plan and Regional Plan). The relevant section begins at the end of page 3 of that document, which is page 8 of the meeting packet.

Please find attached the Transportation draft chapter of the Regional Plan. It is also attached separately as a Word doc if committee members want to make edits directly in the text. The draft that was distributed on August 15, 2024 had minor formatting issues with several figures that have been fixed in the attached draft; otherwise, it has not changed.

Also attached are lists of the goals and strategies from the current draft chapter and from the Transportation chapter of the 2016 Regional Plan as amended, with an analysis of proposed changes to the previous goals and strategies.

If you have text edits to the Transportation draft chapter, please make them in the attached Word doc with Track Changes on and send them to macmartin@cvregion.com; toohey@cvregion.com; sabado@cvregion.com; pitkin@cvregion.com.

32. Criterion 10 (Local Plan and Regional Plan)

The importance of local planning in the review and approval of developments and subdivisions: "Towns can, and should, control their own futures through comprehensive planning, zoning and subdivision regulations; reliance on Act 250 alone to address development places decisions on a town's future beyond its control." *Re: EPE Realty Corporation and Fergessen Management, Ltd.*, #3W0865-EB, Findings of Fact, Conclusions of Law, and Order at 43 n.10 (Nov. 24, 2004), *cited in Re: Times and Seasons, LLC and Hubert K. Benoit*, #3W0839 -2-EB (Altered), Findings of Fact, Conclusions of Law, and Order at 46 - 47 (Nov. 4, 2005), appeal dktd. (Vt. S. Ct.)

I. Requirements for Issuance of Permit

Criterion 10 requires that a project must be "in conformance with any duly adopted local or regional plan...." 10 V.S.A. §6086(a)(10). *Re: Times and Seasons, LLC and Hubert K. Benoit*, #3W0839 -2-EB (Altered), Findings of Fact, Conclusions of Law, and Order at 58 (Nov. 4, 2005), appeal dktd. (Vt. S. Ct.); *Re: Pike Industries, Inc. and Inez M. Lemieux*, #5R1415-EB, Findings of Fact, Conclusions of Law, and Order at 51 (Jun. 7, 2005); *Re: EPE Realty Corporation and Fergessen Management, Ltd.*, #3W0865-EB, Findings of Fact, Conclusions of Law, and Order at 37 (Nov. 24, 2004)

II. Burden of Proof

The burden of proof is on the applicant who must persuade the Board or district commission that the project complies with Criterion 10. 10 V.S.A. §6088(a); *Re: Pike Industries, Inc. and Inez M. Lemieux*, #5R1415-EB, Findings of Fact, Conclusions of Law, and Order at 51 (Jun. 7, 2005); *Re: John J. Flynn Estate and Keystone Development Corp.* #4C0790-2-EB, Findings of Fact, Conclusions of Law, and Order at 26 (May 4, 2004)

III. Analysis

The project must comply with all applicable local or regional plans. The application of Criterion 10 often raises several questions such as determining which version of the town plan to apply, interpreting whether the language is mandatory and specific, and when to refer to a zoning ordinance to clarify any ambiguities.

A. Which Plan applies?

Town Plan

Time of adoption

The town plan that was in effect as of the time that a complete application is filed applies. *Re: Raymond F. and Lois K. Ross and Rochelle Levy*, #2W0716-EB (11/2/87), *aff'd, In re Raymond F. Ross*, 151 Vt. 54 (1989); and see *Re: Burlington Broadcasters*,

Inc. d/b/a WIZN, Charlotte Volunteer Fire and Rescue, & John Lane, #4C1004R-EB, Memorandum of Decision at 9 (Nov. 25, 2003).

However, a plan which is in the process of being adopted at the time of the application will also apply if the town has noticed a hearing on the plan, and the plan is later adopted within a reasonable time. *Re: Russell Corp. and Crushed Rock Inc., #1R0489-6-EB (Remand)-EB, Findings of Fact, Conclusions of Law, and Order (Jan. 17, 2002) [EB #723], rev'd in part, aff'd on other grounds, In re John A. Russell Corp. and Crushed Rock Inc., 2003 VT 93, ¶¶11 - 15 (V.S.Ct. 2003) (citing 24 VSA §4387(d)).*

At the applicant's request, Town Plan amendments which occur after the application date and which favor an applicant may govern. *Re: Peter S. Tsimortos, #2W1127-EB, Findings of Fact, Conclusions of Law, and Order at 18 (Apr. 13, 2004); Re: Fred and Laura Viens, #5W1410-EB, Memorandum of Decision at 4 - 5 (Sep. 3, 2003).*

Location of project

Where project is located on boundary line of two towns, a town plan cannot be given effect to the part of project outside of town boundaries. *P.F. Partnership and Harlan and Jean Bodette, #9A0169-EB (May 1, 1990), aff'd and remanded, P.F. Partnership, No. 90-276 (V.S.Ct. 1991)*

Regional Plan

The regional plan will apply where a town has not adopted a town plan. *Re: Robert B. & Deborah J. McShinsky, #3W0530-EB, Findings of Fact, Conclusions of Law, and Order (Apr. 21, 1988), aff'd, In re Robert and Deborah McShinsky, 153 Vt. 586 (1990).*

B. Conflict between the Town Plan and Regional Plan

Definition of "conflict"

A conflict exists when one plan allows the project but the other does not. *Re: Peter S. Tsimortos, #2W1127-EB, Findings of Fact, Conclusions of Law, and Order at 24 (Apr. 13, 2004)*

If there is no conflict

When town and regional plans do not conflict, a project will be reviewed for its conformance with both plans. *Re: Green Peak Estates, #8B0314-2-EB, Findings of Fact, Conclusions of Law, and Order (Jul. 22, 1986), aff'd, In re Green Peak Estates, 154 Vt. 363 (1990); Re: Heritage Group, Inc., #4C0730-EB, Findings of Fact,*

Conclusions of Law, and Order (Mar. 27, 1989); *Re: George & Barbara Musbek*, #2W0600-EB, Findings of Fact, Conclusions of Law, and Order (Jan. 13, 1986).

If there is a conflict

Where local and regional plans do conflict, the regional plan is given effect only if it is demonstrated that the project under consideration would have a substantial regional impact. *In re Green Peak Estates*, 154 Vt. 363, 368 (1990); 24 V.S.A. §4348(h)(2); *Re: Times and Seasons, LLC and Hubert K. Benoit*, #3W0839 -2-EB (Altered), Findings of Fact, Conclusions of Law, and Order at 67 n.13 (Nov. 4, 2005), appeal dktd. (Vt. S. Ct.) (but finding no conflict); *Re: John J. Flynn Estate and Keystone Development Corp.* #4C0790-2-EB, Findings of Fact, Conclusions of Law, and Order at 30 (May 4, 2004);

Thus, if a town plan approves a project, it project can only be denied under the regional plan if it has regional impacts. *Re: Peter S. Tsimortos*, #2W1127-EB, Findings of Fact, Conclusions of Law, and Order at 24 (Apr. 13, 2004). There is no case law on the converse situation: when a regional plan approves a project but the town plan dose not. Under this scenario, however, it would seem to be illogical to hold that, if the project has regional impacts it has to be allowed, even in the face of a local plan that would deny it. Thus, a regional plan should be read to trump a town plan only when the town plan allows the project, the regional plan denies the project, and the project has regional impacts

C. How is a Town Plan or Regional Plan interpreted?

Town and Regional Plans are reviewed to determine whether they can provide guidance as to whether a particular project is in conformance with their language. Two separate questions are asked: (1) Is the language in the Plan mandatory or merely a guidance? (2) Are the Plan's provisions specific or ambiguous? *Re: Times and Seasons, LLC and Hubert K. Benoit*, #3W0839 -2-EB (Altered), Findings of Fact, Conclusions of Law, and Order at 58 (Nov. 4, 2005), appeal dktd. (Vt. S. Ct.); *Re: Pike Industries, Inc. and Inez M. Lemieux*, #5R1415-EB, Findings of Fact, Conclusions of Law, and Order at 51 (Jun. 7, 2005); *Re: EPE Realty Corporation and Fergessen Management, Ltd.*, #3W0865-EB, Findings of Fact, Conclusions of Law, and Order at 38 - 40 (Nov. 24, 2004) [EB #838], quoting extensively from *Re: Peter S. Tsimortos*, #2W1127-EB, Findings of Fact, Conclusions of Law, and Order at 18 - 21 (Apr. 13, 2004)

Mandatory language vs. guidance language for Town and Regional Plans

Weak language in a Town Plan cannot serve as a bar to deny a project. See, *Re: The Van Sicklen Limited Partnership*, #4C1013R-EB, Findings of Fact, Conclusions of Law, and Order at 55 (Mar. 8, 2002) (phrases such as “strongly encourages” and

"should focus its efforts to encourage" indicate nonmandatory elements of a town plan); *Re: Green Meadows Center, LLC, The Community Alliance and Southeastern Vermont Community Action, #2W0694-1-EB*, Findings of Fact, Conclusions of Law, and Order at 42 (Dec. 21, 2000) (while words such as "direct," "encourage," "promote," and "review" in Town or Regional Plans may provide guidance in the interpretation of such Plans and may be used to bolster more specific policies in such Plans, they do not, by themselves, constitute a mandate).

Compare, Re: Times and Seasons, LLC and Hubert K. Benoit, #3W0839 -2-EB (Altered), Findings of Fact, Conclusions of Law, and Order at 61 (Nov. 4, 2005), appeal dktd. (Vt. S. Ct.) ("Where feasible, commercial development *shall be located* within or close to South Royalton Village or Royalton Village, re-using existing sites where possible, or in other locations specifically recommended in this plan and its amendments. ... The use of the word "shall" makes the provision mandatory."); *Re: Southwestern Vermont Health Care Corp., #8B0537-EB*, Findings of Fact, Conclusions of Law, and Order at 54 (Feb. 22, 2001) (use of the phrase "shall be protected" in Town Plan is mandatory).

Of course, most town plans and regional plans are not written like zoning bylaws, they do not contain words such as "prohibited" or phrases such as "shall not be allowed." But this does not mean that they are legally meaningless. Town and Regional Plans by their very nature are, as the Board has recognized, *aspirational*. They indicate the direction that a Town or Region wants to take in terms of its development; they often do not set absolute restrictions or prohibitions on development. See *John A. Russell Corporation and Crushed Rock, Inc.*, Land Use Permit Application #1R0489-6, Findings of Fact, Conclusions of Law, and Order (Aug. 19, 1999), *citing, Kalakowski v. John A. Russell Corp.*, 137 Vt. 219, 225 (1979); *Casella Waste Management Inc.*, #8B0301-7-WFP, Findings of Fact, Conclusions of Law, and Order at 41 (May 18, 2000).

But despite the recognition that Town and Regional Plans are "abstract and advisory," Act 250 requires that projects comply with a "local or regional plan," if one exists. 10 V.S.A. §6086(a)(10). The Commissions are therefore "obliged *by the language of the law* itself to give regulatory effect to documents which, because their purposes are otherwise, are often not written in regulatory language." *Re: Times and Seasons, LLC and Hubert K. Benoit, #3W0839 -2-EB* (Altered), Findings of Fact, Conclusions of Law, and Order at 58 (Nov. 4, 2005), appeal dktd. (Vt. S. Ct.); quoting *Re: EPE Realty Corporation and Fergessen Management, Ltd.*, #3W0865-EB, Findings of Fact, Conclusions of Law, and Order at 38 (Nov. 24, 2004)], quoting *Re: Peter S. Tsimortos, #2W1127-EB*, Findings of Fact, Conclusions of Law, and Order at 19 (Apr. 13, 2004).

Specific vs. Ambiguous Provisions in a Town Plan

If a Town Plan's provisions are specific, they are applied to the proposed project without any reference to the zoning regulations.

A provision of a town plan evinces a specific policy if the provision: (a) pertains to the area or district in which the project is located; (b) is intended to guide or proscribe conduct or land use within the area or district in which the project is located; and (c) is sufficiently clear to guide the conduct of an average person, using common sense and understanding. *Re: The Mirkwood Group and Barry Randall, #1R0780-EB, Findings of Fact, Conclusions of Law, and Order at 29 (Aug. 19, 1996).*

If a Town Plan's provisions are ambiguous, the Vermont Supreme Court's decision in *In re Molgano*, 163 Vt. 25 (1994), instructs the Commissions to examine the relevant zoning regulations to attempt to resolve the ambiguity. *And see* 10 V.S.A. §6086(a)(10). This does not mean that a Commission reviews a project for its compliance with the zoning regulations, but rather it sees if there are provisions in the zoning regulations that address the same subject matter that is at issue under the town plan. *Re: Dominic A. Cersosimo and Dominic A. Cersosimo Trustee and Cersosimo Industries, Inc., #2W0813-3 (Revised)-EB, Findings of Fact, Conclusions of Law, and Order at 9 (April 19, 2001); Re: Fair Haven Housing Limited Partnership and McDonald's Corporation, #1R0639-2-EB, Findings of Fact, Conclusions of Law, and Order at 19 (Apr. 16, 1996), aff'd, In re Fair Haven Housing Limited Partnership and McDonald's Corporation, Docket No. 96-228 (Vt. Apr. 23, 1997) (unpublished).*

If zoning bylaws cannot aid in the interpretation of an ambiguous plan, either because they do not exist or are not relevant, then the Commission must attempt to construe the plan as best it can, based on various rules of construction or supporting evidence of municipal legislative intent. *Re: Dominic A. Cersosimo and Dominic A. Cersosimo Trustee and Cersosimo Industries, Inc., #2W0813-3 (Revised)-EB, Findings of Fact, Conclusions of Law, and Order at 11 (Apr. 19, 2001). Re: Bull's Eye Sporting Center and David and Nancy Brooks, #5W0743-2-EB, Findings of Fact, Conclusions of Law, and Order at 20 (Feb. 27, 1997).*

D. Taking evidence as to Criterion 10

While Board may consider arguments from parties concerning whether a particular project conforms with the town or regional plan, the document – the plan – speaks for itself; "the town plan *itself is the evidence*, and the Board must make its independent judgment" about whether a project conforms to a plan. *Re: EPE Realty Corporation and Fergessen Management, Ltd., #3W0865-EB, Findings of Fact, Conclusions of Law, and Order at 40 (Nov. 24, 2004); Re: Peter S. Tsimortos, #2W1127-EB, Findings of Fact, Conclusions of Law, and Order at 20 (Apr. 13, 2004); Re: John J. Flynn Estate and Keystone Development Corp., #4C0790-2-EB,*

Memorandum of Decision at 6 (Oct. 8, 2003), quoting *Re: J. Philip Gerbode*, #6F0396R-EB-1, Findings of Fact, Conclusions of Law, and Order at 17 (Jan 29, 1992)

The statute was amended in 2001 to make it clear that the Board need not consider or be bound by interpretations of the Town Plan, even those of members of the Town Selectboard or Planning Commission:

In making this finding [whether a project is "in conformance with any duly adopted local or regional plan...."], if the board or district commission finds applicable provisions of the town plan to be ambiguous, the board or district commission, for interpretive purposes, shall consider bylaws, but only to the extent that they implement and are consistent with those provisions, and need not consider any other evidence.

10 V.S.A. §6086(a)(10); *Re: Times and Seasons, LLC and Hubert K. Benoit*, #3W0839 -2-EB (Altered), Findings of Fact, Conclusions of Law, and Order at 60 n.7 (Nov. 4, 2005), appeal dktd. (Vt. S. Ct.); *Re: EPE Realty Corporation and Fergessen Management, Ltd.*, #3W0865-EB, Findings of Fact, Conclusions of Law, and Order at 40 (Nov. 24, 2004); *Re: Fred and Laura Viens*, #5W1410-EB, Memorandum of Decision at 7 (Sep. 3, 2003).

Last Revised: October 16, 2006

2025 Plan Goals & Policies/Strategies	
Goal 1: Employ an inclusive, participatory, and sustainable regional transportation planning process.	
Strategy 1.1: Support regular engagement with the CVRPC Transportation Advisory Committee and Road Supervisors' Round Table to identify regional needs and steer planning priorities.	
Strategy 1.2: Coordinate transportation planning at the municipal, regional, State, and private levels.	
Strategy 1.3: Prioritize regional planning goals when evaluating projects.	
Strategy 1.4: Employ open and inclusive participatory processes.	
Strategy 1.5: Provide comments/recommendations regarding impacts of specific land use projects on the regional transportation system during the permitting process.	
Goal 2: Increase the safety of the transportation system for all users.	
Strategy 2.1: Promote participation in Safe Routes programs and provide technical assistance for associated plans.	
Strategy 2.2: Prioritize safety-targeted measures at High or Potential Crash Locations	
Strategy 2.3: Prioritize safety improvement projects that limit conflicts between modes.	
Strategy 2.4: Support projects to provide greater safety for transit riders and operators.	
Strategy 2.5: Publicize rights and protections for vulnerable roadway users.	
Strategy 2.6: Prioritize projects that employ Complete Streets principles.	

2016 Plan Goals & Policies/Strategies		Notes
GOAL 1: To achieve a Regional transportation planning process that is comprehensive, multimodal, and public, and is integrated with Regional and local land use planning as outlined in the Central Vermont Regional Plan.		Language updated for brevity and clarity
1. Encourage municipalities' analysis of transportation needs at the local level, including the relationships between development patterns and transportation needs, and which considers various modes of travel.		Goal 10; Strategy 1.5, Strategy 1.2
2. Encourage coordination and cooperation in comprehensive transportation planning among the various municipalities in the Region and at the Regional, State, and private levels.		Strategy 1.2
3. Undertake a comprehensive Regional analysis of existing and anticipated travel behavior and multi-modal approaches to accommodating anticipated travel demand.		Removed. The value of this policy and macro level modeling is not clear. Most of these behaviors are well understood for a low density/rural region. Additionally, this type of analysis and the associated model is extremely expensive build and requires ongoing maintenance by specialized staff. The region would continue to take smaller scale modeling as part of scoping and feasibility studies.
4. Balance Regional and local decision-making, and flexibility in transportation planning, when conflicts develop between local and State plans.		Strategy 1.2
5. Promote a project prioritization process that takes the goals of the Regional Transportation Plan into consideration.		Strategy 1.3
6. Promote open and inclusive public participation in the multi-modal planning and development of transportation projects.		Strategy 1.4
7. Support the planning and design of the Region's transportation system to encourage development and re-development in existing villages, cities, and designated growth centers.		Revised to more specifically tied to actions. Strategy 2.1, 2.3, 2.4, 2.6, 3.1, 7.5
8. Encourage the full integration of transportation and land use planning at the Regional and local level.		Strategy 1.5, 3.1
GOAL 2: To preserve and maintain the existing transportation system.		Strategy 5.1
1. Support the necessary steps for evaluating, prioritizing, and implementing preventive maintenance programs for all elements of the transportation system.		This is covered under our goals that link directly to land used, resilience, and active transportation among others.
2. Promote a funding strategy that realizes maximum use of all available resources to ensure adequate maintenance of the existing transportation system.		Strategy 5.2 / 1.5
3. Encourage development patterns that reflect the planned capacity of the transportation system. Level of Service C will be taken as the preferred condition. Level of Service D should be accepted within the more urban, built-up sectors of the Region (for example: Montpelier, Barre City, Northeast Berlin, South Barre, Waterbury Village, Northfield Village, Waitsfield Village, and Irasville).		

