



VTRANS INTERMODAL CONNECTIVITY REVIEW

A statewide review of ferry, train, and bus connections

Abstract

A coordinated statewide connectivity review intended to evaluate intermodal connections between public transit, passenger rail, and intercity bus, identify gaps, and develop short- and long-term solutions to improve access to all modes of transportation.

A Vermont Agency of Transportation Report
Prepared by AECOM

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Study Purpose

The purpose of this study is for the Vermont Agency of Transportation (VTTrans) to satisfy the conditions as requested by the Legislature in the Transportation Bill H.433 Sec. 32. COORDINATED INTERMODAL CONNECTIONS REVIEW:

The Agency, in coordination with public transit, passenger rail, and other transportation service providers, shall review and implement coordinate intermodal connections, to the extent practicable, to ensure efficient and accessible intermodal transportation opportunities in Vermont. The Agency shall also work with transportation service providers to support the cross promotion of intermodal connections.

Executive Summary

Introduction

Vermont's transportation landscape features many different transportation modes operating in rural and urban settings. A primarily rural state, Vermont has unique local, regional, and interstate transit needs, especially when it involves intermodal travel such as using local buses and Amtrak, or intercity bus and the Lake Champlain Ferry. Understanding that there are needs, the Vermont State Legislature directed VTrans to conduct a study that sought to review the existing intermodal conditions, to identify gaps in coverage and develop short and long-term solutions to improve access to all modes of transportation. This report summarizes the results of this study through reviewing several research tasks, including stakeholder engagement, a schedule analysis, and station site visits. Having established the parameters and conclusions drawn from each research element, the report then lists a series of local and statewide recommendations for improving connectivity. Lastly, it lists a prioritization of recommendations so that VTrans and policymakers can pursue initiatives to improve the availability, effectiveness, and efficiency of Vermont's multimodal transit connections.

Methodology

To achieve this goal, the project team conducted a four-part research project featuring a review of seven previously completed VTrans plans and studies, a stakeholder engagement survey and focus group, an analysis of existing schedule connectivity, and intermodal station site visits (Figure 1).

Results

The review of past studies demonstrated that the concentration of jobs in Vermont's urban environments increases transit demand, both locally and from rural regions. Additionally, some communities have effective service, but there is an opportunity to better communicate the service to the public. Separately from service coverage, multiple studies indicate that Vermonters rely on local and intercity buses to access passenger rail within Vermont, New York (Albany-Rensselaer Station), and Massachusetts (Greenfield Station). The stakeholder feedback augmented the initial study review by showing that while many Vermonters engage in intermodal travel, schedules and insufficient knowledge of the complete transit

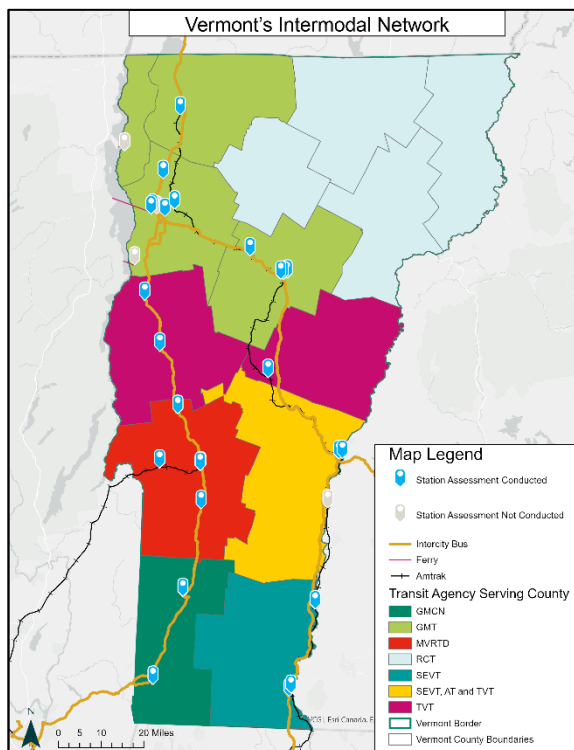


Figure 1. Vermont's Intercity Bus, Ferry, Amtrak, and Transit Agency Service Areas

network limit the volume of transit ridership. The schedule analysis corroborates information from the interviews as more than 30 percent of intermodal weekday connections involve wait times greater than one hour. Related to this point, local bus is more effective at connecting commuters to other modes. Finally, field visits highlighted the challenges associated with the lack of system knowledge and long waits. Many stations did not have adequate informative signage or waiting areas like benches or bus shelters.

Recommendations

As VTrans seeks to improve Vermont's intermodal network, the research and analysis revealed three classes of recommendations: overarching, capital, and service. Overarching recommendations focus on communication and system improvements at the state and regional levels, facilitating improved connections. Capital improvements focus on stop and station infrastructure elements, which would reduce barriers to connectivity. Similarly, service recommendations that would improve or create new connections are provided. These recommendations are prioritized using an index that factored three elements: the degree to which it was needed, the implementation complexity, and the estimated cost. The result is a targeted list of prioritized recommendations that VTrans can implement over the short term (within one year) and long term.

Existing Study Review

Overview

Recognizing that many past studies have examined Vermont's multimodal transit network, the project team conducted a detailed review of these studies, keeping an eye out for past evaluations regarding the gaps or connectivity issues between local buses, express services, and passenger rail. The project team reviewed seven reports, and this section includes a summary of each study's findings, as relevant to the parameters of this multimodal analysis. The range included reports from as far back as 2012 (Vermont Freight Plan) and as recent as 2021 (Ongoing 2021 Vermont Freight Plan).

Vermont Freight Plan (2012)

- The plan called for additional improvements to rail lines, allowing increased speeds and reliability for passenger rail and increased freight sizes for freight railroads (Figure 2).
- The plan emphasizes the need to ensure the continued viability of the Lake Champlain ferry system.



Figure 2. 2012 Vermont Freight Plan

Vermont Statewide Intercity Bus Study Update (2013)

- Middlebury, Rutland, Milton, St. Albans, and St. Johnsbury are not feasible for intercity bus service because of the number of transfers and the related excessive travel time (which includes the wait times associated with the many transfers).
- St. Johnsbury, St. Albans, and Rutland have no intercity bus service. However, Concord Coach indirectly serves St. Johnsbury residents in Littleton, NH, and Amtrak serves the latter two towns.
- Coordinated schedules between modes and expanded service hours for local transit could greatly improve the convenience and feasibility of using intercity bus service.
- Rutland and Castleton are the primary Amtrak stops located more than 25 miles from the intercity bus service.
- While transit systems may serve their local areas relatively well, traveling between regions and provider service areas is challenging.
- Physical facilities, such as intermodal terminals, increased signage, and information on transit schedules were identified as needs to promote connections between modes. Riders also requested additional park and ride lots.
- There have been past proposed service changes.
 - Run LINK Express to Middlebury, Montpelier, St. Albans, and local service routes.
 - Develop common intermodal facilities to service both the intercity carriers and the regional service.

Feasibility Study: Montpelier - St. Albans Commuter Rail Service (2017)

The Commuter Rail study focuses on proposing future rail services. While it did not discuss the current connection gaps between modes, it does establish the general demand for transit in the Montpelier to St. Albans corridor. This information is helpful in prioritization as it indicates that strategic transportation investments could increase transit demand along the corridor (Table 1).

Table 1. Existing and 2030 Low and High Growth

Segment	Direction of Commute	Daily Commuters		
		Typical Conditions	Ambitious Transit Focused Policies/Conditions	Aggressive Transit Focused Policies/Conditions
Montpelier to Burlington	Northbound	1,737	1,819	1,958
Burlington to Montpelier	Southbound	1,096	1,177	1,204
Segment Total		2,833	2,996	3,162
St. Albans to Burlington	Southbound	4433	5084	5394
Burlington to St. Albans	Northbound	548	583	619
Segment Total		5,981	5,667	6,013
Regional Total		7,814	8,664	9,175

(Source: Feasibility Study: Montpelier - St. Albans Commuter Rail Service)

2040 Vermont Long-Range Transportation Plan (2018)

- The Montpelier LINK commuter route is very popular.
- One popular intercity bus connection is the Vermont Shires Connector, which provides Bennington county residents access to Amtrak’s Albany-Rensselaer station.
- Restoration of passenger rail service to Montreal and expansion of the Ethan Allen Express to Burlington are among the top rail priorities for Vermont.
- Greenfield, MA, and its Valley Flyer Amtrak service is a connection opportunity for those living and working in and around Brattleboro.