<p>GOAL 3: Enable the transportation system to operate at its highest efficiency by managing travel demand and encouraging shifts to under-utilized and more efficient travel modes.</p>	<ol style="list-style-type: none"> Develop a strategy that encourages maximum use of all available transportation resources and allocates those resources to the optimum functioning of the transportation system. Support the education of the Region's employers in the development of Travel Demand Management Programs (e.g. tele-commuting, flextime, compressed work weeks, ride-share matching, preferential parking, commuter fringe benefit, etc.). Facilitate the establishment of Transportation Management Associations to organize and administer TDM programs. Educate the public on modal choices available. Encourage preservation of existing rights-of-way for future transportation purposes. In particular, work to retain abandoned railroad rights-of-way for transportation uses such as trails and bike paths. Consider new or expanded public transit services that serve intra-Regional and intercity travel needs. Encourage full accessibility to the Region's transportation services for the Region's residents in need. Establish aggressive, but realistic, targets for modal shares along Regional transportation arteries. Support updating and optimization of traffic signal timings on a regular schedule and coordinate where appropriate. Market public transit to new users. <p>GOAL 4: To integrate modes of travel in order to allow for their most effective use and ultimately reduce dependence on single occupant vehicles.</p> <ol style="list-style-type: none"> Encourage the development of park and ride lots for car and van pools, and encourage employers to provide incentives to car and van pool users.
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<p>Removed. Overly vague. Many other revised goals and policies speak to efficient use of resources in more actionable terms.</p>	<p>Strategy 6.5 / 6.6</p> <p>Strategy 6.4</p> <p>Strategy 11.1</p> <p>Strategy 6.2. Funding is fairly hemmed in by Vtrans on how and where transit is provided. While CVRPC can study and make recommendations for transit services (similarly to our ongoing work to support TOD). However, we should be careful to ensure our actions reflect authority to effect change.</p> <p>Strategy 6.1 / 6.3</p>	<p>In the absence of dedicated hard infrastructure, arterials are high-stress facilities for vulnerable users. Realistic mode share for functional trips, in the absence of protected/separated facilities, is a fraction of a percent. Where opportunity exists (e.g., villages on state routes) other strategies around complete streets provides for the intent of this strategy.</p> <p>Strategy 5.3 / RPC involvement would be limited to perhaps funding/administering a timing study or an Intelligent Transpo System study. Maintenance obligations fall to the owner of the asset. Adjusting timings or actuation delay is a decision undertaken and overseen by the equipment owner (most likely Vtrans or a major town) generally in response to changed conditions. GMT and other operators principally market their services. CVRPC reposts as a partner. We also participate in TDM initiatives that include transit as included in other strategies.</p> <p>Strategy 9.4</p>
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<p>Goal 3: Mitigate the impacts of the transportation system on the environment and climate and plan for the impacts of climate change on the transportation system.</p>	<p>Strategy 3.1: Support planning efforts that adhere to smart growth principles.</p> <p>Strategy 3.2: Prioritize the development of active transportation networks for functional trips including work commutes and shopping.</p>	<p>Strategy 3.3: Require Enable municipalities to consider the relationships between development patterns and transportation demand in their local planning and permitting through technical assistance.</p> <p>Strategy 3.4: Support efforts to adopt alternative fuels for municipal vehicles.</p>	<p>Strategy 3.5: Factor long-term direct and indirect costs and benefits into decision-making. Impacts that are not easily expressed in dollar values should also be considered.</p> <p>Strategy 3.6: Assist efforts to site new EV charging infrastructure.</p>	<p>Strategy 3.7: Assist municipalities in planning for retirement of infrastructure rendered non-viable by climate change.</p>	<p>Goal 4: Increase the resilience of the transportation system for motorized and non-motorized users.</p>	<p>Strategy 4.1: Plan for the provision of essential transportation during natural disasters.</p> <p>Strategy 4.2: Leverage the AOT Transportation Resilience Planning Tool to identify and mitigate hazards caused by vulnerable roadways to neighborhoods and users.</p>	<p>Goal 5: Maintain and maximize the performance of the existing network for people and freight.</p>
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Strategy 5.1: Provide technical assistance for evaluating, prioritizing, and implementing preventive maintenance programs for all elements of the transportation system.

Strategy 5.2: Target levels of service (LOS) appropriate to local context: LOS C as preferred minimum, LOS D acceptable in built up settlements

Strategy 5.3: Provide technical assistance to municipalities to optimize traffic operations

Strategy 5.4: Promote physical and operational connections between various modes of transportation and prioritize projects that integrate various modes.

Strategy 5.5: Encourage access management policies that improve safety, reduce traffic congestion, and maintain capital investment.

Strategy 5.6: Conduct intersection studies when merited by safety or capacity issues.

Goal 6: Facilitate the development of a transportation system that provides access for all.

Strategy 6.1: Assist in planning for all segments of the population to have access to a full range of goods, services, and activities.

Strategy 6.2: Assist transit providers in determining equitable distributions of transit service

Strategy 6.3: Facilitate full access to the Region's transportation services for the Region's disabled and elderly.

Strategy 6.4: Engage and educate the public on modal choices and related infrastructure.

Strategy 6.5: Provide technical assistance to the Region's employers in the development of Travel Demand Management Programs (e.g. telecommuting, flextime, compressed work weeks, rideshare matching, preferential parking, commuter fringe benefit, etc.).

Strategy 6.6: Facilitate the establishment of Transportation Management Associations to organize and administer TDM Programs.

Goal 7: Promote positive health outcomes by coordinating land use and transportation planning to favor active transportation in new development and redevelopment efforts.

Strategy 7.1: Assist communities working to comply with Vermont Act 34 (Complete Streets)

Strategy 7.2: Provide technical assistance and grant support for projects to increase active transport mode share

Strategy 7.3: Lead safety assessment and improvement projects for active transport

Strategy 8.3

Strategy 6.1 / 6.3

Removed: It is unclear how this strategy would be manifested. Perhaps a more specific strategy could be proposed.

Strategy 5.4

Goal 3

Strategy 10.4 / 11.2

Goal 3 / Goal 7

Strategy 3.5

Removed. This strategy seems dated. Perhaps a more targeted strategy for our time could be recommended.

Goal 3 / Goal 7

Strategy 3.1 / 7.1

Overly vague. The could be used to argue for cul-de-sac subdivisions. Proposed strategies around smartgrowth incorporate the intent of this strategy.

Strategy 2.2 / 5.6 / 7.3

Strategy 2.3 / 7.3

Strategy 5.5

2. Promote physical and operational connections between various modes of transportation.

3. Ensure adequate mobility for all segments of the population, including residents who cannot or do not use private automobiles.

4. Foster a sense of mutual respect among users of the various modes of transportation.

5. Encourage the availability of multiple options for the movement of people and goods.

GOAL 5: To establish a transportation system that minimizes consumption of resources and maximizes the protection of the environment.

1. Support efforts to minimize negative environmental impacts associated with the transportation system (including air quality, noise levels, surface water, vegetation, agricultural land, fragile areas, and historical/archaeological sites).
2. Encourage the preservation and enhancement of scenic views and corridors.
3. Support efforts to minimize energy consumption, especially nonrenewable energy resources, and explore expanded use of alternative fuels.
4. Factor direct and indirect costs and benefits into decision-making. Impacts that are not easily expressed in dollar values should also be considered.
5. Promote public awareness of the environmental impacts resulting from use of the Region's transportation system.
6. Promote a transportation system that encourages concentrated development, allows greater access to residences, employment, and services, and facilitates carpooling, bus and rail service, and non-motorized travel.

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

1. Encourage the appropriate scale and design of streets, highways, and other transportation infrastructure to serve local traffic, destination traffic, and through traffic.
2. Foster a neighborhood street system characterized by a network of interconnected streets that minimizes through traffic in residential neighborhoods.
3. Promote safety-targeted measures at High or Potential Accident Locations and promote traffic safety Region-wide.
4. Promote projects that limit the conflicts between the motor vehicle traffic stream, pedestrians, and the rail system.
5. Encourage access management policies that reduce traffic congestion and maintain capital investment.

- 6. Consider new facilities when demand warrants (e.g. when alternatives to reduce congestion and improve safety have been attempted) and/or when other strategic state, Regional, or local goals apply.
 - 7. Foster a sense of safety and comfort for riders of public transit.
- GOAL 7: Promote a transportation system design that strives for aesthetic and functional characteristics that improve the quality of life.**
- 1. Support the design of visually attractive and durable infrastructure such as roadways, pathways, and bridges.
 - 2. Support high architectural standards for terminal buildings, stations, shelters, garages, and other facilities.
 - 3. Respect and enhance the built environment by restoration of period transportation structures where possible, and maintain the natural environment through architectural, landscaped, and engineered features.
 - 4. Encourage traffic calming efforts to minimize conflicts between traffic and surrounding neighborhoods.
 - 5. When feasible, encourage restoration or preservation of historic bridges.
 - 6. Foster improvements that are contextually appropriate.

- GOAL 8: To promote a Regional transportation system that preserves and enhances residential and economic development potential in growth areas.**
- 1. Provide transportation system improvements at locations where they will or can serve growth areas.
 - 2. Foster transportation and commerce links that contribute to the economic health of the Region.
 - 3. Encourage transportation system improvements that renew and improve downtowns, growth areas, and neighborhoods.

- GOAL 9: To promote a Regional public transportation system.**
- 1. Provide for basic mobility for transit-dependent persons.
 - 2. Support public transit that provides access to employment.

Goal 5

Strategy 2.4

Strategy 10.2

Strategy 10.2

Strategy 10.3

See strategies around complete streets and demonstration projects. Also see goal 10 and strategy 5.2.

Strategy 10.3

Also see goal 10 and strategy 5.2.

Strategy 9.1

Strategy 9.2 / 9.5

Strategy 9.3

Much of this goal is integrated into Goal 6 and its strategies.

Strategy 6.1 / 6.3

Strategy 8.2. However, transit usually only achieves these ends along a trunk line. Employer TDM/TMA/Vanpooling is maybe viable (Strategy 6.5 /6.6).

Strategy 7.4: Provide training on benefits of collocating residential uses with traveler destinations

Strategy 7.5: Assist municipalities with code language to create built environments hospitable to active transport

Goal 8: Promote greater access for all users.

Strategy 8.1: Facilitate the expansion of connections to the rest of Vermont, the US and the World via scale-appropriate modes.

Strategy 8.2: Assist in planning public transit that advances economic development, including employment, medical services, shopping, and tourist areas.

Strategy 8.3: Prioritize intermodal projects for people and freight.

Strategy 8.4: Rural Shared Transit Options?(e.g. transportation hubs with basic amenities).

Goal 9: Leverage transportation investments to increase Vermont's economic vitality and support planned growth areas.

Strategy 9.1: Provide grant-writing assistance and letters of support for transportation system improvements at locations where they will or can serve centers of activity.

Strategy 9.2: Plan for transportation policies and projects that contribute to the economic health of the Region.

Strategy 9.3: Prioritize transportation system improvements that renew and improve downtowns, centers of activity, and neighborhoods.

Strategy 9.4: Provide technical assistance in the development of park and ride lots for ridesharing and public transit use and encourage employers to provide incentives to rideshare.

Strategy 9.5: Evaluate proposed investments in the freight network to support local manufacturing and commerce.

Goal 10: Protect and enhance cultural resources, prioritize aesthetically- and contextually-sensitive highway system design, and promote development patterns that support the land use goals of the regional plan that improves the quality of life and supports healthy communities.

Strategy 10.1: Require the full integration of transportation and land use planning at the regional and local levels as a condition of support for town plans and grant applications

Strategy 10.2: Provide technical assistance and support with grant applications for efforts to create livable, aesthetically pleasing infrastructure and healthy communities.

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

Tourism - Strategy 11.5. More broadly, Goal 5. However, recurring daily congestion is not currently a problem in the region, and there is ample slack in the network under normal conditions. Episodic congestion is real, but the impact transit can have on it is limited in a region with Central VT's level of dispersion.

Strategy 10.3: Advocate for restoring or preserving historic bridges when viable.

Strategy 10.4: Advocate for preserving and enhancing scenic views and corridors.

Goal 11: Develop a transportation network that facilitates tourism and recreation.

Strategy 11.1: Advocate for the preservation of existing rights-of-way for future transportation purposes, such as Class 4 Roads and Legal Trails. Work to retain abandoned railroad rights-of-way for transportation uses such as trails and bike paths.

Strategy 11.2: Provide technical assistance and support with grant applications to regional scenic byways groups.

Strategy 11.3: Work with partners to develop regional and statewide recreational assets such as the Cross Vermont Trail or the Lamoille Valley Rail Trail.

Strategy 11.4: Advocate for the maintenance of visitor centers while exploring broader use of the public-private partnership model of travel services.

Strategy 11.5: Support the planning and operation of seasonal shuttle routes to mitigate localized episodic tourist-generated congestion.

Transportation

Provide an integrated regional transportation system that provides safe and reliable access for all Central Vermonters while promoting health and reducing the climate impacts of travel behaviors.

Introduction

The Central Vermont transportation system provides access to jobs, homes, recreation, commerce, and entertainment, with links to regional, statewide, national, and international networks and destinations. There is little in the daily lives of Central Vermonters that is not reliant on some form of transportation. The collection of highways, roads, trails, sidewalks, bus routes, that make up the local transportation network enables our way of life. Additionally, our region is globally connected via Knapp State Airport (MPV) locally, Burlington International (BTV) in neighboring Chittenden County, two Amtrak stations, and an active freight rail main line with an active spur serving Barre.

The Central Vermont transportation system largely functions as intended, though with room for improvement in many areas, as detailed below. For example, the Region generally experiences low traffic congestion, but commuters tend to drive long distances in single-occupancy vehicles and many residents do not feel safe using active modes of transportation on existing roads. This plan discusses existing and proposed initiatives to improve on those shortcomings, along with considerations of funding and implementation.

Maintaining the parts of the transportation system that function well has always been expensive and complex, and climate change is projected to worsen those challenges. Much of the Region's critical transportation infrastructure is already vulnerable to flooding and will become more so as flood frequency and severity increase. Increased road repairs, interruptions to commuting and freight, and isolation of rural communities are some ways that climate change's effects on transportation will impact Central Vermonters – especially the Region's frontline communities – as discussed further in the Climate chapter. Where possible, federal, state, and local agencies should invest up-front in transportation resilience to save money later and help ensure the continued function of the transportation system that we all rely on.

Goals

1. Employ an inclusive, participatory, and sustainable regional transportation **planning** process.
2. Increase the **safety** of the transportation system for all users.
3. Mitigate the impacts of the transportation system on the **environment and climate** and plan for the impacts of climate change on the transportation system.

4. Increase the **resilience** of the transportation system for motorized and non-motorized users.
5. **Maintain** and maximize the performance of the existing network for people and freight.
6. Facilitate the development of a transportation system that provides **access for all**.
7. Promote **positive health outcomes** by coordinating land use and transportation planning to favor active transportation in new development and redevelopment efforts.
8. Promote **connectivity between modes** for all users.
9. Leverage transportation investments to increase Vermont’s **economic vitality** and support planned growth areas.
10. Protect and enhance **cultural resources**, prioritize aesthetically- and contextually-sensitive highway system design, and promote development patterns that support the **land use goals** of the regional plan that improves the quality of life and supports healthy communities.
11. Develop a transportation network that facilitates **tourism and recreation**.

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1: The System

1.1: Coordination with Other Partners (Federal/State/Municipal/Regional)

The CVRPC regional plan focuses on transportation issues that are regional in scope or that have regional implications but recognizes the importance of collaboration between different scales of planning – federal, state, and municipal – and across regions. The transportation element of the regional plan is consistent with the Vermont Agency of Transportation (AOT) Transportation Planning Initiative (TPI)’s goal to establish transportation planning as an ongoing process.

Additionally, the Regional Transportation Element is consistent with the following objectives of the federal transportation law: safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays.

1.2: Roadway Classification – Function and Jurisdiction

Roads in the Region are classified either by function (long-distance mobility vs. access to adjacent land) or by jurisdiction (which government entity owns the facilities and is responsible for their operations and maintenance). The two classification systems are related – larger roads tend to be under the jurisdiction of larger government entities – and both ways of classifying roads are important considerations in transportation planning.

In Vermont, roads are owned and maintained either by the State of Vermont or the municipality in which they are located. Local roads make up most of the road network in terms of road miles, while State roads are generally larger facilities that carry the most traffic. The Federal-Aid Highway Program provides funds for State roads but not for local roads. Figure 1 shows the region's roadways classified according to the federal system.

Sidebox: Functional Classification and the Federal-Aid Highway Program

The Federal Highway Administration (FHWA) employs a seven tier Federal Functional Classification (Functional Class) system for distinguishing types of roads: 1) interstate highways; 2) other limited access expressways; 3) other principal arterials; 4) minor arterials; 5) major collectors; and 6) minor collectors; and 7) local roads. The classification system is organized as a hierarchy of roadway facilities, based on the degree to which the facility prioritizes mobility (higher speeds) or access to adjacent land uses. Interstate highways and expressways, at the top of the hierarchy, are devoted exclusively to mobility, with very limited access to adjacent land. Arterials and collectors provide both mobility and access. The remainder of roads and streets are part of the local road system and are devoted exclusively to providing local access, with limited capacity and relatively slow speeds. Vermont town highway classes 1, 2, and 3 correspond approximately to the federal classifications of arterial, collector, and local respectively.

The Federal-Aid Highway Program provides funds for the construction, maintenance, and operations of highways, arterials, and some collectors. The Vermont Agency of Transportation (AOT) is responsible for constructing, maintaining, and operating all state-owned routes while municipalities are responsible for town highways and local roads. The one exception to this rule is that the State retains responsibility for striping and resurfacing Class 1 town highways.

Figure 1: Federal Class by AADT 2019 (Source: HPMS 2019)

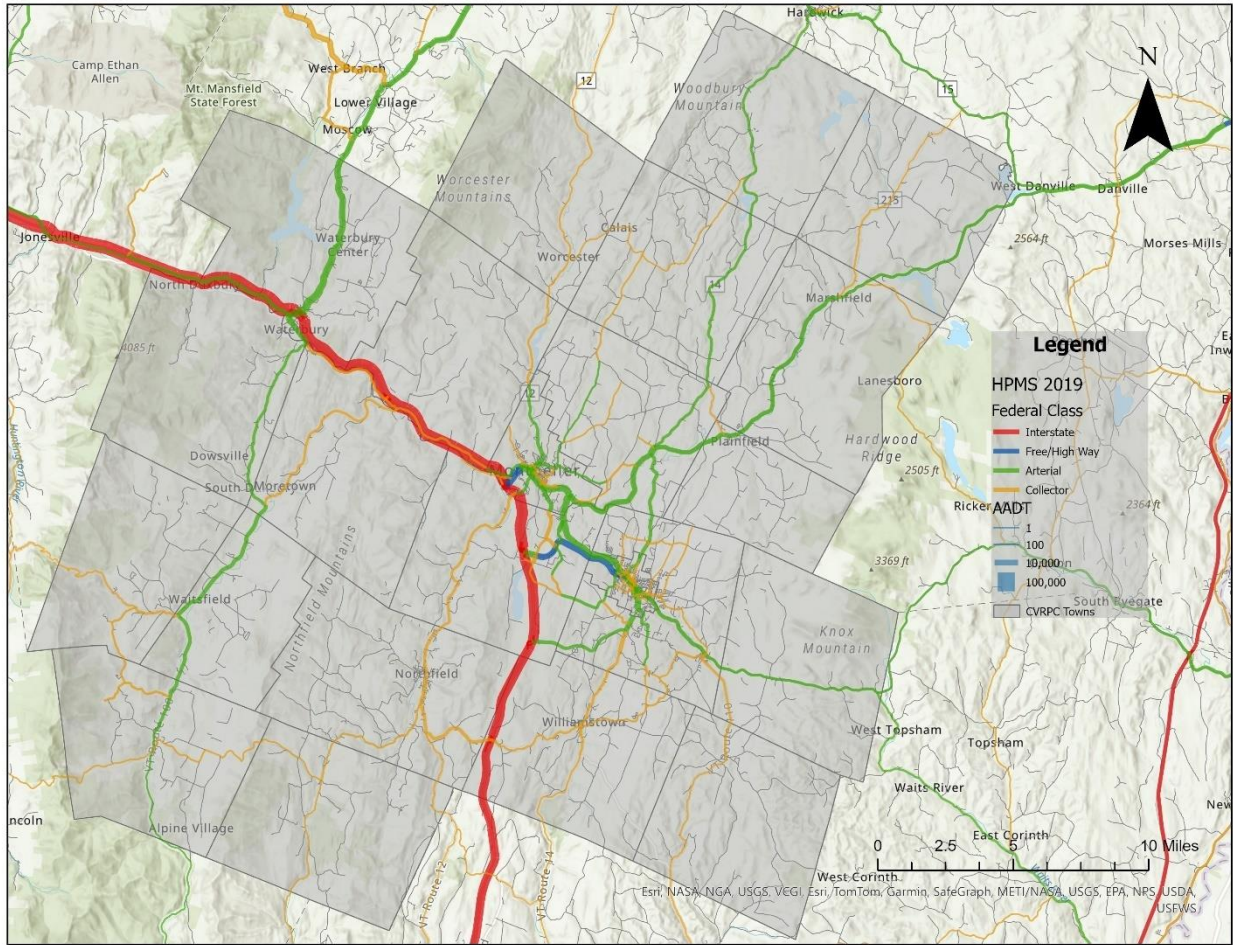


Figure 2: Average Annual Daily Traffic by Federal Class by Year

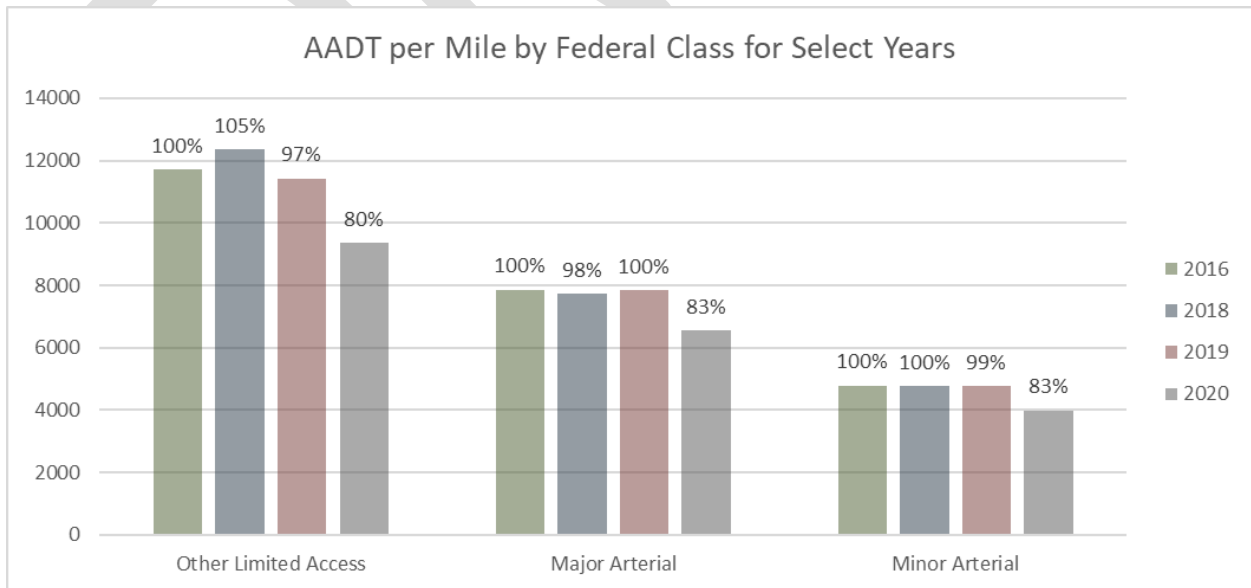


Figure 2 shows trends in travel volumes by federal class for the years 2016 through 2020, with 2017 excluded due to a discrepancy in classification in the data that made it unsuitable for use in this analysis. The percent data labels show the percent of the 2016 base year demand represented by the bar. We can see that prior to the pandemic travel demand was essentially flat, with a drop of roughly 20% due to COVID. While we know that there has been a rebound in demand since the lifting of restrictions, there are currently no reliable public datasets with which to begin analyzing post-pandemic travel behaviors. Federal Aid Highway funding is available for projects on roads other than functional class 7 and can ease financial constraints to implementation, but projects must follow federal design standards to be eligible for funding. With federal design standards tending to favor throughput over other considerations conflicts can arise when the roads that most need federal funding are the Main Streets of the Region's towns and villages. The rigidity of federal design standards can play a big role in the livability of our existing development. Transportation finance decision should recognize the tradeoffs that may be required to obtain federal funding versus potential public realm impacts on local communities.

2: Climate Impacts and Vehicle Emissions

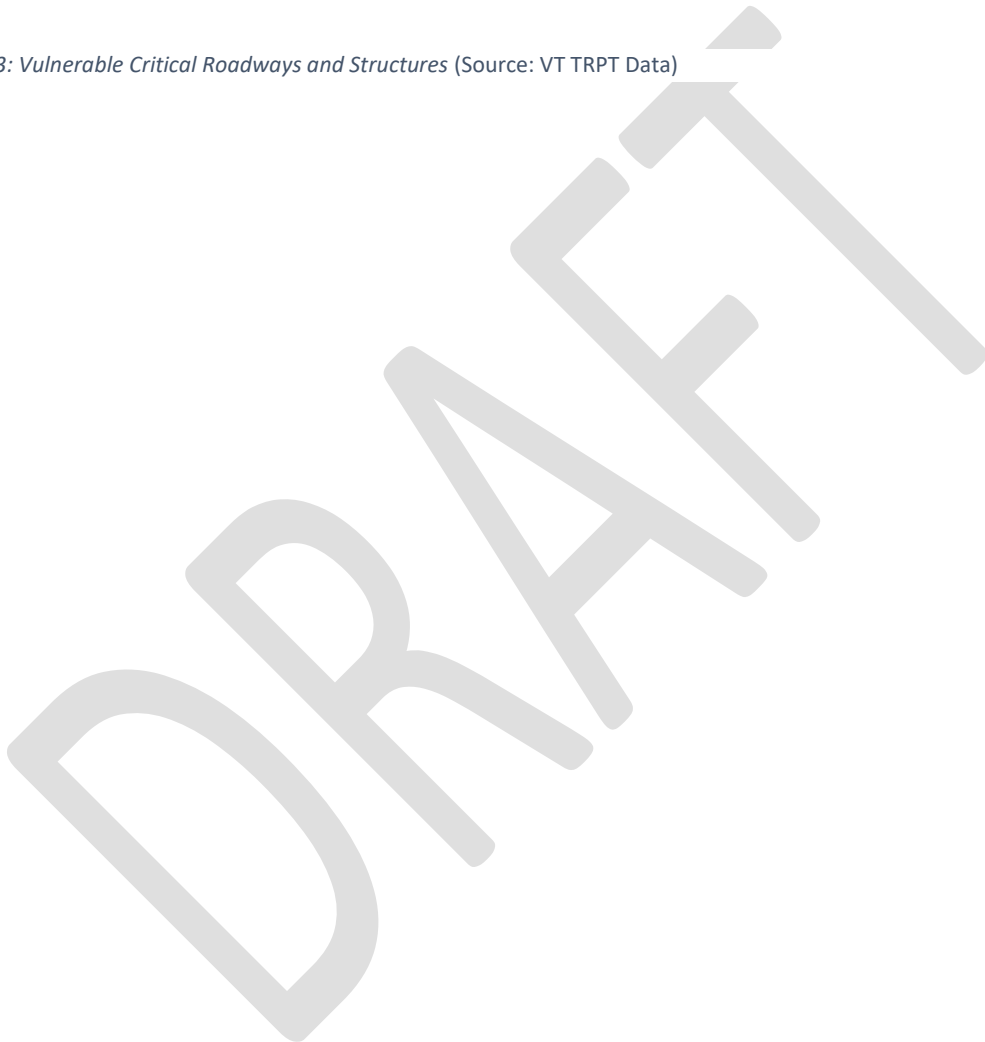
The Region's critical transportation infrastructure is already vulnerable to flooding and will require significant investments in maintenance and/or upgrades as flooding increases due to climate change. Figure 3 shows roads and structures classified by vulnerability to 50-year flood and criticality (a measure of network access provided), structures represented on the map score above 5 on both measures. Note that there are no roads in the region scoring high on criticality while scoring low on vulnerability; this is a result of historical development patterns responding to the constraints imposed by the topography of the region that led to settlements and major thoroughfares being located on the flat ground adjacent to watercourses.

If repeated replacement or repair of a facility or settlement is determined to be unsustainable, consideration will need to be given to retiring and relocating right of way (ROW). CVRPC recognizes that the costs of ROW acquisition and road building coupled with the potential for eminent domain issues to arise in pursuit of relocating roads is likely to preclude the possibility of such action short of a crisis that forecloses all other options.

Sidebox: The Vermont Agency of Transportation developed the Vermont Transportation Resilience Planning Tool (TRPT), a free and easy-to-use tool for planners "that identifies bridges, culverts, and road embankments that are vulnerable to damage from floods, estimates risk based on the vulnerability, and criticality of roadway segments, and identifies potential mitigation measures based on the factors driving the vulnerability." A brief introduction is at <https://vtrans.vermont.gov/climate/trpt> and the tool is at <https://roadfloodresilience.vermont.gov/#/map>

Figure 4 shows changes in emissions for Criteria Air Pollutants (CAP) and Greenhouse Gases (GHG) from 2008 through 2020, indexed to 2008. As with AADT, a pandemic-driven decline in GHG is seen in 2020 from a roughly flat trend for the prior 12 years. Over the same period CAP volumes have declined drastically due to improved emissions after-treatments¹. Reliable numbers for more recent years are not currently available, though it is known that there has been a rebound in trip-making and overall travel from the pandemic-driven decline in 2020.

Figure 3: Vulnerable Critical Roadways and Structures (Source: VT TRPT Data)



¹ (Winkler, 2018)

Figure 4: Change in Emissions Over Time (Source NEI Data)

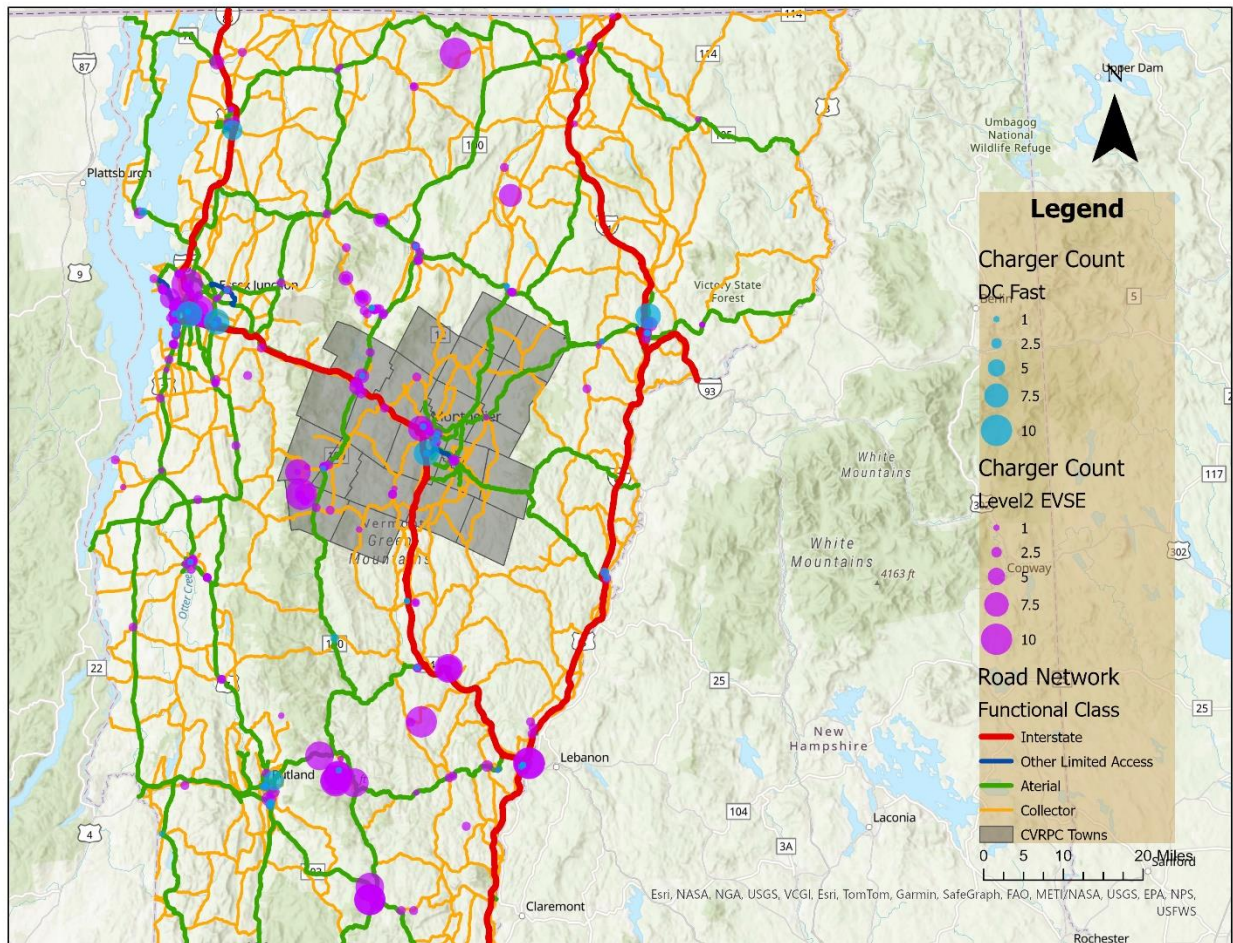


2.1: Electric Vehicles

While electric vehicles (EVs) hold the promise of reducing tailpipe emissions from transport sources, they come with a few caveats. The degree of emissions benefits from EVs is contingent on the feedstock mix of the electricity used to charge them. Relatedly, EV adoption rates will continue to be driven by the real and perceived viability of EVs and the availability of charging infrastructure.

Figure 5 shows the locations, numbers, and types of charge points in CVRPC and adjacent regions. While rebates and tax incentives can sway the financial logic of EV purchase, ready access to charging infrastructure will be needed to convince many drivers to choose electric – no one has yet successfully retrieved a jerry can of electricity after forgetting to charge at home. The proliferation of rapid charging infrastructure will require upgrades to the electrical grid. The lowest-hanging fruit for improving the generation mix, rooftop photovoltaics (PV), will require service, line, and substation upgrades to accommodate expanded net-metering. The increased weight of electric vehicles will also need to be considered in planning and budgeting for roadway maintenance, especially unpaved roads where higher axle weights will increasingly impede traversability during storms and thaws.