VTrans Public Transit Policy Plan (2020)

- There is generally a lack of transit access in rural parts of the state, and the issue is compounded by Vermont's aging population, which is expected to grow by 60 percent in the coming years.
- Labor trends are shifting, with job growth concentrating in the northwest portion of the state (Chittenden County). Simultaneously, commute distances are increasing for the rest of the state, increasing the importance of long-distance transportation for vulnerable populations.
 - One proposed solution includes running limited late-night or third shift services for workers.
- Public perception and knowledge of public transit options are inconsistent. Many people in rural communities are unaware of the services available. Chittenden County might be the exception, as many are aware of their service but unaware about its connections.

Vermont State Rail Plan (2021)

- There is a need to enhance bus connections to existing Amtrak stations (Figure 3). Nine of the twelve Amtrak stations in Vermont (including Claremont, New Hampshire) are close to fixed route bus service, but schedules may not match in a useful, reliable manner.
- There are two opportunities for connectivity improvements:
 - A connection from the new Vergennes/Ferrisburgh station to Vergennes along Route 22A; and
 - A connection in Castleton between the Amtrak Station and the Marble Valley Regional Transit District's Fair Haven Route bus stop (~ 0.3 miles).
- One proposal for future service would involve running a second Ethan Allen route through Albany and southern Vermont. Such a service would require additional connections to local and regional bus services.



Figure 3. Vermont Rail Plan Cover

Vermont Freight Plan (2021 – Ongoing)

- One initiative would involve connecting the Ethan Allen Express (Burlington Terminal) with the Vermonter (Essex Junction Terminal).
- The plan also proposes increasing Vermonter speeds to 79 MPH.

Key Findings

Several key findings were consistent in multiple documents. Mainly, the concentration of jobs in Vermont's urban environments increases transit demand in these places. This noted, the concentration also draws more commuters from rural areas with limited public transit options for regional travel. This is particularly noteworthy when one transfers from one transit system to another. In some instances, communities have effective service, but it is not well communicated to the local population. Separately from service coverage, multiple studies indicate that Vermonters rely on local and intercity buses to access passenger rail within Vermont and New York (Albany- Rensselaer Station) and Massachusetts (Greenfield Station).

Stakeholder Engagement

Overview

Following a review of past projects, the team pivoted to focus on understanding Vermont's multimodal connection experience through the perspective of local and regional stakeholders. Two public engagement methods were used: an online outreach survey and in-depth interviews. Given that this study operated statewide, the project team sought feedback from regional and statewide stakeholders who had detailed knowledge of the transit and rail experience in multiple communities. This section outlines the results of this stakeholder engagement effort.

Stakeholder Interviews

Stakeholder interviews allowed the project team to engage in a dialogue with Vermont's transit and transit-adjacent stakeholders. Recognizing the study's geographical context, the project team reached out to the following regional transit and transit-adjacent stakeholders:

- Vermont Agency of Transportation (VTrans);
- Transportation service providers;
- Vermont Association of Planning and Development Agencies;
- Vermont Rail Advisory Council;
- Public Transit Advisory Council; and
- Go! Vermont.

Individuals were invited via email to participate in an interview session. The interview session featured a blend of pre-planned questions and a series of follow-up questions that were informed by stakeholder responses.

Response Summary

Interviews with stakeholders indicated that there were opportunities for improved Amtrak and local/express bus services. In some instances, connections did not exist between the services because there is a perceived limit in bus-to-rail demand. One exception occurs in southwest Vermont, as many people use transit to access the nearby Albany-Rensselaer Amtrak station. This noted, interviewees indicated that northbound Amtrak Vermonter service on weekends could be better synced up with bus schedules. Additionally, some indicate that there is an opportunity for improved bus connections to the Montpelier Transit Center, as many people in the region use transportation network companies (TNCs) for travel. There is currently a 7:00 PM train arriving in Montpelier, which could be a target connection for buses. Beyond these locations, Bellows Falls was mentioned as a location for additional collaborations in an interview.

Stakeholder Survey

Understanding that many transit- and transit-adjacent stakeholders had conflicting responsibilities, the project team developed an online survey that could be distributed to various stakeholders. The survey was designed to take five minutes to complete, and it asked respondents the following questions:

- What is your relationship with Vermont's bus/rail network?
- Where in Vermont is it easy to connect between passenger rail/intercity bus and local transit?
- What makes this connection so easy?
- Where in Vermont is it difficult to connect between passenger rail/intercity bus and local transit?
- What makes this connection difficult?
- Are some of these challenges more pressing than others? Which connectivity gaps would you like to see prioritized?

Locations with established schedules for transit which complement the timing of arrivals and departures of train/intercity bus routes allows someone to be confident that you can make a connection.

-Survey response

The survey was distributed to stakeholders on Friday, November 19, 2021, and remained open for responses until December 9, 2021. In total, 14 individuals responded to the survey. Following its completion, answers were amalgamated and analyzed.

Response Summary

Survey responses largely align with information learned during the review of previous studies, in-person observations, and schedule analysis. Many survey respondents focused on the state's rail connections with neighboring communities and local buses. Several survey respondents indicated that the existing bus schedules are incompatible with Amtrak service. Specifically, survey respondents focused on three rail components: schedules, station access, and system knowledge.

In terms of schedules, several respondents indicated that the evening Amtrak Vermonter service arrives after most local bus services finish operations. Similarly, Vermonter delays are challenging for connections as providers find it difficult to properly time service. The experience on the Amtrak Ethan Allen service is similar, though some people note that the intercity service bringing residents to the Amtrak station in Albany is very easy to use. Some felt that current routes may be inefficient or non-direct between stations in terms of station access. One comment discussed how bus service to Rutland is ineffective as the station is locked when the morning bus arrives, denying a user a comfortable place to wait. Finally, several survey responses indicated that a gap in traveling from bus to train is that individuals may not know there is an option to transfer. Some note that the built environment is confusing at stations, and wayfinding improvements could help users learn that transit is an option. Thinking beyond bus-

rail connections, general survey comments indicated that connections are difficult regardless of the two modes involved.

Key Findings

There are several common themes and comments in the survey and focus groups.

- Traditionally pre-pandemic, many people in southeast Vermont used the Vermont-Shires connector to access several Amtrak services in Albany (Figure 4). This route has since been combined with the VT Translines Route 7. The morning Route 7 schedule arrives/departs from the Albany train station within 20 minutes of an Amtrak route to/from New York City. The afternoon Route 7 trip has a 45-65 minute transfer wait time to/from Amtrak.
- Existing bus-to-rail connections along the Vermonter corridor are limited by scheduling, as many local providers end service before northbound trains arrive.
- Amtrak delays limit the ability for transit operators to provide an effective intermodal connection¹. Backup options for last mile connections could include ridesharing services.
- System knowledge is inconsistent amongst users, and minor enhancements, such as installing wayfinding or displaying schedules, could encourage additional ridership.
- Vermont's urban communities with intercity bus networks, including Montpelier, have opportunities for meaningful connection improvements.
- Rural areas and places with limited regional bus/rail services are a connection challenge as few alternative services exist.



Figure 4. Existing Signage for Combined Intercity Bus Service to Albany

¹ Prior to the COVID-19 pandemic, Amtrak provided a GRAMPS shuttle from Killington to Rutland. The shuttle has not been reinstated and is now a need.

Schedule Analysis

Overview

In addition to a review of past plans and a public engagement campaign, the project team also analyzed the existing bus, train, and ferry schedules to identify the current connection conditions for system users. The analysis process involved reviewing schedules for all transportation mode services and conducting an analysis that focused on the following elements:

- Number of stations with an intermodal connection;
- Trips that can include an intermodal connection;
- Average wait time for a connection; and
- Local transit service areas.

Analysis results yielded information that supports findings in past VTrans plans/studies and the public outreach portion of this study. A summary of these specific findings, including several charts and graphs, is provided below.