Figure 5: EV Charger Locations



The lowest-carbon modes will always be active modes, including electric-assist bikes (electrocycles or e-bikes). Given the long lead time for full turnover of the residential fleet, it is recommended that a regional trail network paralleling the arterial network be developed to provide safe, conflict-free routes for travelers using active and electric micro-mobility modes. At the same time, towns should be leading on the issue by preferentially buying electric when purchasing vehicles for their municipal fleets.

3: Commute Patterns

Commuting in Central Vermont is facilitated by convenient access to I-89, Route 2, Route 100/100B, and a diverse network of minor arterials. This network supports intra- and inter- regional travel.

3.1: Central Vermont Residents

Figure 6 shows the work locations to which CVRPC residents commuted between 2015 and 2019. Employment location is strongly correlated to settlement size and density (themselves colinear), and commute distance.

Figure 6: Workplaces of CVRPC Residents (Source: LEHD 2015 - 2019)

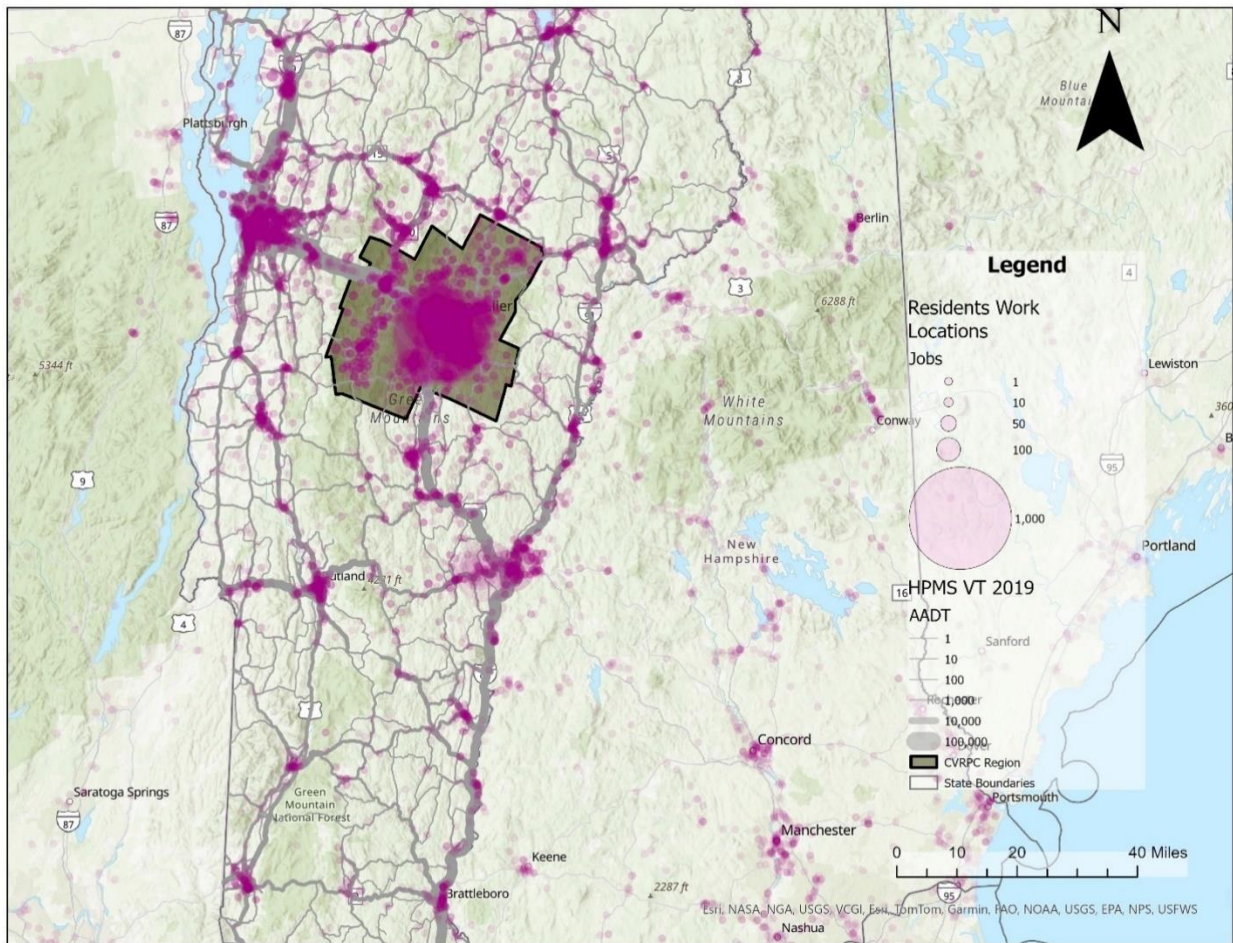


Figure 7: CVRPC Resident Travel Time to Work (Source: CTPP, 2012-2016 ACS 5-Year Estimates)

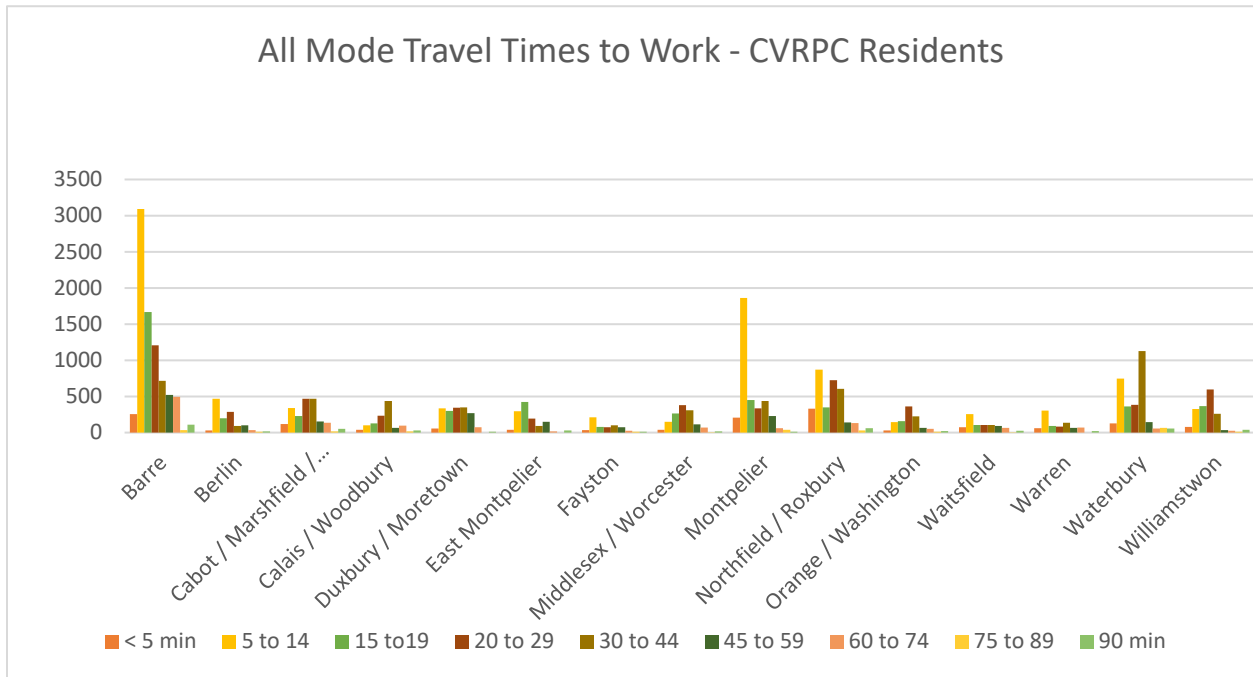


Figure 7 shows the commute times for CVRPC residents by 2010 Census Tract from the most recent Census Transportation Planning Products (CTPP) based on 2012 – 2016 American Community Survey (ACS) data. Tract-level is the finest geography available from the CTPP, though, unfortunately, it aggregates multiple towns into single tracts (eg – Cabot/Marshfield/Plainfield or Northfield/Roxbury). Employment centers (Barre, Montpelier, Berlin, Northfield) had shorter average commutes with a higher percentage of residents with short commutes, while smaller settlements with fewer employment opportunities had longer average commutes with a lower percentage of residents with short commutes.

3.2: Central Vermont Workforce

Figure 8 shows the home locations of persons employed in Central Vermont. Compared to the workplaces of Central Vermont residents, the home locations of the Central Vermont workforce show markedly more dispersion. This is consistent with the difference between the Region's predominantly residential development pattern (large lot, low density) and the tendency of commercial activity to concentrate in village and town centers. This pattern is also consistent with the Region's employment centers drawing employees from neighboring regions.

Figure 8: Home Locations of CVRPC Workforce (Source: LEHD 2015 - 2019)

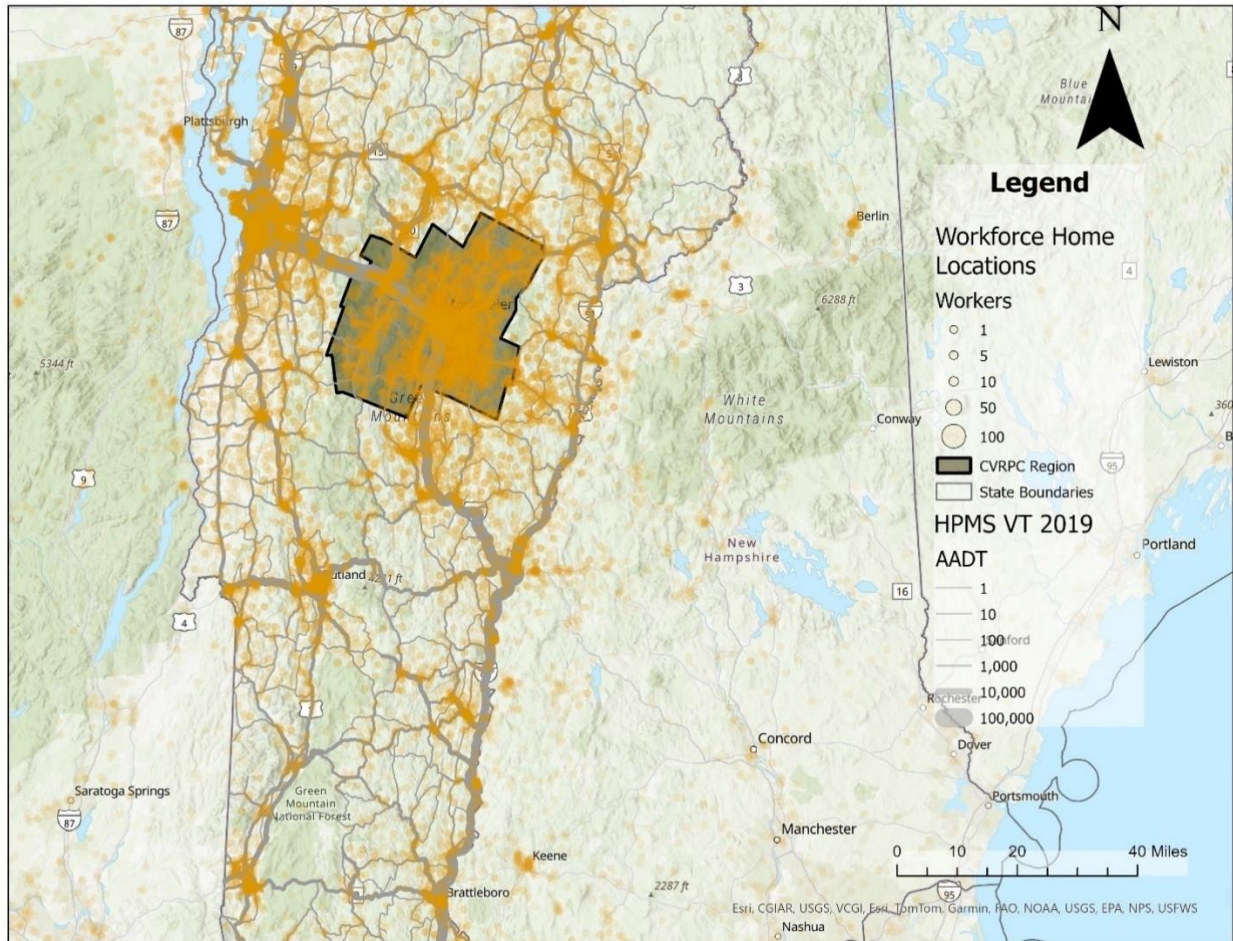
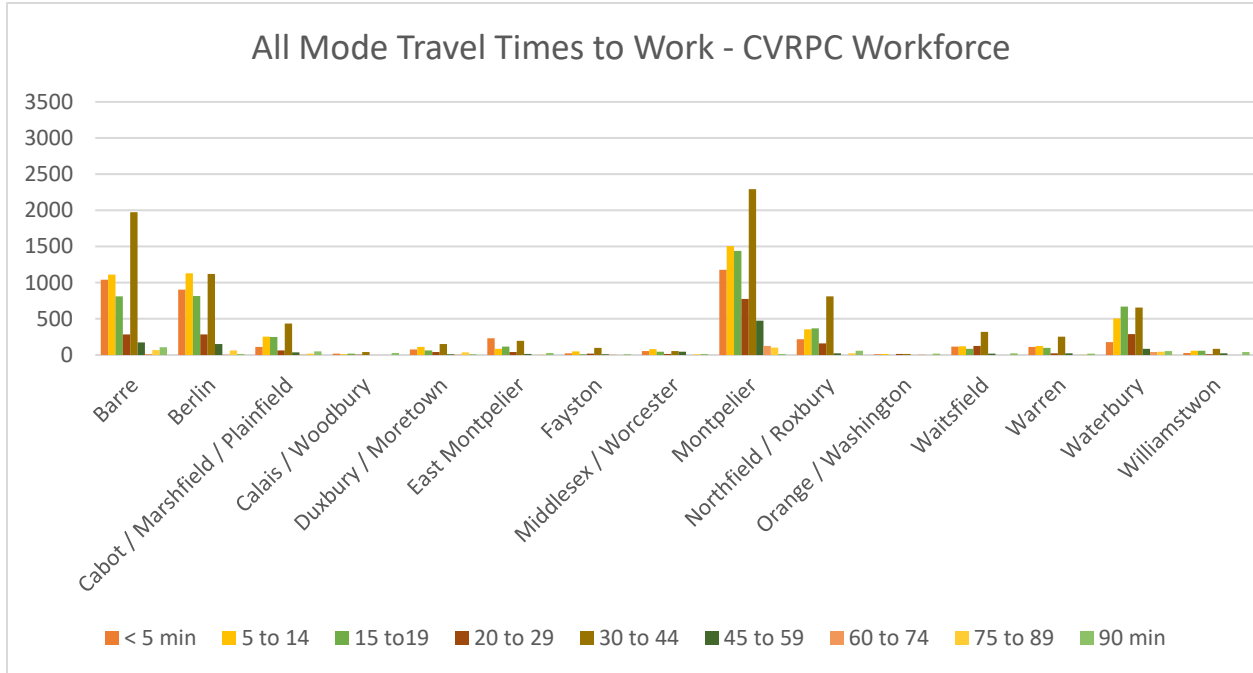


Figure 9 shows the distribution of travel times to work, by census tract of employment, for workers employed in the Region. In it we see further evidence of this extra-regional draw effect in the prevalence of commute trips between 30 and 44 minutes – particularly to Barre, Berlin, Montpelier, Northfield, and Waterbury – as compared to the commute time distributions for CVRPC residents found in Figure 7. The quantity of workers commuting from outside the Region supports the assertion that there is a shortage housing – especially affordable housing – in Central Vermont (as discussed in the Housing chapter) and that developing more housing near the Region's employment centers would, among other benefits, reduce commute time.

Figure 9: CVRPC Workforce Travel Time to Work (Source: CTPP, 2012-2016 ACS 5-Year Estimates)



3.3: Mode of Transportation

Figure 10 and Table 1 show the breakdown by primary mode of commuting for residents of the Region. Tracts which contain or lie within an established center that has concentrated employment; a mix of retail, service, and institutional establishments; and a robust sidewalk network have higher adoption rates for active transport modes. Put simply: people who live near their jobs and have safe, separated paths to access those jobs will choose active modes.

The four primary considerations in mode choice are monetary cost, time cost, convenience, and perceived safety. Concentrated development with a robust sidewalk network offering a diversity of commercial, civic, and institutional activities addresses all four considerations. Appropriate land use and development policy will do more in the long run to address transportation GHG emissions than any technological intervention.

Table 1: Commute Mode Choice by 2010 Census Tract

Town	Tract 2010	Drove Alone	Carpooled	Transit	Active	Home
Orange	50017959101	82.0%	8.7%	0.0%	1.3%	6.6%
Washington						
Williamstown	50017959200	76.6%	16.8%	0.2%	1.1%	4.4%
Cabot						
Marshfield	50023954000	73.5%	9.0%	0.7%	6.1%	10.2%
Plainfield						
Calais	50023954100	84.7%	4.4%	0.8%	0.8%	8.5%
Woodbury						
Middlesex	50023954200	81.7%	8.2%	0.7%	2.4%	7.6%
Worcester						
Waterbury	50023954300	74.7%	13.4%	2.7%	4.7%	3.8%
Duxbury	50023954400	82.3%	8.4%	1.4%	1.1%	5.4%
Moretown						
Berlin	50023954500	81.5%	10.3%	0.3%	2.3%	4.2%
Montpelier	50023954600	60.5%	5.0%	6.7%	21.4%	5.9%
	50023954700	70.1%	7.5%	2.1%	11.7%	8.3%
	50023954800	52.1%	7.1%	0.3%	28.6%	10.9%
	50023954900	72.2%	8.3%	1.1%	5.0%	12.8%
	Total	62.4%	6.9%	2.7%	18.1%	9.4%
East Montpelier	50023955000	78.5%	6.1%	1.8%	2.5%	10.2%
Barre	50023955100	77.4%	10.5%	1.2%	4.9%	3.6%
	50023955200	74.8%	11.3%	2.0%	5.9%	2.5%
	50023955300	76.6%	13.7%	0.7%	0.0%	7.9%
	50023955400	82.4%	9.0%	0.0%	4.2%	3.5%
	Total	77.8%	11.1%	0.9%	3.7%	4.4%
Northfield	50023955500	69.3%	12.5%	0.0%	13.0%	4.3%
Roxbury						
Warren	50023955600	74.2%	8.6%	0.0%	4.8%	10.2%
Waitsfield	50023955700	73.0%	8.0%	0.0%	2.4%	17.0%
Fayston	50023955800	70.9%	6.8%	0.5%	4.7%	16.9%

3.4: Congestion

Central Vermont experiences very limited travel delay from congestion. To the extent that congestion occurs, it is generally in activity centers (downtowns and villages) during business hours, see figures 11 and 12. This is the outcome we expect when looking at dense, high-activity areas where access is maximized and there are many conflicting movements occurring. As a general pattern, what delay does exist tells a story of successful communities rather than failing roads. The alternative to this limited inconvenience at peak times is a development model that relies on stroads and strip malls with ever more lanes to shunt traffic.

As the Region continues develop, transportation impacts of new development will need to be considered both in the siting of new development and the prioritization of highway projects to handle increased volumes. Locating residential development near commercial and employment centers will limit new congestion by limiting new demand for driving, as will the transportation demand management strategies detailed below.

Figure 11: Average Percent of Free Flow Speed by Segment for Average Weekday 2023

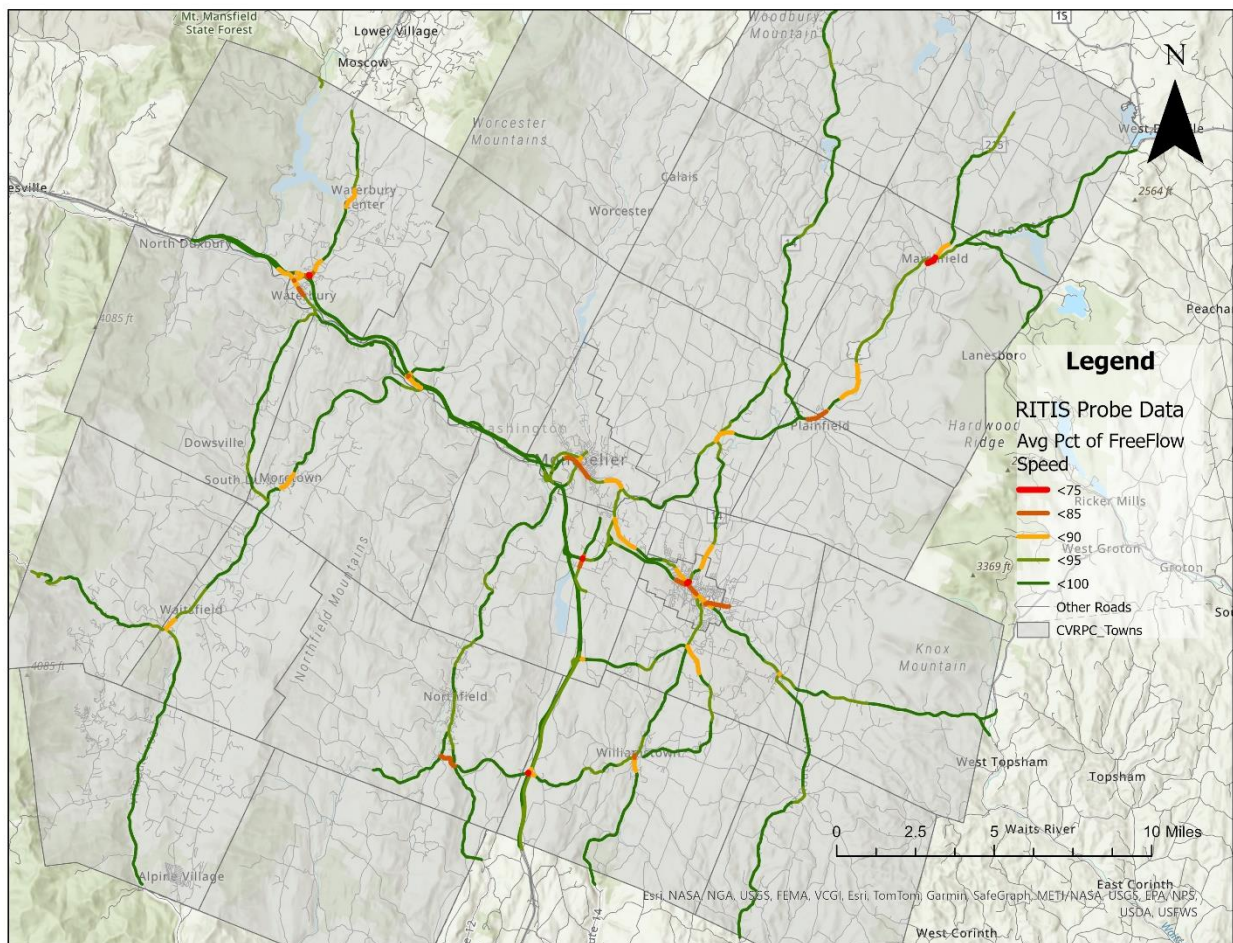
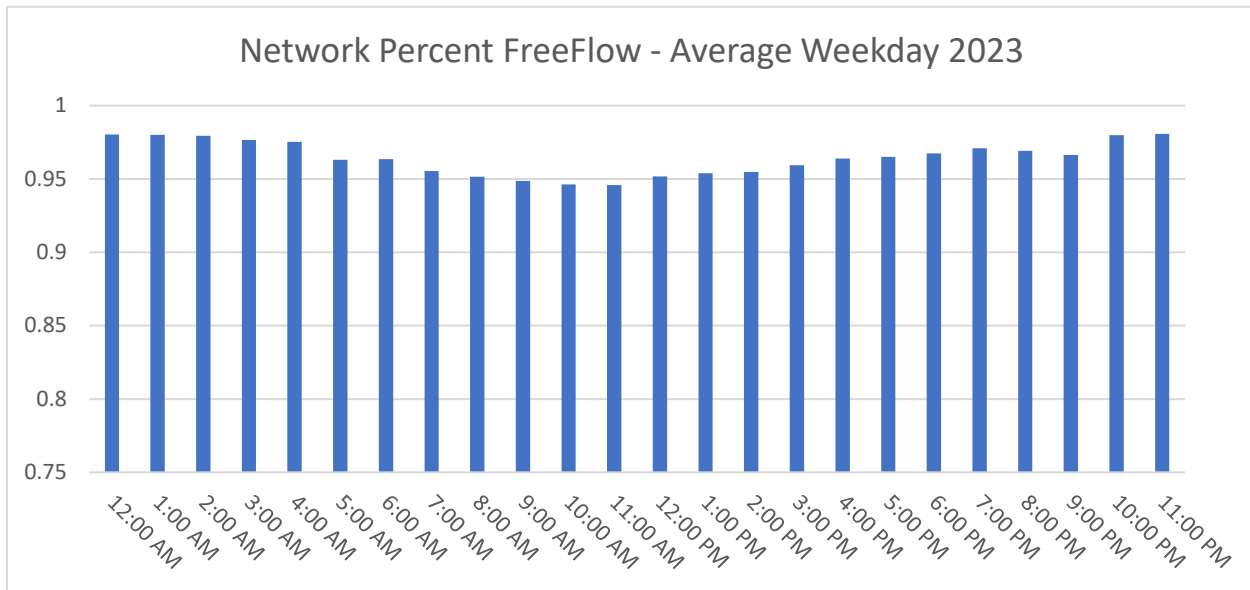


Figure 12: Hourly Regional Congestion



4: Transportation Demand Management

Transportation demand management (“TDM”) is the attempt to maximize the efficiency and resilience of the transportation network by providing users with the widest variety of modal choices. In the Central Vermont planning area this entails assessing the regional network of assets, including the transportation assets described in this chapter and identifying opportunities to expand accessibility to all users. CVRPC regularly collaborates with municipalities, State agencies and other organizations to ensure we support and promote complementary programs (VTrans; GMT). Additional ongoing work takes place on an ad hoc basis with the region’s 23 member-municipalities to promote transit and active transportation. An example of initiatives CVRPC has regularly participated in include:

- Promoting the maintenance and investment in transit
- Support the study of and investment in pedestrian facilities within in the commuter pedestrian walk-shed
- Support the study of and investment in bike facilities within the commuter bike-shed.
- Support the study of and investment in a network of Park and Ride lots (see below)
- Disseminate and promote information on alternative transportation modes for accessing job sites and schools
- Staff time to distribute transit information and coordinate mobility programs in Central Vermont
- Allow staff to participate in alternative work formats and recognize communication and broadband investments are part of modern transportation infrastructure
- Flexible schedules to accommodate carpools and the use of transit
- Remote work (see below)
- Compressed work weeks
- Staggered hours/off-peak shifts
- Employer provided transit passes.

5: Transit

Public transit is an important modal choice in the Central Vermont transportation system. It facilitates the pooling of trips between important origins and destinations and provides basic mobility to any user regardless of access to private vehicles. Public transit provides access to jobs, medical and social services, education, childcare, shopping, recreation, and other essential services.

By pooling trips in vans and busses and moving individuals out of single occupancy vehicles, transit helps reduce congestion, air pollution, parking needs, and the need for expensive highway improvements. A wide variety of public transit services are available within the Central Vermont planning area, including local, regional, and inter-regional services.

5.1: Intra-Regional Transit

Green Mountain Transit (GMT) is the primary public transit provider for the Central Vermont planning area. GMT is a full-service public transportation provider offering fixed route, deviated fixed route, demand response, commuter route, shopping shuttle, Medicaid transportation and transportation services for the elderly and disabled. GMT also provides door-to-door transportation service for those who meet the established criteria for the following programs: Ticket to Ride voucher system, Medicaid, Council on Aging non-Medicaid medical transportation, Job Access and Recovery, and institutional reimbursed transit. In compliance with the Federal Americans with Disabilities Act (ADA), GMT provides door-to-door transportation services for those who are unable to use the non-commuter fixed route bus service.

GMT is considered a municipality under Vermont state statute and is the first and only transit authority in the State of Vermont. GMT receives funding from the State of Vermont, the Federal Government and local money from municipalities and businesses in the service area. The Board of Directors comprises two commissioners representing Burlington and one commissioner representing each of the following; South Burlington, Winooski, Essex, Shelburne, Williston, Milton, Hinesburg, Washington County, Lamoille County, Franklin County, and Grand Isle County. GMT services are operated out of three locations, Berlin, Burlington, and St Albans. At each of these locations there are administrative offices as well as a maintenance garage and busses storage.

Table 2: GMT Central VT Ridership Pre-COVID

#	Route Name	FY15	FY16	FY17	FY18	FY19
79	CVMC Barre Health Shuttle	600	2,277			
80	City Route Mid-day	27,824	26,421	24,734	21,796	25,426
81	Barre Hospital Hill	30,717	30,766	25,371	29,352	35,252
82	Montpelier Hospital Hill*	21,411	21,259	21,248	21,803	24,528
83	Waterbury Commuter	9,864	10,689	11,107	10,822	10,495
84	US 2 Commuter***	10,049	9,125	7,983	7,318	8,280
85	Hannaford Shopping Special	2,609	2,971	2,734	2,681	1,568
87	Northfield Shuttle	868	1,272	954	1,090	857
88	Capital Shuttle*	6,037	4,930	5,474	6,444	10,188
89	City Commuter	41,284	35,657	36,824	36,362	36,401
90	Plainfield Shuttle	811	820	780	779	574
91	Hospital Hill Demand Response	1,963	1,420	896	1,104	820
92	Montpelier Circulator*	19,369	18,015	18,226	16,686	17,021
93	Northfield Commuter	7,783	6,648	7,006	6,896	7,534
100	Route 100 Commuter	12,551	12,356	10,139	8,383	8,952
Full Year Service Ridership		193,740	184,626	173,476	171,516	187,896
120	Valley Floor**	7,600	3,613	7,080	7,574	6,481
121	Valley Evening Service**	2,168	1,633	1,852	2,341	1,837
122	Mount Ellen**	24,130	16,485	19,468	21,858	31,896
123	Mad River Glen**	676				
124	Mountain Condos**	11,088	10,610	13,201	10,808	9,064
125	Access Road**	13,218	9,470	12,508	10,865	0
126	SnowCap Commuter**	757	303			
Seasonal Service Total		59,637	42,114	54,109	53,446	49,278
99	Special Services	3,153	4,148	2,506	2,750	1,472
Total Regional Ridership		256,530	230,888	230,091	227,712	238,646

*Replaced by GMT MyRide

**Mad River Valley Seasonal Service

***Inter-Regional

Table 2 and Figure 13 show annual change in ridership for lines service the CVRPC region for the five-year span prior to the pandemic. During this time system ridership saw an 11% decline with total demand rebounding between FY 18 and FY 19. Figure 14 shows GMT year-round fixed services for the region, including the service area MyRide which is a flex-route on-demand service with branded ADA-compliant vehicles. MyRide replace routes 82, 88, and 92 as its creation made them redundant.

Figure 5: CVRPC Region Ridership Trends

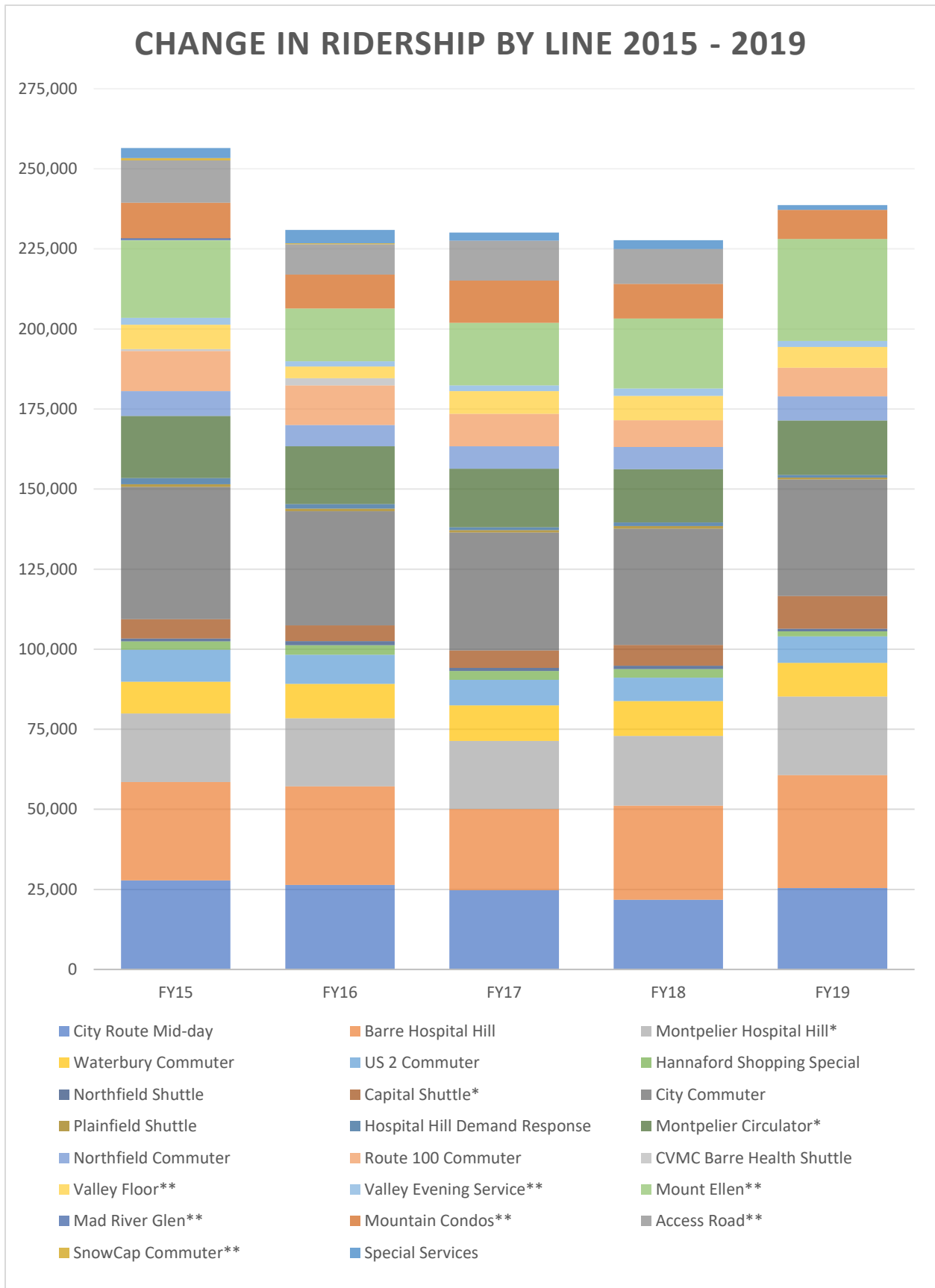
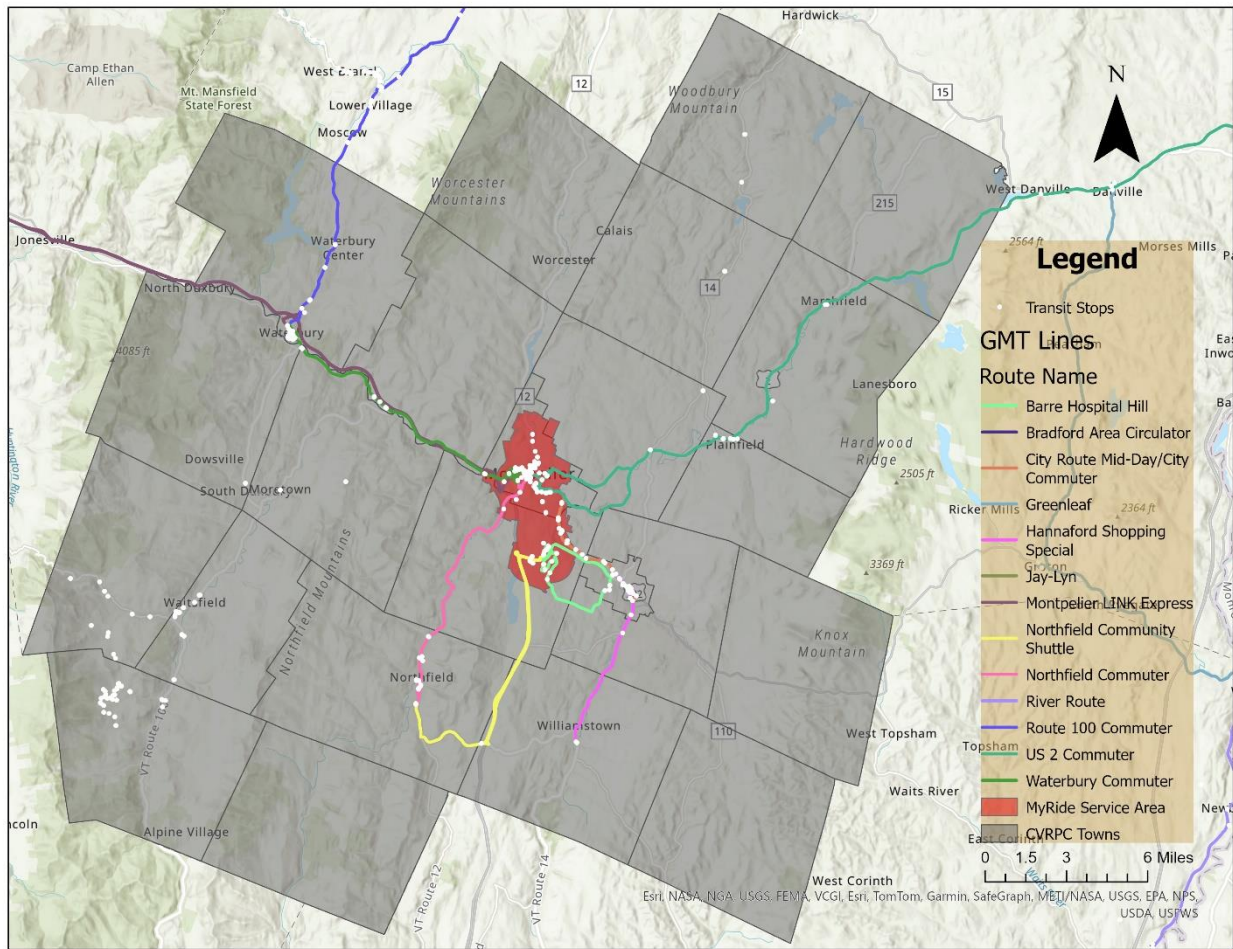


Figure 6: Year-Round GMT Fixed Services and Stop Locations



Fixed route service is the most common type of bus transit. It operates along a fixed service route and on a fixed schedule. Riders need only access the schedule and a local bus stop to use this service.