Analysis Summary

There were 28 bus stations/stops serviced by at least one rail, ferry, and/or intercity bus service (Figure 1 on page 14)². Stations included several intermodal combinations, including the following:

- 24 had at least one intermodal connection;
- 4 were not served by local or commuter bus;
- 2 rail stations also had intercity service; and
- There were 3 ferry stations but only 1 was served by local or commuter bus.

Stations exist in urban, rural, and suburban contexts, and these different settings create a range of variability in terms of intermodal connectivity. For example, while 72 percent of system-wide weekday trips make a connection, individual stations vary from 100 percent (Burlington Lake Champlain Ferry Terminal) to as low as 25 percent (St. Albans) of weekday trips resulting in a connection. One reason for this lower connection rate is that many intercity services (rail and bus) operate outside the local transit provider's service span. Additionally, many local service providers operate at low frequencies during mid-day hours, leading to wait times in excess of 6 hours. While there are many connections with excessive wait times, the overall system average is 81 minutes on weekdays, 59 minutes on Saturdays, and 73 minutes on Sundays (Figure 5).

² Information on bus ridership can be found in the [VTrans Public Transit Route Performance Report \(2020\)](https://vtrans.vermont.gov/sites/aot/files/publictransit/documents/Public%20Transit%20Route%20Performance%20Review%202020.pdf).
<https://vtrans.vermont.gov/sites/aot/files/publictransit/documents/Public%20Transit%20Route%20Performance%20Review%202020.pdf>

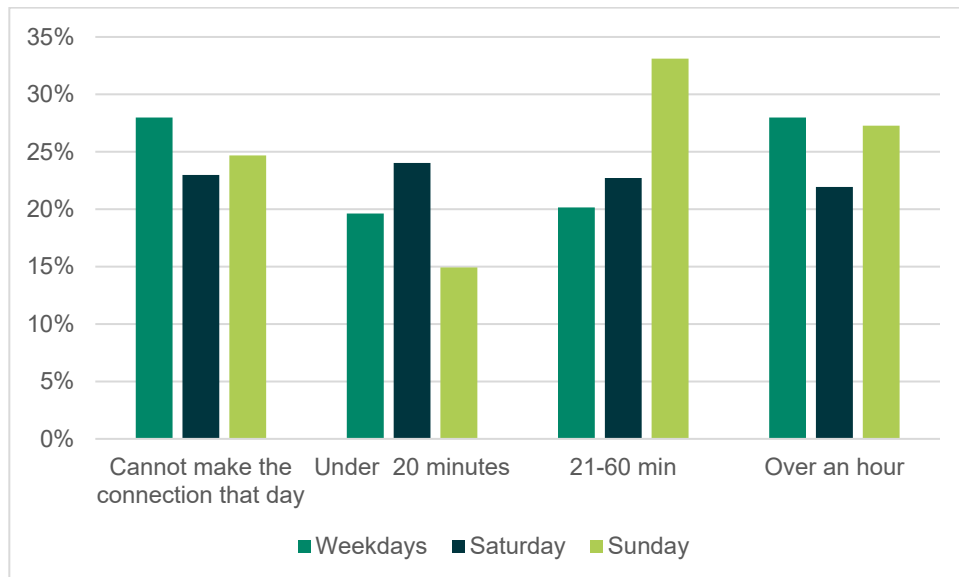


Figure 5. System-Wide Connection Wait Times

Except for the Lake Champlain Ferry, all intermodal connections involve a local bus and Amtrak or an intercity bus. From a schedule connectivity perspective, there are some similarities and differences between intercity and Amtrak services. Both services have connections to local/commuter routes, and the differences lie in wait times and potential connections. Amtrak has a slightly shorter weekday wait time at stations than intercity (1:21 vs. 1:30) but has a higher percentage of trips (33 percent vs. 29 percent) that cannot make the connection.

In terms of weekend service, the services differ based on the day. On Saturdays, a larger percentage of intercity bus trips (24 percent) fail to connect (17% for Amtrak trips). Additionally, the wait time for the intercity bus is slightly shorter (approximately 9 minutes). On Saturdays, 83 percent of Stations served by rail and 76 percent by intercity bus have local/commuter bus service. On Sundays, this decreases to 63 percent for rail and 36 percent for intercity. While rail stations are more likely to have local/commuter service on Sundays, there are significantly greater wait times (134 minutes for rail versus 81 minutes for intercity) and a greater percentage of connections that cannot be made.

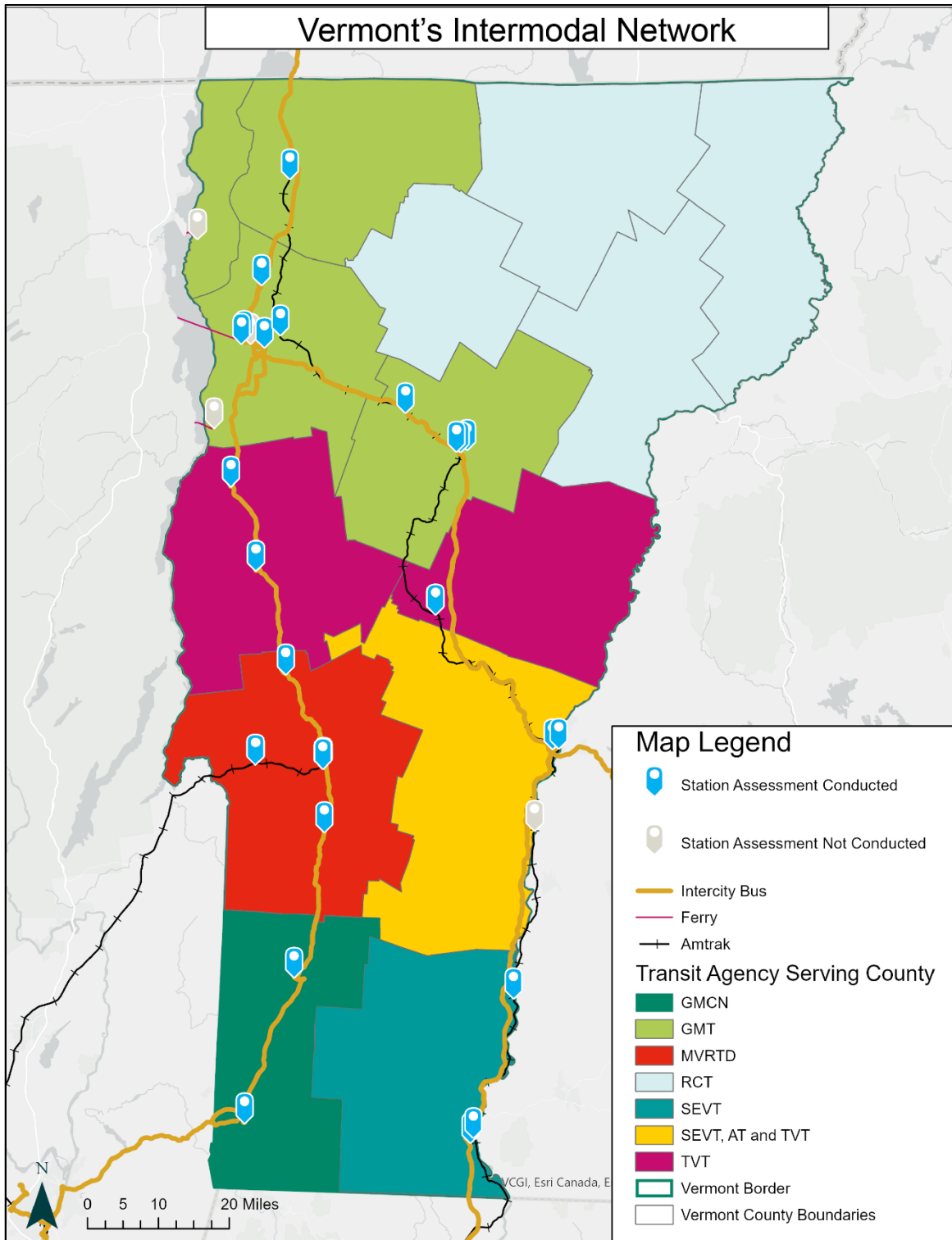


Figure 1. Vermont's Intercity Bus, Ferry, Amtrak, and Transit Agency Service Areas

Key Findings

There are several notable takeaways from the schedule analysis, many of which align with information gleaned from the study review and public outreach component:

- Intercity bus does not typically stop at rail stations.
- 14.2 percent of all intermodal stations/stops have no weekday local/commuter bus service.
- 37.5 percent of all intermodal stations/stops have no weekday local/commuter bus service on Saturday.
- 62.5 percent of all intermodal stations/stops do not have local/commuter bus service on Sunday.
- Montpelier has the best connection times on weekdays and Saturdays (Train Station, Park and Ride, and Downtown) because of the microtransit service.
- Stops served by intercity buses have a higher prevalence of having Saturday local bus service than those served by Amtrak, but it is the opposite on Sundays. Many systems that serve the intercity stops offer Saturday service but not Sunday.
- While Sunday local bus service is more likely to operate at rail stations, the connection times do not line up, creating much longer wait times than at intercity bus stations.
- Commuter routes are geared towards bringing people into the business center in the morning and away in the afternoon. Overall, times are unfavorable for creating intercity and rail services connections. Local routes are the more effective connection option as they operate more frequently throughout the day. Seven stations are served by commuter bus routes but have no local service.
 - Burlington displays this difference as the average weekday wait time for all buses is 91 minutes whereas the average weekday wait time for only local buses is 31 minutes.
- The second VT Translines Route 7 northbound cannot connect to any local routes as it arrives after local service has ended (the first NB arrival in VT is at 9:00 PM in Bennington and last at 1:04 AM in Colchester).

Station Impact Assessments

Introduction

In addition to stakeholder outreach and schedule analysis, members of the project team conducted in-person site visits at select intermodal stations across Vermont. The purpose of these site visits was to understand the on-the-ground conditions experienced by system users.

Observation Approach

To assess the different stations, the team identified all intercity, rail, and ferry stops, stations, and docks within Vermont. The locations were classified into two groups: those with intermodal connections (24 total) and those without a connection (4 total). On October 27, 2021, the project team visited all 24 stations (profiles can be found on pages 18 through 41). They made note of the following elements at each station:

- Transit services available;
- Availability of schedule, fare, and location information for each service mode;
- On-site amenities;
- Wayfinding leading up to the stop/station/dock;
- Ease of connection between modes;
- Other general notes such as perception of safety, etc.; and
- Population demographics (Table 2).

Following the observations, information on each station was aggregated and analyzed to develop existing connectivity conditions for individual stations and the state as a whole.

Table 2. Ferry, Rail, and Intercity Bus Population Demographics

Population Demographics			
Station	Town	Total Population per Square Mile	Total Jobs per Square Mile
Bellows Falls	Rockingham	115.04	47.57
Bennington	Bennington	363.02	231.48
Brandon	Brandon	102.87	27.46
Brattleboro Shell	Brattleboro	373.05	332.60
Brattleboro Train Station	Brattleboro	373.05	332.60
Burlington DTC	Burlington (city)	2891.45	2127.41
Burlington Ferry Dock	Burlington (city)	2891.45	2127.41
Castleton	Castleton	105.28	45.32
Colchester	Colchester	299.82	170.42
Essex Junction	Essex	560.36	287.44
Ferrisburgh	Ferrisburgh/Vergennes (city)	81.58	40.55

Manchester	Manchester	107.23	87.50
Middlebury	Middlebury	230.87	209.58
Montpelier Dog River Park & Ride	Montpelier (city)	787.69	703.10
Montpelier DT	Montpelier (city)	787.69	703.10
Montpelier/Berlin	Montpelier (city)/Berlin	232.44	270.72
Randolph	Randolph	99.22	49.51
Rutland	Rutland (city)	2062.12	1739.38
South Burlington (airport)	South Burlington (city)	686.81	685.46
St. Albans	St Albans (city)	3512.84	2224.07
Wallingford	Wallingford	49.12	6.28
Waterbury/Stowe	Waterbury/Stowe	107.14	57.78
White River Junction Skyes Mt. Ave.	Hartford	232.69	260.93
White River Junction Train	Hartford	232.69	260.93
Burlington University Heights*	Burlington	2891.45	2127.41
Charlotte*	Charlotte	77.65	11.83
Grand Isle*	Grand Isle	59.37	7.34
Windsor/Mt. Ascutney*	Windsor	180.34	79.00

Data Sources: Vermont Open Data & 2020 US Census (Population), Vermont Open Data & US Census Longitudinal Employer-Household Dynamics 2019 (Jobs)

* Station/stop does not have intermodal connections and a field visit was not conducted.

Bellows Falls

54 Depot St, Bellows Falls, VT 05101



Modes Served

Intercity	Greyhound
Rail	Vermont
Ferry	N/A
Commuter Bus	SEVT
Local Bus	SEVT

04

Local and
Commuter Bus
Routes Service
the Stop

Signage	Amenities	Wayfinding Information
The area does not have traditional Amtrak signage. There is a Greyhound sign.	There is an indoor waiting area for Amtrak with limited hours. The Amtrak station contains Greyhound information as well. There is Greyhound info on how to access schedules via phone.	There is Amtrak wayfinding signage that directs cars towards station. Signage exists 0.5 miles away.

Local/Commuter Bus Connections

Local bus exists approximately 1,200 feet away from the Amtrak/Greyhound station. There is no wayfinding signage between the station and local bus.	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✓
	Schedule Information	✓
	Contact info (website, email, phone number or app) on how to get schedule info	✓
	Fare information	✗
Other	✗	

Intermodal connections and wait times between local/commuter bus

Weekday	Saturdays	Sundays
Average wait time: 2:00 Less than 20 minute wait: 0 (0%) 21-60 minute wait: 4 (17%) 1-6 hour wait: 11 (46%) Trips with no connections: 9 (38%)	There is no Saturday local/commuter service.	There is no Sunday local/commuter service.

Areas of concern/opportunities for improvement

- Install additional Amtrak signage which indicates where passengers should wait for trains.
- Improve pedestrian wayfinding between the train/intercity/local bus stops.
- Install bench at local stop.
- Install signage leading up to station that indicates served by intercity bus.
- Provide intercity fare information.
- Provide fare information at the local bus stop.
- Extend local and commuter bus hours to align with evening Vermont service and morning Greyhound service.
- Increase midday local and commuter service to align with intercity bus and Amtrak schedules.
- Implement weekend local/commuter service.
- Reduce redundancy in the PM between Bellows Falls and Brattleboro on the Route 53 and Vermont northbound.

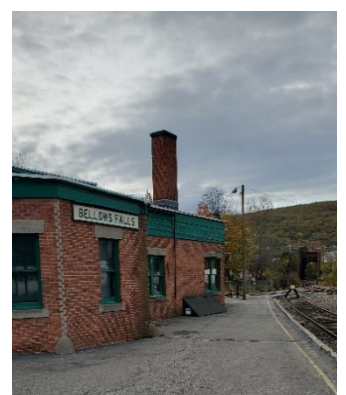


Figure 6. Current Amtrak Platform

Bennington

215 Pleasant St, Bennington, VT 05201

Modes Served

Intercity	VT Translines & Yankee Trails
Rail	N/A
Ferry	N/A
Commuter Bus	SEVT & GMCN
Local Bus	GMCN

07

Local and
Commuter Bus
Routes Service
the Stop



Image Source: Google Maps

Signage	Amenities	Wayfinding Information
There is no signage for intercity bus service.	There is a local bus building with a waiting room for local service that intercity users can use. The building was closed at the time of observation, but it is possible	There is wayfinding service for cars. Signage existed approximately 0.25 miles from the stop.

Local/Commuter Bus Connections

The main office for GMCN is located on site and it is very clear where busses pick individuals up. There is a parking lot nearby as well.	Bus Stop Amenities		
	Bus stop sign	✓	
	Information on bus routes servicing stop	✓	
	Schedule Information	✓	
	Contact info (website, email, phone number or app) on how to get schedule info	✓	
	Fare information	✓	
Other: electric car charging stations			✓
Intermodal connections and wait times between local/commuter bus			
Weekday	Saturdays	Sundays	
Average wait time: 1:37 Less than 20 minute wait: 14 (13%) 21-60 minute wait: 26 (23%) 1-6 hour wait: 41 (37%) Trips with no connections: 31 (28%)	Average wait time: 1:33 Less than 20 minute wait: 3 (13%) 21-60 minute wait: 6 (25%) 1-6 hour wait: 5 (21%) Trips with no connections: 10 (42%)	There is no Sunday commuter/local service.	