Local Commuter routes are similar to the fixed route services but do not operate all day. They have specific runs developed around the commuting population. They often run between town centers.

LINK Express routes are run out of the Burlington garage and are inter-regional commuter routes.

On demand services provide transit to riders by request. The rider specifies the pick-up time and location and drop off location within the broader service area. Multiple riders can be picked up when routes overlap. In 2021, GMT ended fixed route service in Montpelier and replaced it with an on-demand service, known as MyRide. MyRide also serves as the ADA paratransit service within the service area. Riders can book rides through an app on their phones or by calling into the call center. Rides can be booked in advance or at the time they are required.

ADA Paratransit Services are for individuals unable to use GMT fixed route bus system because of a disability. This paratransit service is provided within three-quarters of a mile, on either side, of the GMT fixed route system and is door-to-door.

Volunteer Drivers: GMT manages a volunteer driver program to meet the transportation needs of residents that can't use other scheduled services. This service reaches all 23 towns in the Region.

Ticket to Ride Program Persons with disabilities and people over age 60 are eligible for transportation services that may not be covered by other programs. These trips are typically not for medical or shopping purposes, but for errands, personal business, or social reasons.

5.2: Montpelier Transit Center

GMT also operates the Montpelier Transit Center at 61 Taylor Street in Montpelier. The Montpelier Transit Center provides a hub for GMT's passengers as well as passengers of long distances transportation services such as Greyhound. The transit center features a customer service space, a large lobby, an operator break space, and bathrooms.

5.3: Rural Community Transportation

Rural Community Transportation, Inc. (RCT), is a private nonprofit 501(c)(3) corporation that provides public transportation services throughout Caledonia, Orleans, Essex, and Lamoille Counties. Additional commuter routes connect Montpelier, Barre and Waterbury to destinations outside of the Central Vermont planning area. RCT operates the Route 100 and US 2 Commuter services shown in figure xx [transit map above].

5.4: Active Transportation (Bicycle and Pedestrian Infrastructure)

Currently Throughout the region, dedicated space on road shoulders supports bike commuters. Additionally, sidewalks are widely available for pedestrians in the traditional town centers. Figure 15 overlays employment centers with existing and planned (Cross VT Trail and Central VT Regional Path) bike and pedestrian infrastructure as well as locations of pedestrian and cyclist crashes.

While the quality of intra-communal active transport connections varies, high quality connections between centers in the region are non-existent. This results in a situation where – on most arterials and many connectors – active transportation is a hostile proposition and cycling will be viewed as viable only by experienced riders whose modal choice is less responsive to comfort and safety considerations. Effecting a shift to active modes for a greater share of functional (non-recreational) trips will require the development and expansion of low-stress networks, both on- and off-road, for suitable for pedestrians and cyclists of all skill and comfort levels.

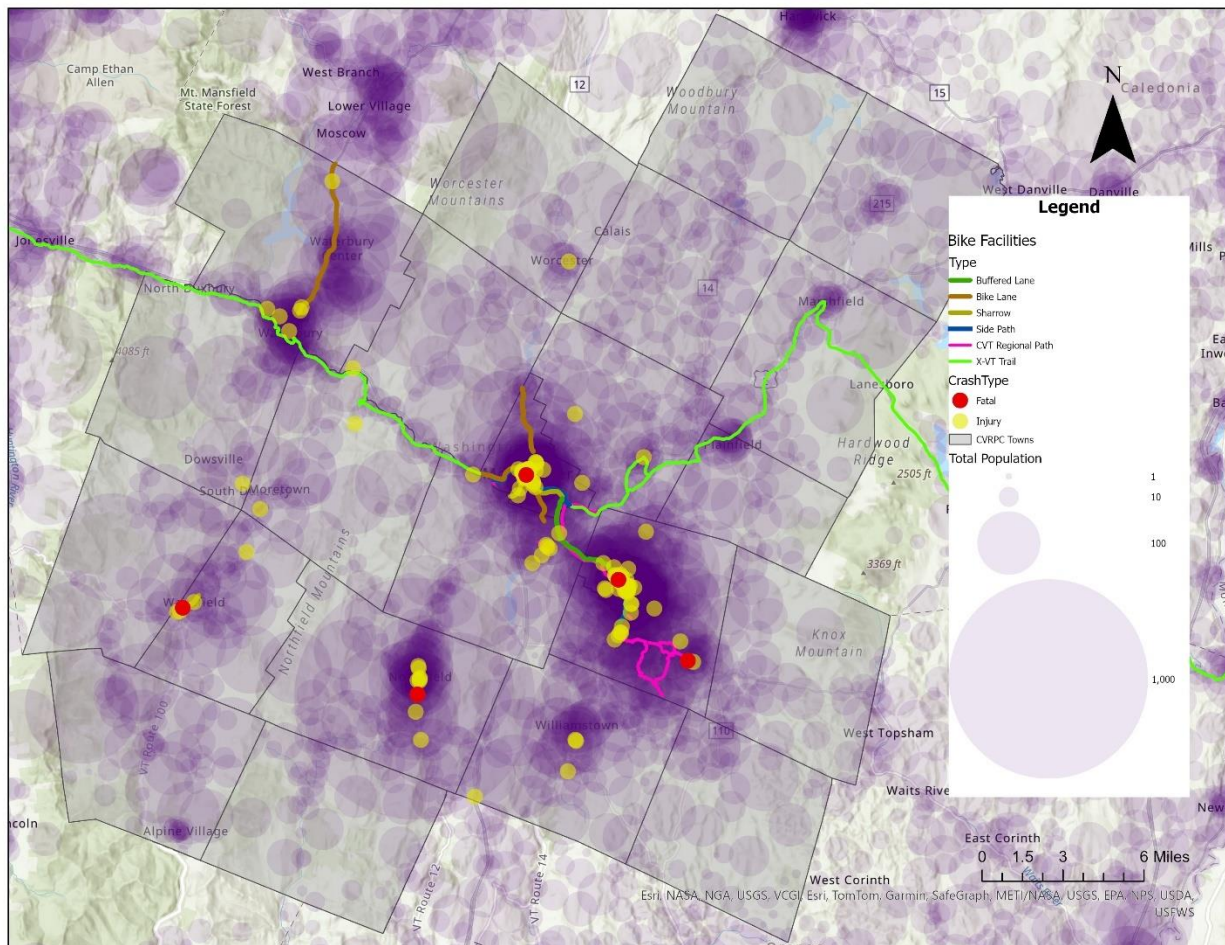
The design of community infrastructure, including roads, sidewalks, and public spaces, influences the physical activity levels of residents. Walkable neighborhoods with well-designed infrastructure encourage physical exercise, reduce reliance on motorized transportation, and contribute to lower rates

of obesity and related health issues. Conversely, poorly planned infrastructure can hinder active lifestyles and compromise community health.

Complete Streets are designed for all roadway users and are accessible whether driving, riding, walking, bicycling or rolling (using a wheelchair or pushing a stroller). Not every street is expected to be a “complete street”, but Complete Streets policies are those that consider the needs of all users and, when appropriate, meet these needs.

Housing density complements walkability and bikeability, access and preservation of green spaces, access to amenities, including food access and access to social infrastructure. Mixed-use developments are encouraged in Village and Growth Areas to allow commercial, business, low-intensity industrial, and residential uses. Mixed-use allows for goods and services to be accessible to all and encourages walkability, bikeability and community health.

Figure 75: Existing AND Proposed Bicycle Facilities With Cyclist and Pedestrian Crash Locations 2015-2023



The State makes funding available for active transportation capital investments but gives little to no funding for maintenance. The active transportation network is principally the responsibility of local governments.

5.5: Park & Ride Lots

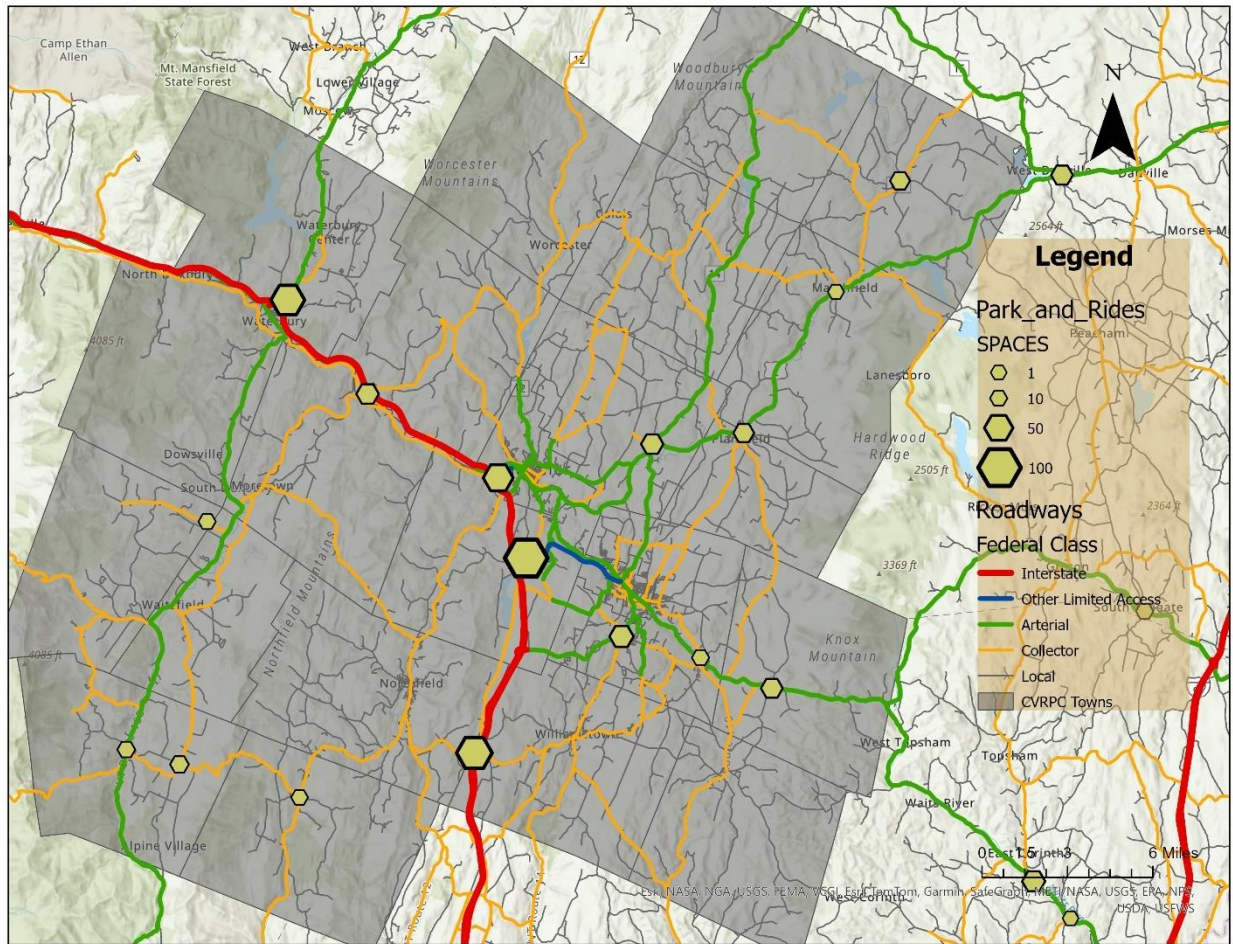
The function of a park and ride lot is to provide a safe and secure location for motorists to park their vehicle while they share a ride with another motorist or on a transit bus. Its spin-off impacts can include reducing gasoline consumption and air-pollutant emissions, reducing traffic volumes in major business areas, lengthening the life of vehicles, and reducing commuting costs. Statewide, the typical Vermont park and ride commuter lives in a small town, travels about fifteen minutes to a lot, moves into another automobile with one or two other people, and travels around forty minutes to their job in a larger town located off I-89 or I-91. There are twelve facilities located in the Central Vermont Region. The location, capacity, and average usage of these lots are noted in Table 3. Figure 16 shows park and ride locations by size in the regional context.

Table 3: Park and Ride Utilization by Season

State Lots		Winter		Summer		Autumn	
Location	Total Spaces	# of vehicles	% full	# of vehicles	% full	# of vehicles	% full
Montpelier DOL	170	81.5	48%	39	23%	44.3	26%
Montpelier MJSH	55	29	53%	24	44%	37.7	68%
Waterbury	69	53	77%	50.5	73%	52.3	76%
Middlesex	28	12.5	45%	12.5	45%	13.7	49%
Berlin	81	42	51%	58.5	72%	49.0	60%
East Barre	10	2	15%	3	30%	3.0	30%
Barre Town	34	14	40%	10	29%	9.3	27%
Williamstown	25	12	46%	15.5	62%	17.3	69%
Roxbury	8	1.5	19%	0.5	6%	0.3	4%
Plainfield	22	4	18%	2.5	11%	4.0	18%
Marshfield	6	2.5	42%	0.5	8%	1.0	17%
Orange	26	4	15%	0	0%	3.0	12%
Warren	12	2	17%	5.5	46%	2.7	22%
East Warren	15	3	17%	1	7%	0.7	4%
Cabot*	19	1	5%	15.5	82%	9.7	51%
East Montpelier	6	4	58%	1.5	25%	1.7	28%

* Cabot PnR values reflect regular use associated with foodbank/historical building

Figure 8: CVRPC Park and Ride Locations and Capacities



6: Inter-Regional Transportation

6.1: Passenger

6.1A: Automobile Traveler Services

The State provides rest areas and traveler service amenities to provide a safe location for safety breaks to prevent fatigued driving. The facilities additionally provide travelers with access to restroom facilities, shelter from adverse weather, travel information, coffee breaks, free wireless internet, vending machines, Vermont promotions, brochures, display cases, wayfinding services, and access to travel ambassadors within the Central Vermont planning area, two such locations exist: The Capital Region Visitor Center at 134 State Street Montpelier, and Maplewood Vermont Travelers Service Center at I-89 Exit 7. The latter of these locations was created through a public-private partnership with the State, and offers Vermont information for travelers, restrooms, free wifi, a convenience store, gas, diesel, and electric vehicle charging.

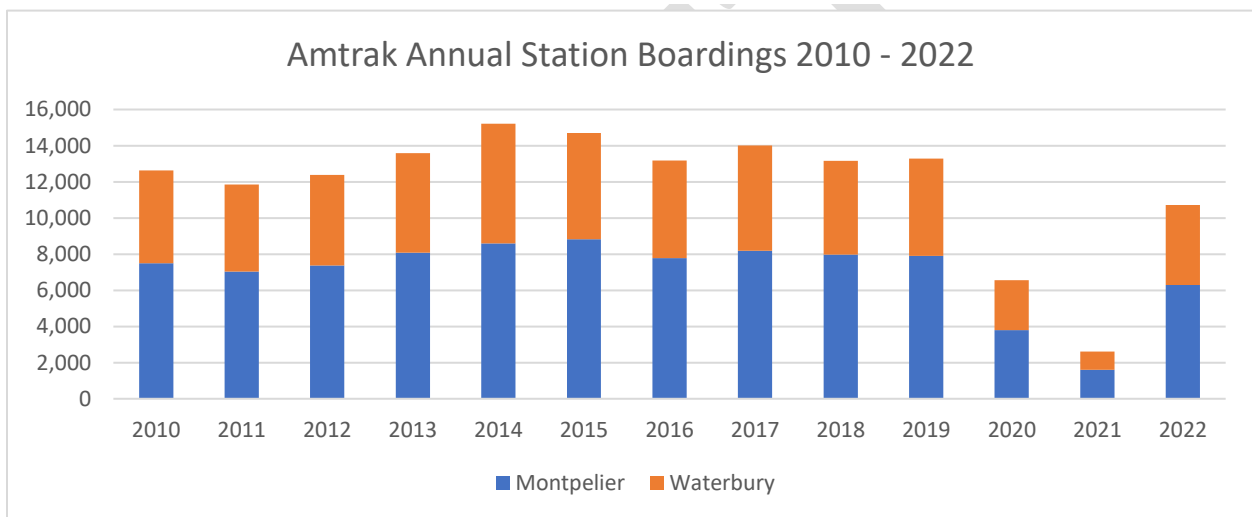
6.1B: Busing beyond the Region

The Montpelier Transit Center is serviced by Greyhound Lines with intercity routes within Vermont as well as routes connecting to larger cities across the northeastern United States and Canada.

6.1C: Passenger Rail

The Montpelier-Berlin Station and the Waterbury Station are both served by Amtrak's Vermonter line, offering service north and south between St Albans and Washington DC via New York City. Both of these stations should be better connected to their respective downtowns: while Waterbury Station has a Walk Score of 61 (Somewhat Walkable), Montpelier-Berlin has a score of 0 (Entirely Car Dependent). In Montpelier's case the station is roughly 1/3 mile from the nearest pedestrian facility and is surrounded by industrial uses.

Figure 17: CVRPC Amtrak Ridership Trend



6.1D: Aviation

There are two airports located in the Central Vermont Region: the Edward F. Knapp State Airport (MPV) and the Warren-Sugarbush Airport (OB7). Burlington International Airport is the closest commercial service airport.

Knapp Airport has two runways, including a 5,000 foot runway. Knapp Airport sees regular jet traffic and accommodates a scheduled daily freight service. Knapp Airport is state owned public-use airport that is part of the National Plan of Integrated Airport Systems (NPIAS) and is thus eligible to receive federal funding under the Airport Improvement Program (AIP). Under the Vermont Airport System Plan Knapp Airport is considered a Category 3 Airport. As such, it can accommodate jet activity during a broader range of weather conditions and serve as a regional gateway for activities such as corporate aviation, charter services, and small cargo-feeder operations. Knapp airport has significant unused capacity with itinerant air-taxi operations down 70% since 1990, itinerant general aviation down almost 90%, and a 50% decrease in local general aviation. This available capacity should inform future regional economic development strategies as air transport is most commonly used for high value goods and specialized services.

Warren-Sugarbush Airport is privately owned and has one 2,575-ft long by 30 feet wide paved runway. Warren-Sugarbush Airport primarily provides specialty services as a premier soaring center.

- Airports Map (Including in adjacent regions) [Figure 18]

DRAFT

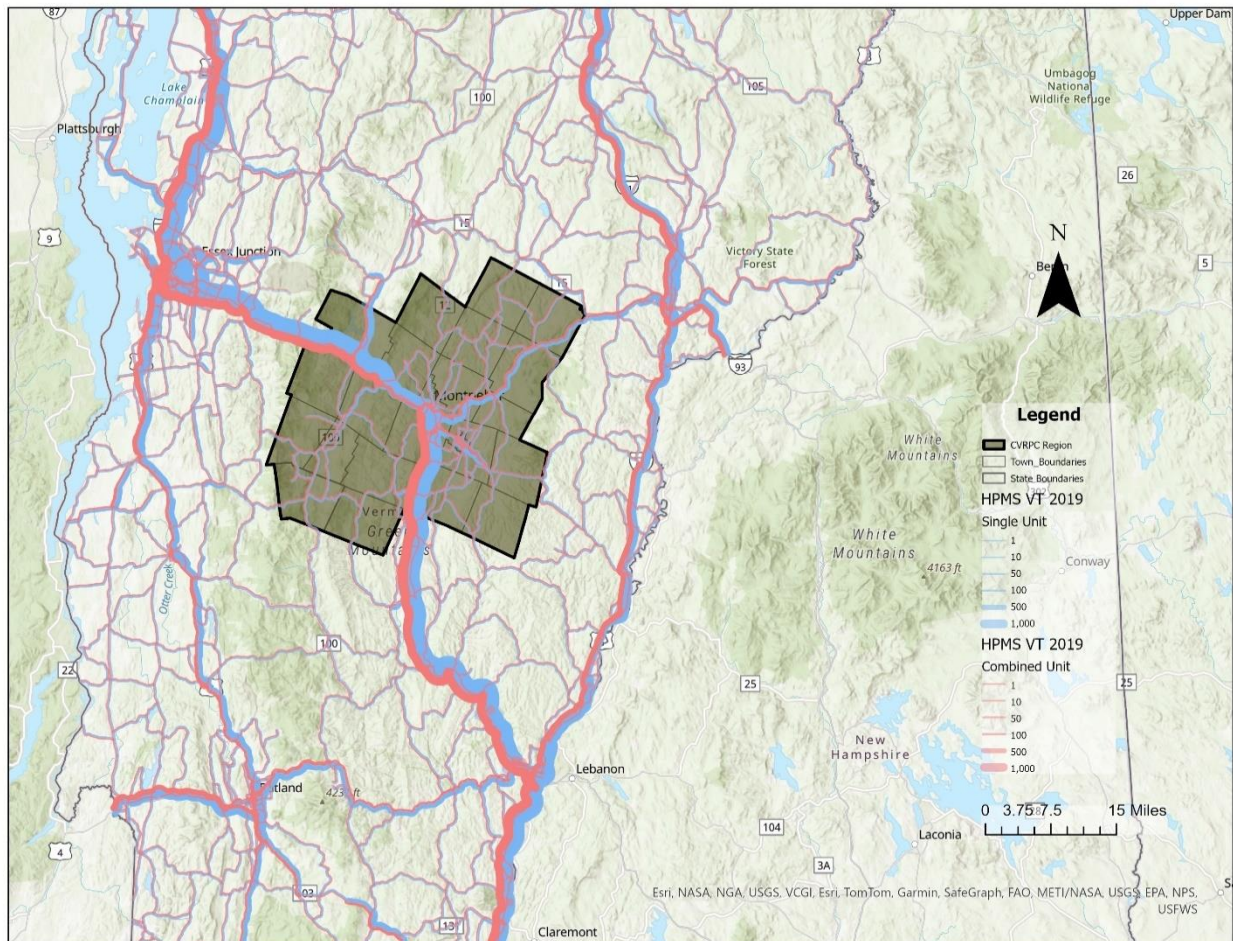
6.2: Freight

The national freight network comprises the highway, rail, air, water and pipeline systems and the intermodal transfer points that facilitate the freight exchange between networks. Central Vermont does not have access to ports or pipelines, as such this chapter will focus on highway freight network, the rail freight network and air freight.

6.2A: Truck-Borne Freight

In Central Vermont, the highway freight system comprises nearly all roads from the local roads that carry milk and log trucks and e-commerce, the state routes that support longer distance trips, to the interstate system that connects Vermont shippers to the rest of the county, Canada, and coastal ports. Within this network, certain routes stand out for the volume of truck traffic they carry. In Central Vermont, I-89 is the backbone of the highway freight system and as such is designated as part of the National Highway Freight Network and eligible for federal freight funding for investment. However, from our analysis of truck volumes through the region, many routes play an important role in the collection and distribution of freight through the region or connecting Central Vermont to adjacent regions. Figure 19 shows volumes of single and combined-unit trucks for CVRPC and surrounding areas.

Figure 11129: Average Daily Truck Volumes HPMS 2019



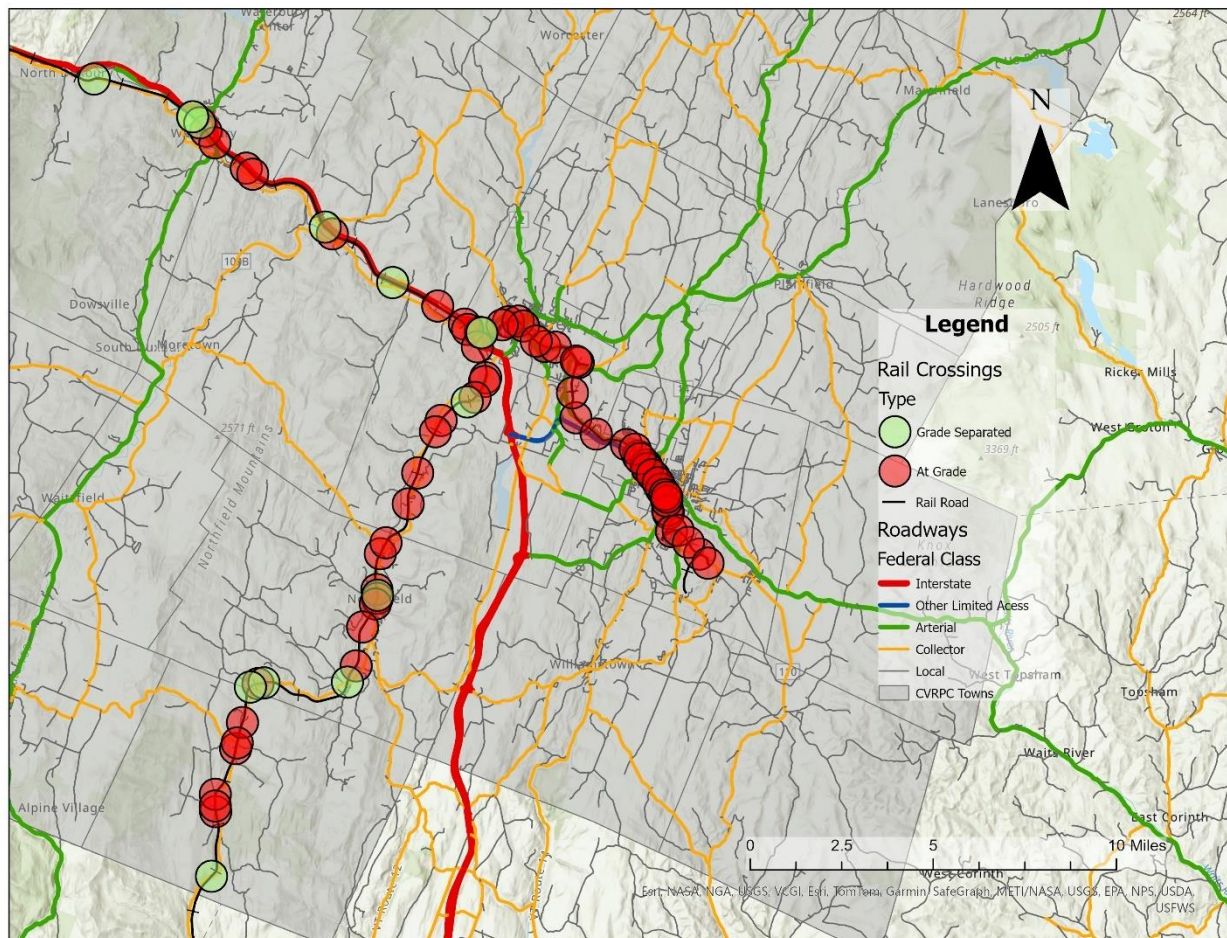
6.2B: Rail Freight Network

New England Central Railroad (NECR) operates an FRA Class 3 Railroad along the Route 12A corridor through Roxbury, Northfield, and Berlin, and the I-89/Route 2 corridor to the Burlington area. Freight service is operated over this line in addition to Amtrak passenger rail service. This rail line is an important link between Canada and Southern New England. In addition to picking up traffic from the Washington County Railroad, there are a limited number of local industries serviced along the NECR. Much of the freight is considered overhead, or through traffic, and does not impact the Central Vermont region.

The rail spur between Montpelier Junction and the Rock of Ages granite quarry in Barre is owned by the State of Vermont and is known as the Washington County Railroad (WACR). The Washington County Railroad is a private operator that leases the line from the State.

Figure 20 shows the location and type of rail crossings in the CVRPC region. The vast majority are at-grade, including many found in downtown and village areas. While this is not a serious problem at the moment, efforts to increase rail volumes would need to recognize the safety and congestion challenges that these crossings could create.

Figure 20: Rail Crossings by Type



6.2C: Air Freight

Edward F. Knapp Airport (MPV) handles small cargo-feeder operations. MPV is served by Wiggins Airways, a contract carrier for FedEx and UPS, via a single route connecting it to Wiggins' hub in Manchester, New Hampshire.

6.2D: Inter-Modal Transfer Centers

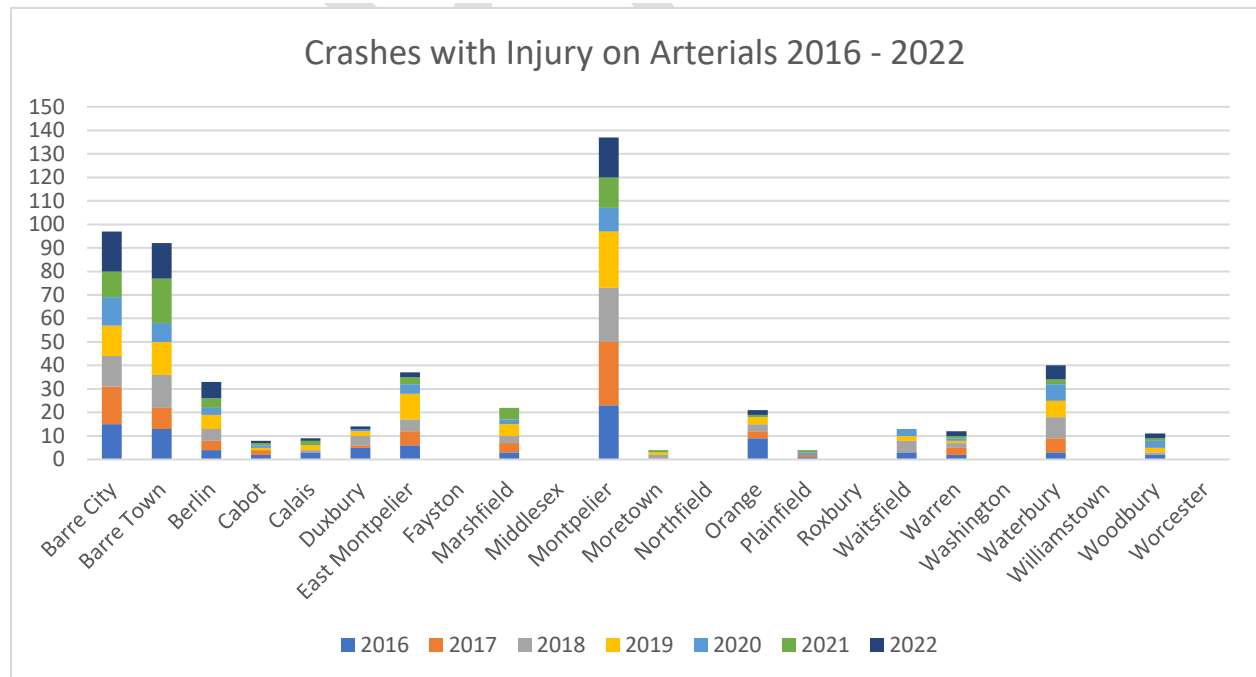
Inter-modal transfer centers provide a location where freight can move between freight modes. In Central Vermont this is limited to transfers between rail and truck and services heavy cheap materials and fuels. DuBois Construction maintains the only transfer center in the region in Middlesex for transloading equipment and materials³.

7: Safety

Figures 21 and 22 below show crashes with injury or fatality resulting from 2016 through 2022 by town for arterial and collector roads respectively. From the data we can see that the higher speed and volumes on arterials are associated with higher occurrence of injuries and fatalities. We can also see that towns with higher activity levels (ie – more trips due to concentrations of population and/or employment) have higher incidence of these crash types.

Of crashes where a fatality occurred roughly 65% involved some form of driver impairment from drugs and/or alcohol. This points to the need for enforcement to be a component of future Vision Zero efforts in the region.

Figure 13: Fatality and Injury Crashes on Arterials



³ (Cambridge Systematics, 2021)

Figure 15: Fatality and Injury Crashes on Collectors

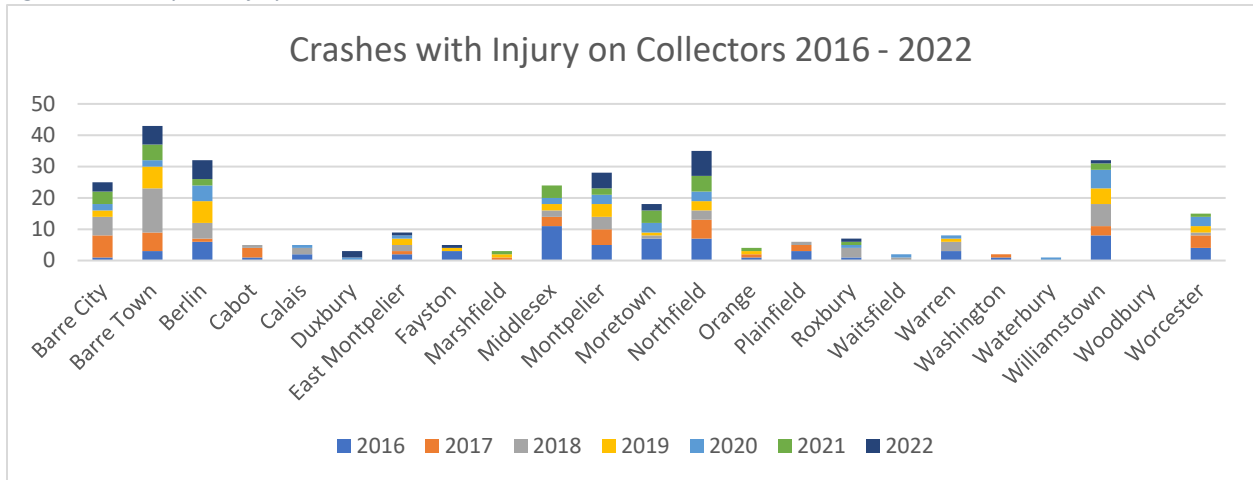


Figure 23 shows the spatial distribution of injury and fatality crashes within the region. This data will be used to inform priority locations for future studies and will serve as the basis for the forthcoming Regional Safety Action Plan for Central Vermont funded through the USDOT Safe Streets and Roads for All (SS4A) program. In addition to driver behaviors and road conditions, CVRPC will evaluate design elements such as sightlines and cartway geometries.