Areas of concern/opportunities for improvement

- Install intercity bus signage including schedule, fare, and contact information.
- Install real-time arrival and departure screens.
- Extend evening local service hours on Saturdays to allow for a connection with VT Translines.
- Extend evening local service hours on Weekdays to allow for connection with Yankee Trails.
- Improve midday and early afternoon connections between intercity and local bus connections such as the weekday Emerald Line and weekend Orange Line.
- Provide Sunday local and commuter bus service.



Figure 7. Sample Display Sign
(Source: E Ink)

Brandon

16 Park St, Brandon, VT 05733

Modes Served

Intercity	VT Translines
Rail	N/A
Ferry	N/A
Commuter Bus	MVRTD & TVT
Local Bus	N/A

01

Local and
Commuter Bus
Routes Service
the Stop



Signage	Amenities	Wayfinding Information
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There is no signage for intercity service.

While no formal waiting areas exists, there is a gazebo near the stop, meaning individuals could wait there.

There is no wayfinding signage for intercity bus.

Local/Commuter Bus Connections

<p>There is a sign near the town green parking lot that indicates the space is for the bus and for persons with disabilities. This can be vague as to whether it is for ADA parking or for a bus, or both. Like intercity, the nearby gazebo could act as a shelter. It is very close to the expected intercity stop meaning there is a direct connection between the two services.</p>	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✗
	Schedule Information	✗
	Contact info (website, email, phone number or app) on how to get schedule info	✗
	Fare information	✗
Other	✗	

Intermodal connections and wait times between local/commuter bus

<u>Weekday</u>	<u>Saturdays</u>	<u>Sundays</u>
<p>The Rutland Middlebury Connector and VT Translines both operate along the Route 7 corridor. Trips are spaced except morning SB connector trip departs within 30 mins of VT Translines in the same direction.</p>	<p>The Rutland Middlebury Connector and VT Translines both operate along the Route 7 corridor. Schedules are spaced out.</p>	<p>There is no Sunday local/commuter bus service.</p>

Areas of concern/opportunities for improvement

- Install intercity bus signage which includes schedule, fare and contact information.
- Station could use additional commuter bus signage including route, fare, schedule, and contact information. This signage should be separate from an ADA parking sign.
- Reduce redundancy in the AM between the Connector and VT Translines SB weekdays.
- Implement local feeder service for the stop on weekdays and weekends.
- Implement Sunday service.



Figure 8. Existing Bus and ADA Sign.

Brattleboro Shell

429 Canal St, Brattleboro, VT 0530

Modes Served

Intercity	Greyhound
Rail	N/A
Ferry	N/A
Commuter Bus	SEVT
Local Bus	SEVT

02

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
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There is no signage for the stop aside from a paper posting with baggage information.

There are no amenities for this stop.

No wayfinding information exists.

Local/Commuter Bus Connections

There is a local bus connection though a formal location is not identified.	Bus Stop Amenities	
	Bus stop sign	X
	Information on bus routes servicing stop	X
	Schedule Information	X
	Contact info (website, email, phone number or app) on how to get schedule info	X
	Fare information	X
Other	X	

Intermodal connections and wait times between local/commuter bus

Weekday	Saturdays	Sundays
Average wait time: 1:01	Average wait time: 0:53	Average wait time: 1:32
Less than 20 minute wait: 1 (13%)	Less than 20 minute wait: 1 (13%)	Less than 20 minute wait: 0 (0%)
21-60 minute wait: 3 (38%)	21-60 minute wait: 0 (0%)	21-60 minute wait: 0 (0%)
1-6 hour wait: 2 (25%)	1-6 hour wait: 4 (50%)	1-6 hour wait: 2 (50%)
Trips with no connections: 2 (25%)	Trips with no connections: 3 (38%)	Trips with no connections: 2 (50%)

Areas of concern/opportunities for improvement

- Install additional intercity bus signage with schedule, fare, and contact information.
- Install local bus stop location, schedule, fare, and contact information.
- Install bus shelters for intercity and local bus service.
- Install seating at the local bus stop.
- Provide wayfinding for vehicles leading up to station.
- Begin morning commuter bus service earlier (weekdays and weekends) to allow for a connection with northbound intercity service.
- End evening commuter bus service hours later (weekdays and weekends) to allow for a connection with southbound intercity service.
- Increase midday services on weekdays to allow for decreased wait times between local and intercity service.
- Increase weekend midday commuter service to create a connection with intercity services.

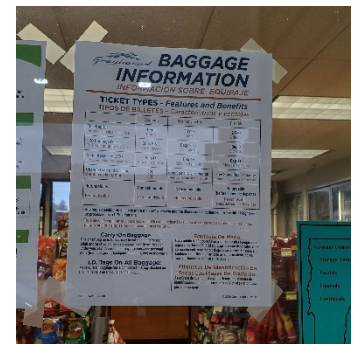


Figure 9. Current Greyhound Signage

Brattleboro

10 Vernon Road Brattleboro, VT 05301

Modes Served

Intercity	N/A
Rail	Vermont
Ferry	N/A
Commuter Bus	SEVT
Local Bus	SEVT

05

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
<p>There is some station signage though it is limited in size/visibility.</p>	<p>There is a waiting area open an hour before the train arrives. Inside the station is information on how to obtain schedule info online.</p>	<p>There is vehicle wayfinding but none for pedestrians.</p>

Local/Commuter Bus Connections

<p>There is a local bus stop at the station and the transit hub is 900 feet away. The local stop is visible from the train station though there is not any formal wayfinding in place.</p>	Bus Stop Amenities (transit hub)	
	Bus stop sign	✓
	Information on bus routes servicing stop	✓
	Schedule Information	✓
	Contact info (website, email, phone number or app) on how to get schedule info	✓
	Fare information	✓
Other	✓	

Intermodal connections and wait times between local/commuter bus

Weekday	Saturdays	Sundays
<p>Average wait time: 0:56 Less than 20 minute wait: 5 (16%) 21-60 minute wait: 16 (50%) 1-6 hour wait: 9 (28%) Trips with no connections: 2 (6%)</p>	<p>Average wait time: 1:00 Less than 20 minute wait: 5 (23%) 21-60 minute wait: 7 (32%) 1-6 hour wait: 7 (32%) Trips with no connections: 3 (14%)</p>	<p>Average wait time: 2:38 Less than 20 minute wait: 0 (0%) 21-60 minute wait: 0 (0%) 1 -6 hour wait: 3 (75%) Trips with no connections: 1 (25%)</p>

Areas of concern/opportunities for improvement

- Replace existing Amtrak signage with new, easier-to-identify signs that better communicate where the platform and station are located.
- Improve wayfinding between the Amtrak platform and local/commuter bus stop hub.
- Provide train schedule, fare, and contact information that is visible outside the station waiting area.
- Extend Amtrak station hours.
- Extend local bus service (weekdays and weekends) to align with evening Amtrak arrivals.
- Reduce redundancy in the PM between Bellows Falls and Brattleboro on the Route 53 and Vermonter northbound.



Figure 10. Bus Stop at Train Station

Burlington @ Lake Champlain

1 King Street Dock, Burlington, VT 05401

Modes Served

Intercity	N/A
Rail	N/A
Ferry	Lake Champlain
Commuter Bus	N/A
Local Bus	GMT

01

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
---------	-----------	------------------------

<p>The area is well signed, and it is easy to determine that one is at the ferry.</p>	<p>Information on obtaining schedule and fares information is available.</p>	<p>There is adequate wayfinding signage both for pedestrians and vehicles.</p>
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Local/Commuter Bus Connections

<p>There is a local bus stop approximately 700 feet away from the stop. There is a safe path for pedestrian access and there is some wayfinding signage directing bus riders to the ferry but not vice versa. General wayfinding signage in the nearby downtown directs people to the transit center.</p>	Bus Stop Amenities	
	Bus stop sign	X
	Information on bus routes servicing stop	X
	Schedule Information	X
	Contact info (website, email, phone number or app) on how to get schedule info	X
	Fare information	X
Other	X	

Intermodal connections and wait times between local/commuter bus

<p>Weekday Average wait time: 0:07 Less than 20 minute wait: 8 (100%) 21-60 minute wait: 0 (0%) 1-6 hour wait: 0 (0%) Trips with no connections: 0 (0%)</p>	<p>Saturdays Average wait time: 0:07 Less than 20 minute wait: 8 (100%) 21-60 minute wait: 0 (0%) 1-6 hour wait: 0 (0%) Trips with no connections: 0 (0%)</p>	<p>Sundays Average wait time: 0:22 Less than 20 minute wait: 4 (50%) 21-60 minute wait: 4 (50%) 1-6 hour wait: 0 (0%) Trips with no connections: 0 (0%)</p>
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Areas of concern/opportunities for improvement

- Improve wayfinding directing ferry passengers to the local bus stop.
- Install local bus signage with schedule, fare, and contact information.
- Install bench at local stop.