Figure 14: Locations of Injury and Fatality Crashes 2016 - 2022



8: Historic and Natural Transportation Assets

8.1: Historic Site Markers

Unveiled in 1947 by the Vermont Legislature, the Roadside Historic Site Marker program has proven an effective way to commemorate Vermont’s many people, events, and places of regional, statewide, or national significance. Nearly 310 cast-aluminum green markers, crested with the distinctive gold state seal, are placed throughout Vermont to provide a fascinating glimpse into the past and insights into the present. Vermont’s easily identifiable roadside historic site markers commemorate diverse topics. An online map of these markers is available at: <http://roadsidemarkers.vermont.gov/>

Town Name	Specific Location
Duxbury	<ul style="list-style-type: none">- Views from Route 100, especially those north to Mount Hunger, south the Northfield range, and the views of Camels Hump in South Duxbury- Views of Camel Hump, especially those from Ward Hill and Scrabble Hill and Mountain View- Views from River Road and Duxbury Corner across the Winooski River valley to the Bolton ridgeline
Moretown	<ul style="list-style-type: none">- Valley land along the Mad River and Route 100B at the Waitsfield town line- Route 100B is recognized as a Scenic Byway
Warren	<ul style="list-style-type: none">- Forest Reserve district- Meadowland Overlay district- Route 100 corridor near Sugarbush
Williamstown	<ul style="list-style-type: none">- Waterfall area of Falls Bridge Road
Woodbury	<ul style="list-style-type: none">- Nichols Ledge- Ridgeline of Woodbury Range- Surface waters that distinguish Woodbury as the “Land of Lakes and Ponds”
Worcester	<ul style="list-style-type: none">- North Branch Cascades Trail- Route 12, especially north of the village through the Worcester Woods- Worcester Mountain Range

Table 4: Historic Markers by Town

8.2: Scenic Byways

“In 1991, through the Intermodal Surface Transportation Efficiency Act (ISTEA), the U.S. Congress created the National Scenic Byways Program as an effort to “identify, designate, and promote scenic byways and to protect and enhance the archeological, cultural, historic, natural, recreational, and scenic qualities of the areas through which these byways pass.” (VTrans Byways Manual)

A “Vermont Byway” is a road that has been formally recognized by the Vermont Transportation Board as having special scenic, historic, recreational, cultural, archeological and/or natural qualities. For a road to receive “byway” designation, it must be nominated – a process usually initiated at the municipality level – and subsequently evaluated and certified. Byway designation can be used as a marketing tool, a framework to develop management strategies for natural and cultural resources, and a means of accessing federal transportation dollars. Full background and process for The VT Byways Program can be found in the program manual.

9: Putting the “Fun” in Funding

Table 4 shows funding programs available to municipalities for planning and implementation purposes. CVRPC is happy to assist in finding funding from state and federal programs and agencies.

Table 4: Transportation Funding Sources

Program	Funding Available	Municipal Costs
Bridges		
VTrans- Town Highway Structures Program for short bridges < 20'	State funds-\$175,000	80/20 match, may be reduced to 10% w/ requirements (highway study and standards requirement)
Vermont State Infrastructure Bank	1% fixed loans up to 30 yrs., 10-20% borrower equity contribution	Fees for loan, can take up to 5 yrs to begin repayment but still must complete in 30 yrs.
FEMA- Hazard Mitigation Grant Program (HMGP)	15% of Public Assistance w/in ~12 months of a disaster. Must have a benefit cost analysis. Usually 3-5yr time line.	75/25 cost, reimbursement grant
FEMA- Building Resilient Infrastructure and Communities (BRIC)	State allocated 2 million/yr. beyond that nationally competitive	75/25 cost, reimbursement grant.
Town Highway Bridge Program	Varies- coordinate with RPC	Varies-minimum 10% match
Culverts		
VTrans-Better Roads -Category B-road drainage, Cat. C- streambank, shore, and slope stabilization	Up to \$60,000 for either 1 large or multiple small culverts	80/20 cost-local match can be covered using labor, equipment and materials
VTrans-Grants in Aid- road drainage	To be determined by program manager and budget for year	80/20 cost-local match can be covered using labor, equipment and materials
Federal- through VTrans-Municipal Highway & Stormwater Mitigation Program-	To be determined by program manager and budget for year	80/20 cost- reimbursement program, usually take 3-5 yrs.
VTrans- Town Highway Structures Program for culverts greater than 36"	State funds-\$175,000	80/20 match, may be reduced to 10% w/ requirements (highway study and standards requirement)
VTrans- Town Highway Structures Program for class 2 roads culverts under 36"	State funds-\$175,000	70/30 match, may be reduced to 20% w/ requirements (highway study and standards requirement)
FEMA- Hazard Mitigation Grant Program (HMGP)	15% of Public Assistance w/in ~12 months of a disaster. Must have a benefit cost analysis. Usually 3-5yr time line.	75/25 cost, reimbursement grant.
FEMA- Building Resilient Infrastructure and Communities (BRIC)	State allocated 2 million/yr. beyond that nationally competitive	75/25 cost, reimbursement grant.
Fish and Wildlife Fish Passage: USFW-grant	Contact Regional Fish Passage Coordinator	Match varies from none to 50%
General Transportation		
Municipal Highway and Stormwater Mitigation Program	\$1.5 million federal funding annually	80% Federal – 20% Local
Better Roads Program	Varies by purpose	
VTrans Municipal Grants in Aid Program	technical support and grant funding to municipalities to promote the use of erosion control and maintenance techniques that save money while ensuring best management practices	
VTrans Capital Program (VPSP2)	Very high cap	80% federal with 20% State and/or Local match
Better Connections	\$260K statewide	90% state - 10% local match for multimodal projects
Bicycle and Pedestrian Grant Program	Varies by purpose	Varies by purpose

Goals and Strategies

Aspiration: Provide an integrated regional transportation system that provides safe and reliable access for all Central Vermonters while promoting health and reducing the climate impacts of travel behaviors.

The above aspiration provides an overall direction for the CVRPC to follow. To guide our actions, CVRPC established a series of ten transportation goals that further define our progress. These goals are described below, as well as the policies written to provide guidance of how the goals can be achieved.

Goal 1: Employ an inclusive, participatory, and sustainable regional transportation **planning** process.

Strategy 1.1: Support regular engagement with the CVRPC Transportation Advisory Committee and Road Supervisors' Round Table to identify regional needs and steer planning priorities.

Strategy 1.2: Coordinate transportation planning at the municipal, regional, State, and private levels.

Strategy 1.3: Prioritize regional planning goals when evaluating projects.

Strategy 1.4: Employ open and inclusive participatory processes.

Strategy 1.5: Provide comments/recommendations regarding impacts of specific land use projects on the regional transportation system during the permitting process.

Goal 2: Increase the **safety** of the transportation system for all users.

Strategy 2.1: Promote participation in Safe Routes programs and provide technical assistance for associated plans.

Strategy 2.2: Prioritize safety-targeted measures at High or Potential Crash Locations

Strategy 2.3: Prioritize safety improvement projects that limit conflicts between modes.

Strategy 2.4: Support projects to provide greater safety for transit riders and operators.

Strategy 2.5: Publicize rights and protections for vulnerable roadway users.

Strategy 2.6: Prioritize projects that employ Complete Streets principles.

Goal 3: Mitigate the impacts of the transportation system on the **environment and climate** and plan for the impacts of climate change on the transportation system.

Strategy 3.1: Support planning efforts that adhere to smart growth principles.

Strategy 3.2: Prioritize the development of active transportation networks for functional trips including work commutes and shopping.

Strategy 3.3: Enable municipalities to consider the relationships between development patterns and transportation demand in their local planning and permitting through technical assistance.

Strategy 3.4: Support efforts to adopt alternative fuels for municipal vehicles.

Strategy 3.5: Factor long-term direct and indirect costs and benefits into decision-making. Impacts that are not easily expressed in dollar values should also be considered.

Strategy 3.6: Assist efforts to site new EV charging infrastructure.

Strategy 3.7: Assist municipalities in planning for retirement of infrastructure rendered non-viable by climate change.

Goal 4: Increase the **resilience** of the transportation system for motorized and non-motorized users.

Strategy 4.1: Plan for the provision of essential transportation during natural disasters.

Strategy 4.2: Leverage the AOT Transportation Resilience Planning Tool to identify and mitigate hazards caused by vulnerable roadways to neighborhoods and users.

Goal 5: **Maintain** and maximize the performance of the existing network for people and freight.

Strategy 5.1: Provide technical assistance for evaluating, prioritizing, and implementing preventive maintenance programs for all elements of the transportation system.

Strategy 5.2: Target levels of service (LOS) appropriate to local context: LOS C as preferred minimum, LOS D acceptable in built up settlements

Strategy 5.3: Provide technical assistance to municipalities to optimize traffic operations

Strategy 5.4: Promote physical and operational connections between various modes of transportation and prioritize projects that integrate various modes.

Strategy 5.5: Encourage access management policies that improve safety, reduce traffic congestion, and maintain capital investment.

Strategy 5.6: Conduct intersection studies when merited by safety or capacity issues.

Goal 6: Facilitate the development of a transportation system that provides **access for all**.

Strategy 6.1: Assist in planning for all segments of the population to have access to a full range of goods, services, and activities.

Strategy 6.2: Assist transit providers in determining equitable distributions of transit service

Strategy 6.3: Facilitate full access to the Region's transportation services for the Region's disabled and elderly.

Strategy 6.4: Engage and educate the public on modal choices and related infrastructure.

Strategy 6.5: Provide technical assistance to the Region's employers in the development of Travel Demand Management Programs (e.g. telecommuting, flextime, compressed work weeks, rideshare matching, preferential parking, commuter fringe benefit, etc.).

Strategy 6.6: Facilitate the establishment of Transportation Management Associations to organize and administer TDM Programs.

Goal 7: Promote **positive health outcomes** by coordinating land use and transportation planning to favor active transportation in new development and redevelopment efforts.

Strategy 7.1: Assist communities working to comply with Vermont Act 34 (Complete Streets)

Strategy 7.2: Provide technical assistance and grant support for projects to increase active transport mode share

Strategy 7.3: Lead safety assessment and improvement projects for active transport

Strategy 7.4: Provide training on benefits of collocating residential uses with traveler destinations

Strategy 7.5: Assist municipalities with code language to create built environments hospitable to active transport

Goal 8: Promote **connectivity between modes** for all users.

Strategy 8.1: Facilitate the expansion of convenient connections to the rest of Vermont, the US and the World via scale-appropriate modes.

Strategy 8.2: Assist in planning public transit that advances economic development, including employment, medical services, shopping, and tourist areas.

Strategy 8.3: Prioritize intermodal projects for people and freight.

Strategy 8.4: **Rural Shared Transit Options?(e.g. transportation hubs with basic amenities).**

Goal 9: Leverage transportation investments to increase Vermont's **economic vitality** and support planned growth areas.

Strategy 9.1: Provide grant-writing assistance and letters of support for transportation system improvements at locations where they will or can serve centers of activity.

Strategy 9.2: Plan for transportation policies and projects that contribute to the economic health of the Region.

Strategy 9.3: Prioritize transportation system improvements that renew and improve downtowns, centers of activity, and neighborhoods.

Strategy 9.4: Provide technical assistance in the development of park and ride lots for ridesharing and public transit use and encourage employers to provide incentives to rideshare.

Strategy 9.5: Evaluate proposed investments in the freight network to support local manufacturing and commerce.

Goal 10: Protect and enhance **cultural resources**, prioritize aesthetically- and contextually-sensitive highway system design, and promote development patterns that support the **land use goals** of the regional plan that improves the quality of life and supports healthy communities.

Strategy 10.1: Require the full integration of transportation and land use planning at the regional and local levels as a condition of support for town plans and grant applications

Strategy 10.2: Provide technical assistance and support with grant applications for efforts to create livable, aesthetically pleasing infrastructure and healthy communities.

Strategy 10.3: Advocate for restoring or preserving historic bridges when viable.

Strategy 10.4: Advocate for preserving and enhancing scenic views and corridors.

Goal 11: Develop a transportation network that facilitates **tourism and recreation**.

Strategy 11.1: Advocate for the preservation of existing rights-of-way for future transportation purposes, such as Class 4 Roads and Legal Trails. Work to retain abandoned railroad rights-of-way for transportation uses such as trails and bike paths.

Strategy 11.2: Provide technical assistance and support with grant applications to regional scenic byways groups.

Strategy 11.3: Work with partners to develop regional and statewide recreational assets such as the Cross Vermont Trail or the Lamoille Valley Rail Trail.

Strategy 11.4: Advocate for the maintenance of visitor centers while exploring broader use of the public-private partnership model of travel services.

Strategy 11.5: Support the planning and operation of seasonal shuttle routes to mitigate localized episodic tourist-generated congestion.

Outreach Partners

GMT

VTRANS

Municipalities

Capstone

Shipping/Freight – State Freight Plan – How will our plan help implement

CVEDC

Mobility Committee

Green Mountain Scenic Byway/Mad River Scenic Byway

Bike and trail groups

MRVRPD – Mad River Moves Plan

EV charger planning – VTRans

Energy Elements in Transportation Chapter (provided by Sam, including Enhanced Energy Requirements)

Transportation: EV &EVSE (existing), EV-&EVSE-ready regs/policies, transportation sector use, analyses and targets (Enhanced Energy Plan components); implications of electrification; municipal fleet inventories, policy changes, goals re electrification, efficiency, reducing VMT, etc.

Statutory Requirements

State Requirements	CVRPC Goals & Strategies	Other Chapters
24 V.S.A. § 4348a (4) A transportation element which may consist of ...		
...present and prospective transportation and circulation facilities, and a map showing existing and proposed highways, including limited access highways, and streets by type and character of improvement, and where pertinent, anticipated points of congestion, parking facilities, transit routes, terminals, bicycle paths and trails, scenic roads, airports, railroads and port facilities, and other similar facilities or uses...	Goal 3; 3.1-3.8	
... recommendations to meet future needs for such facilities, with indications of priorities of need, costs, and method of financing.	Goal 4; 4.1-4.2	
24 V.S.A. § 4302(c)(4) To provide for safe, convenient, economic, and energy efficient transportation systems that respect the integrity of the natural environment, including public transit options and paths for pedestrians and bicyclers.	Goal 2; 2.1-2.2	
24 V.S.A. § 4302(c)(4)(A) Highways, air, rail, and other means of transportation should be mutually supportive, balanced, and integrated.	Goal 1; 1.1-1.3	
24 V.S.A. § 4302(c)(5)(C) To identify, protect, and preserve important natural and historic features of the Vermont landscape, including: significant scenic roads.	Goal 5; 5.1	
24 V.S.A. § 4302(c)(7) To make efficient use of energy, provide for the development of renewable energy resources, and reduce emissions of greenhouse gases.		
24 V.S.A. § 4302(c)(7)(A) General strategies for achieving these goals include increasing the energy efficiency of new and existing buildings; identifying areas suitable for renewable energy generation; encouraging the use and development of renewable or lower emission energy sources for electricity, heat, and transportation; and reducing transportation energy demand and single occupancy vehicle use.		Infrastructure Chapter

Project Timeline: August 2024 – March 2025 – 2025 CENTRAL VERMONT REGIONAL PLAN *UPDATED

STAFF ORGANIZATION	AUG 2024	SEPT	OCT	NOV	DEC	JAN 2025	FEB	MARCH	
DRAFT	Integrate (economy chapter): <ul style="list-style-type: none"> Business development and flood/climate change impact on the region. Economic development partnerships; retention of business Broader tax policy 	2 nd draft natural systems due Energy amendment and data crosswalk due	1 st draft energy chapter due Transportation chapter feedback integrated Economy chapter feedback integrated	1 st (2 nd mtg) draft energy chapter due 2 nd draft transportation chapter due Final chapter draft natural systems due	Final chapter draft infrastructure due 1 st draft housing chapter due Final chapter economy/working lands due	Final chapter draft transportation due 2 nd draft energy chapter due Housing chapter feedback integrated into 2 nd draft	2 nd draft housing chapter due 1 st draft land use chapter due Climate and resilience crosswalk in chapters	Final chapter draft energy due 1 st draft climate and resilience due	
						Training for land use regional plan Act 250 reform (tbd)			tbd
OUTREACH	Meeting with Central Vermont Economic Development Corporation (CVEDC)	Peter Gregory from TRORC to speak at monthly meeting on goal/strategy language	Training for land use regional plan Act 250 reform (anticipate)	Land use and housing planning outreach with municipalities	Land use and housing planning outreach with municipalities				
MEETINGS	Economy chapter review draft 1	Transportation chapter review draft 1	Energy chapter review draft 1	Energy chapter review draft 1 (2 nd mtg)	Housing chapter review draft 1	Housing chapter review draft 1 (2 nd mtg)	Land use chapter review draft 1	Climate and resilience chapter review draft 1	
MAPPING				Land use mapping	Land use mapping	Land use mapping	Future land use map inclusion		
DATA / INVENTORY	Checklist for crosswalk of old and new data/goals/strategies	Energy data and crosswalk for review	Transportation and infrastructure data inclusion	Energy data inclusion	Crosswalk of data for chapters in final draft form	Housing data inclusion	tbd	tbd	
FINAL			Natural systems final input integrated	Economy and infrastructure final input integrated	Transportation final input integrated		Energy final input integrated	Housing final input integrated	

*NOTE – Files for the regional plan will remain in OneDrive/TEAMS Channel > Regional Plan 2024.

Chapter Timeline

Chapters:	August 2024	Sept.	Oct.	Nov.	Dec.	Jan. 2025	Feb.	March
Natural Systems		★		★				
Energy			★	★		★		★
Infrastructure				★	★			
Transportation		★		★		★		
Housing					★	★	★	
Economy/ Working Lands	★		★		★			
Land Use							★	
Climate and Resilience								★

Housing final draft anticipated for April 2025
 Land use final draft anticipated for May 2025
 Climate and resilience final draft anticipated June 2025

Final draft of regional plan anticipated **June 2025**
 Involve/consult with municipalities and regional partners anticipate July-August 2025
 2026 Regional plan presented to board anticipated Sept 2025
 Public hearing process begins October
 Adoption (anticipate) by December 2025

★ Regional Plan Committee discussion – 1st draft (2 mtgs for some chapters)
 ★ Regional Plan Committee discussion – 2nd draft
 ★ Chapter draft final