Figure 11. Ferry Wayfinding Signage

Burlington Downtown Transit Center (DTC)

101 Queen City Park Road, Burlington, Vermont 05401

Modes Served

Intercity	VT Translines, Greyhound, Megabus
Commuter Bus	TVT & GMT
Local Bus	GMT

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Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
There are signs indicating where Greyhound and Megabus stop. There is no VT Translines signage. These signs are limited in scale.	There are no intercity specific facilities, though the larger DTC has an indoor waiting room.	There is wayfinding signage in Burlington that directs pedestrians and motorists to the general bus station.

Local/Commuter Bus Connections

The DTC is well signed with plenty of wayfinding guiding pedestrians to the site. There are many bus bays with digital display screens. Additionally, there is a digital map with screens that provide information for Greyhound and Megabus. There is no information for VT Translines.	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✓
	Schedule Information	✓
	Contact info (website, email, phone number or app) on how to get schedule info	✓
	Fare information	✓
Other: Nearby food options	✓	
Intermodal connections and wait times between local/commuter bus		
<p>Weekday</p> <p>Average wait time: 1:31</p> <p>Less than 20 minute wait: 52 (97%)</p> <p>21-60 minute wait: 29 (16%)</p> <p>1-6 hour wait: 52 (29%)</p> <p>Trips with no connections: 49 (27%)</p>	<p>Saturdays</p> <p>Average wait time: 0:37</p> <p>Less than 20 minute wait: 37 (38%)</p> <p>21-60 minute wait: 33 (34%)</p> <p>1-6 hour wait: 14 (14%)</p> <p>Trips with no connections: 14 (14%)</p>	<p>Sundays</p> <p>Average wait time: 1:05</p> <p>Less than 20 minute wait: 13 (15%)</p> <p>21-60 minute wait: 42 (50%)</p> <p>1-6 hour wait: 13 (15%)</p> <p>Trips with no connections: 16 (19%)</p>

Areas of concern/opportunities for improvement

- Install additional intercity signage with schedule and fare information.
- Update existing wayfinding signage (boarding map) to include VT Translines information.
- Install real-time intercity arrival and departure screens or add schedules to existing screens.
- Improve connections between commuter and intercity routes by aligning evening service with the intercity service.
- Increase midday commuter trips to reduce wait times for afternoon/evening intercity service.
- Start commuter/local busses earlier or provide alternative service model to allow for a morning VT Translines connection.
- Run commuter/local service later and/or provide an alternative service model to allow for an additional VT Translines connection.
- Reduce redundancy in the PM between Burlington LINK and VT Translines NB weekdays and mid-day SB on Saturdays.

Castleton

266 Main Street Castleton, VT 05735-7716

Modes Served

Intercity	N/A
Rail	Ethan Allen
Ferry	N/A
Commuter Bus	MVRTD
Local Bus	N/A

01

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
<p>There is station signage visible from the road. It is clearly marked. Station parking is marked as it is a shared location with other entities.</p>	<p>There is a waiting room and it is open 2 hours prior to train arrivals.</p>	<p>Signage exists for cars starting approximately 0.5 miles from the station.</p>

Local/Commuter Bus Connections

<p>There is a commuter bus servicing the station across Route 44 (50 feet from the station). Car speeds are very fast and there is no crosswalk. It could be dangerous for all pedestrians, especially vulnerable populations.</p>	Bus Stop Amenities	
	Bus stop sign	X
	Information on bus routes servicing stop	X
	Schedule Information	X
	Contact info (website, email, phone number or app) on how to get schedule info	X
	Fare information	X
Other	X	
Intermodal connections and wait times between local/commuter bus		
<p>Weekday Average wait time: 0:52 Less than 20 minute wait: 0 (0%) 21-60 minute wait: 3 (38%) 1-6 hour wait: 1 (13%) Trips with no connections: 4 (50%)</p>	<p>Saturdays Average wait time: 1:19 Less than 20 minute wait: 0 (0%) 21-60 minute wait: 1 (13%) 1-6 hour wait: 3 (38%) Trips with no connections: 4 (50%)</p>	<p>Sundays Average wait time: 2:34 Less than 20 minute wait: 1 (13%) 21-60 minute wait: 0 (0%) 1-6 hour wait: 5 (63%) Trips with no connections: 2 (25%)</p>

Areas of concern/opportunities for improvement

- Install commuter bus signage including schedule, fare and contact information.
- Install bench at local stop.
- Install signage that provides Amtrak waiting room, schedule, fare, and contact information.
- Improve wayfinding between the Amtrak station and commuter bus stop.
- Improve the built environment connecting the two modes.
- Expand Amtrak waiting room hours.
- Begin commuter bus service at an earlier hour to allow for Amtrak connections on weekdays and weekends.
- End local commuter service at a later hour to allow for Amtrak connections on weekdays and weekends.



Figure 12. Current Amtrak Platform

Colchester Park & Ride

400 US-7, Colchester, VT 05446

Modes Served

Intercity	VT Translines
Rail	N/A
Ferry	N/A
Commuter Bus	GMT
Local Bus	N/A

01

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
<p>There are signs indicating the stop is a park and ride for busses, but no specific intercity signage.</p>	<p>There is no schedule information but there is a bus shelter and bike rack.</p>	<p>Signage on the road indicates there is a park and ride. Signage exists approximately .5 miles away. There is no on-site intercity signage.</p>

Local/Commuter Bus Connections

<p>There is a bus shelter as well as a bike rack. Signage indicates the bus stops there. It is easy to identify this location from the parking area of the park and ride.</p>	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✓
	Schedule Information	✓
	Contact info (website, email, phone number or app) on how to get schedule info	✓
	Fare information	✗
Other: bike rack	✓	

Intermodal connections and wait times between local/commuter bus

<u>Weekday</u>	<u>Saturdays</u>	<u>Sundays</u>
Average wait time: 1:46 Less than 20 minute wait: 2 (25%) 21-60 minute wait: 0 (0%) 1-6 hour wait: 1 (13%) Trips with no connections: 5 (63%)	There is no weekend commuter bus service.	There is no weekend commuter bus service.

Areas of concern/opportunities for improvement

- Install intercity bus signage including schedule, fare, and contact information.
- Provide earlier morning transit service to connect with VT Translines morning southbound trip.
- Provide later evening transit service to connect with VT Translines evening northbound trips.
- Increase midday commuter bus service to create a connection with midday VT Translines service.
- Run weekend commuter service.



Figure 13. Bike Rack On-site

Essex Junction-Burlington

29 Railroad Avenue, Essex Junction, VT 05452

Modes Served

Intercity	N/A
Rail	Vermont
Ferry	N/A
Commuter Bus	N/A
Local Bus	GMT

02

Local and
Commuter Bus
Routes Service
the Stop



Signage	Amenities	Wayfinding Information
Signage exists outside the station.	Schedule information available inside the station. There is a station waiting area.	Pedestrian wayfinding signage exists on a downtown information board.

Local/Commuter Bus Connections

Travel to the bus was limited and the current construction makes it difficult to assess the connection. Busses appeared to stop right at the train station meaning a connection required minimal additional travel.	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✗
	Schedule Information	✗
	Contact info (website, email, phone number or app) on how to get schedule info	✗
	Fare information	✗
Other	✗	

Intermodal connections and wait times between local/commuter bus

Weekday	Saturdays	Sundays
Average wait time: 0:38	Average wait time: 0:40	Average wait time: 0:44
Less than 20 minute wait: 4 (33%)	Less than 20 minute wait: 3 (25%)	Less than 20 minute wait: 0 (0%)
21-60 minute wait: 4 (33%)	21-60 minute wait: 5 (42%)	21-60 minute wait: 2 (50%)
1-6 hour wait: 2 (17%)	1-6 hour wait: 2 (17%)	1-6 hour wait: 1 (25%)
Trips with no connections: 2 (17%)	Trips with no connections: 2 (17%)	Trips with no connections: 1 (25%)

Areas of concern/opportunities for improvement

- Station hours are limited in scope. These could be expanded to better match other modes.
- There is a need for bus information including schedules, fares, and contact information.
- Extend local bus service hours on weekdays and weekends to improve evening connections with Vermont service.
- Provide train schedule information visible from the outside waiting area.



Figure 14. Placemaking Signage

Ferrisburgh

572 VT-22A, Ferrisburgh, VT 05456

Modes Served

Intercity	VT Translines
Rail	N/A
Ferry	N/A
Commuter Bus	TVT
Local Bus	N/A

01

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
The park and ride has road signage and there is specific signage for Amtrak and the (since merged) Chittenden County Transportation Authority (CT). No intercity signage.	There is a soon-to-be-opened Amtrak station which will have an indoor waiting area. Additionally, there is a bus shelter with CT signage.	Signs on the road indicate there is a park and ride with bus connections.

Local/Commuter Bus Connections

There is a bus shelter with dated CT signage. Additionally, there are bike racks and a nearby bike path. One sign also had outdated ACTR branding.	Bus Stop Amenities	
	Bus stop sign	X
	Information on bus routes servicing stop	✓
	Schedule Information	X
	Contact info (website, email, phone number or app) on how to get schedule info	✓
	Fare information	X
Other: Future Amtrak Station	✓	

Intermodal connections and wait times between local/commuter bus

Weekday	Saturdays	Sundays
The Burlington LINK and VT Translines both operate along the Route 7 corridor. Trips are well-spaced except the last northbound LINK departs within 30 mins of VT Translines in the same direction.	The Burlington LINK and VT Translines both operate along the Route 7 corridor. Trips are well-spaced except the last northbound and midday southbound LINK depart within 30 mins of VT Translines in the same direction.	There is no Sunday commuter service.

Areas of concern/opportunities for improvement

- Install intercity signage that includes schedule, fare and contact information.
- Update signage to reflect TVT branding. Signage should also include schedule and fare information.
- Install wayfinding signage that directs bus users to the soon-to-launch Amtrak service on-site.
- Reduce redundancy in the PM between Burlington LINK and VT Translines NB.
- Implement local feeder service for the park-and-ride on weekdays and weekends.



Figure 15. Main Entrance with Future Amtrak Signage

Manchester

Bus Parking Area, Manchester, VT 05255



Modes Served

Intercity	VT Translines
Rail	N/A
Ferry	N/A
Commuter Bus	MVRTD & GMCN
Local Bus	N/A

02

Local and
Commuter Bus
Routes Service
the Stop

Signage	Amenities	Wayfinding Information
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While there is no street signage, there is a stop sign indicating where the bus parks.

There is a sign with outdated route information, including connection to Amtrak in Albany info. A QR code is available to view the schedule.

There are no wayfinding measures for this stop.

Local/Commuter Bus Connections

There is a local bus stop approximately 200 feet away.

Bus Stop Amenities	
Bus stop sign	X
Information on bus routes servicing stop	X
Schedule Information	X
Contact info (website, email, phone number or app) on how to get schedule info	X
Fare information	X
Other	X

Intermodal connections and wait times between local/commuter bus

<u>Weekday</u>	<u>Saturdays</u>	<u>Sundays</u>
Average wait time: 1:55 Less than 20 minute wait: 0 (0%) 21-60 minute wait: 2 (13%) 1-6 hour wait: 7 (44%) Trips with no connections: 7 (44%)	Average wait time: 3:00 Less than 20 minute wait: 0 (0%) 21-60 minute wait: 0 (0%) 1-6 hour wait: 2 (25%) Trips with no connections: 6 (75%)	There is no Sunday local or commuter service.

Areas of concern/opportunities for improvement

- Install wayfinding signage for vehicles and pedestrians indicating there is an intercity bus stop.
- Install wayfinding that directs pedestrians between intercity and local/commuter bus stops.
- Install local and commuter bus signage including fare, schedule, and contact information.
- Install a sheltered waiting area.
- Install seating by the intercity bus stop.
- Begin weekday local/commuter service earlier.
- End weekday local/commuter service later.
- Increase local and commuter services during midday.
- Implement Sunday local/commuter service

Middlebury

Storrs Ave Southbound at Franklin St next to Davis Family Library



Modes Served

Intercity	VT Translines
Rail	N/A
Ferry	N/A
Commuter Bus	MVRTD & TVT
Local Bus	TVT

10

Local and Commuter Bus Routes Service the Stop

Signage
Amenities
Wayfinding Information

There is no signage marking the current station location.

There is no intercity information present.

While the area has other bus stops nearby, this location has no intercity wayfinding signage.

Local/Commuter Bus Connections

Local busses have a stop approximately 800 feet away. Several routes service the stop and there is a bus shelter and benches for waiting passengers.	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✓
	Schedule Information	✓
	Contact info (website, email, phone number or app) on how to get schedule info	✓
	Fare information	✗
Other	✗	
Intermodal connections and wait times between local/commuter bus		
Weekday	Saturdays	Sundays
Average wait time: 1:24 Less than 20 minute wait: 13 (20%) 21-60 minute wait: 19 (30%) 1-6 hour wait: 13 (20%) Trips with no connections: 19 (30%)	Average wait time: 1:23 Less than 20 minute wait: 2 (5%) 21-60 minute wait: 9 (23%) 1-6 hour wait: 8 (20%) Trips with no connections: 21 (53%)	There is no Sunday local bus service.

Areas of concern/opportunities for improvement

- Install intercity bus signage including schedule, contact, and fare information.
- Improve pedestrian wayfinding between the intercity bus stop, and local bus stops.
- Install a bus shelter at the intercity stop.
- Begin local service routes at earlier times to better align with early-morning intercity routes on weekdays and Saturdays.
- Install wayfinding signage for approaching vehicles.
- Extend Saturday local service into the evening.
- Increase Saturday local service to reduce wait times for intercity service.
- Implement Sunday local service.
- Reduce redundancy in the AM between Rutland-Middlebury Connector and VT Translines SB on weekdays.
- Reduce redundancy in the PM between Burlington LINK and VT Translines NB weekdays and mid-day SB on Saturdays.
- Consider adding a local bus stop at the soon-to-open Middlebury Amtrak Station.

Montpelier Dog Park & Ride

1136-1400 Dog River Rd, Montpelier, VT 05602

Modes Served

Intercity	Megabus
Rail	N/A
Ferry	N/A
Commuter Bus	N/A
Local Bus	GMT

01

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
<p>There is signage indicating a former local bus provider (Stagecoach) services the stop, but nothing else.</p>	<p>There is a bench and a bike rack. The bench is broken.</p>	<p>There is signage for cars indicating the Park & Ride is serviced by Stagecoach. Car signage begins approximately .5 miles out and at the stop entrance.</p>

Local/Commuter Bus Connections

<p>There is local bus signage for a past service that no longer exists. There are benches which may indicate where the bus stops. The location is accessible within the MyRide zone.</p>	Bus Stop Amenities	
	Bus stop sign	X
	Information on bus routes servicing stop	X
	Schedule Information	X
	Contact info (website, email, phone number or app) on how to get schedule info	X
	Fare information	X
Other	X	
Intermodal connections and wait times between local/commuter bus		
<p>Weekday Average wait time: 0:08 Less than 20 minute wait: 4 (100%) 21-60 minute wait: 0 (0%) 1-6 hour wait: 0 (0%) Trips with no connections: 0 (0%)</p>	<p>Saturdays Average wait time: 0:08 Less than 20 minute wait: 4 (100%) 21-60 minute wait: 0 (0%) 1-6 hour wait: 0 (0%) Trips with no connections: 0 (0%)</p>	<p>Sundays There is no Sunday local service.</p>

Areas of concern/opportunities for improvement

- Replace existing Stagecoach signage with new Megabus and local bus signage. Signage should include schedule, fare, and contact information.
- Install indoor or sheltered/heated waiting areas at the park and ride.
- Replace existing bus benches.
- Implement Sunday local bus service.



Figure 16. Existing Stagecoach Signage

Montpelier Downtown

28 Main Street, Montpelier, Vermont 05062

Modes Served

Intercity	Greyhound
Rail	N/A
Ferry	N/A
Commuter Bus	RCT & TVT
Local Bus	GMT

03

Local and Commuter Bus Routes Service the Stop



Signage
Amenities
Wayfinding Information

There is no intercity bus signage.

There are no amenities.

There is wayfinding for the Montpelier Transit Center, but Greyhound doesn't stop at that location.

Local/Commuter Bus Connections

Transit center wayfinding exists, but the intercity stop is not located here. There is a designated pickup location for GMT MyRide and bus stop 400 feet away at Shaw's for commuter routes. Shaw's has a shelter and bench	Bus Stop Amenities (MyRide/Shaw's)	
	Bus stop sign	X/✓
	Information on bus routes servicing stop	X/✓
	Schedule Information	X/✓
	Contact info (website, email, phone number or app) on how to get schedule info	X/✓
	Fare information	X
Other	X	
Intermodal connections and wait times between local/commuter bus		
Weekday	Saturdays	Sundays
Average wait time: 1:28 Less than 20 minute wait: 5 (42%) 21-60 minute wait: 1 (8%) 1-6 hour wait: 4 (33%) Trips with no connections: 2 (17%)	Average wait time: 0:08 Less than 20 minute wait: 4 (100%) 21-60 minute wait: 0 (0%) 1-6 hour wait: 0 (0%) Trips with no connections: 0 (0%)	There is no Sunday local/commuter service.

Areas of concern/opportunities for improvement

- Install intercity signage which includes schedule, fare, and contact information.
- Install local/commuter bus signage which includes stop location, schedule, fare, and contact information.
- Update existing wayfinding signage to include intercity location at 28 Main Street.
- Implement local Sunday service.
- Extend service hours on commuter routes to service evening intercity service.

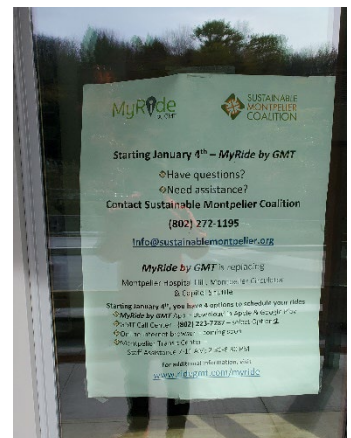


Figure 17. GMT info in Shaw's Window

Montpelier-Berlin

297 Junction Road, Montpelier, VT 05602

Modes Served

Intercity	N/A
Rail	Vermont
Ferry	N/A
Commuter Bus	N/A
Local Bus	GMT

01

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
<p>The station has signage that clearly indicated it was served by Amtrak.</p>	<p>Information is posted for how to obtain schedule information online or via phone. There is an indoor waiting area with limited hours.</p>	<p>Car-based signage exists approximately 0.5-0.1 miles from the station.</p>

Local/Commuter Bus Connections

<p>There is a local bus connection with MyRide though signage is non-existent.</p>	Bus Stop Amenities	
	Bus stop sign	X
	Information on bus routes servicing stop	X
	Schedule Information	X
	Contact info (website, email, phone number or app) on how to get schedule info	X
	Fare information	X
Other	X	
Intermodal connections and wait times between local/commuter bus		
<p>Weekday Average wait time: 0:36 Less than 20 minute wait: 2 (50%) 21-60 minute wait: 0 (0%) 1 -6 hour wait: 1 (25%) Trips with no connections: 1 (25%)</p>	<p>Saturdays Average wait time: 0:36 Less than 20 minute wait: 2 (50%) 21-60 minute wait: 0 (0%) 1 -6 hour wait: 1 (25%) Trips with no connections: 1 (25%)</p>	<p>Sundays There is no Sunday service.</p>

Areas of concern/opportunities for improvement

- Increase Amtrak station hours to accommodate those arriving by other modes.
- Post Amtrak schedule and fare information.
- Install local bus signage for MyRide and how to use the service.
- Implement Sunday local bus service.
- Extend local bus service hours on weekdays and Saturdays to create a connection with northbound Vermont service.

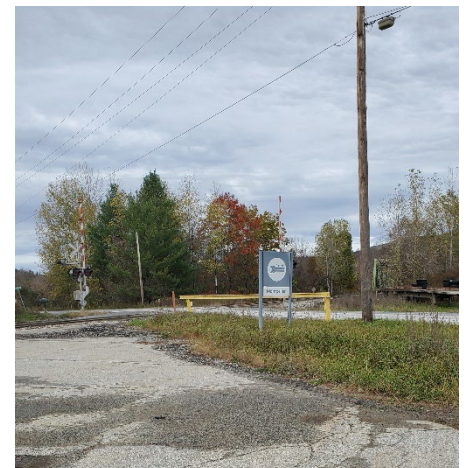


Figure 18. Current Station Entrance

Randolph

South Main and Salisbury Streets, Randolph, VT 05060



Modes Served

Intercity	N/A
Rail	Vermont
Ferry	N/A
Commuter Bus	TVT
Local Bus	TVT

05

Local and
Commuter Bus
Routes Service
the Stop

Signage	Amenities	Wayfinding Information
---------	-----------	------------------------

<p>The station featured limited amounts of Amtrak signage.</p>	<p>Amtrak schedule info is posted outside. There is a note on a special Amtrak fare for local residents. There is an indoor waiting space but hours are limited.</p>	<p>There was no wayfinding signage.</p>
--	--	---

Local/Commuter Bus

Connections

<p>The stop included bus stop signage and TVT contact information. The stop is very close to the train platform.</p>	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✗
	Schedule Information	✗
	Contact info (website, email, phone number or app) on how to get schedule info	✓
	Fare information	✗
Other	✗	

Intermodal connections and wait times between local/commuter bus

<u>Weekday</u>	<u>Saturdays</u>	<u>Sundays</u>
<p>Average wait time: 1:39 Less than 20 minute wait: 4 (20%) 21-60 minute wait: 2 (10%) 1 -6 hour wait: 7 (35%) Trips with no connections: 7 (35%)</p>	<p>There is no Saturday service.</p>	<p>There is no Sunday service.</p>

Areas of concern/opportunities for improvement

- Install additional Amtrak signage.
- Improve wayfinding signage to the Amtrak station for both vehicles and pedestrians.
- Improve evening schedules on all routes to create connections from the northbound Vermont.
- Provide local bus schedule and fare information at the station, visible from the exterior. This could be using real-time arrival/departure screens, a Randolph is a hub.
- Implement Saturday and Sunday service.
- Build in additional time for the transfer between southbound Vermont and local bus connections.
- Reduce redundancy between the 89er South midday trip and Vermont Southbound.



Figure 19. Waiting area at Randolph Train Station

Rutland

25 Evelyn Street Rutland, VT 05701

Modes Served

Intercity	VT Translines
Rail	Ethan Allen
Ferry	N/A
Commuter Bus	MVRTD & TVT
Local Bus	MVRTD

13

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
<p>Both the train and downtown bus station (DTC) are well-signed. It is clear where passengers should wait. In both cases, there is no intercity bus signage.</p>	<p>There is an Amtrak waiting room with limited hours. Schedule information is posted outside the station. At the DTC, there is a waiting space inside a garage.</p>	<p>Wayfinding signage exists for guiding people to Amtrak and the DTC individually. There is signage for both vehicles and pedestrians. Neither location has signage leading to the other.</p>

Local/Commuter Bus Connections

<p>There is a local bus stop approximately 500 feet away from the train station (Walmart Plaza). Pedestrian access is limited and involves crossing a parking lot. Additionally, the Downtown Transit Center (DTC) is located 0.3 miles from the station. Signage at the DTC is well done, whereas signage at the stop immediately near the train station could be improved.</p>	Bus Stop Amenities Walmart Plaza/DTC	
	Bus stop sign	✓ / ✓
	Information on bus routes servicing stop	✗ / ✓
	Schedule Information	✗ / ✓
	Contact info (website, email, phone number or app) on how to get schedule info	✗ / ✓
	Fare information	✗ / ✓
Other: Access to nearby food options	✓ / ✓	

Intermodal connections and wait times between local/commuter bus

Weekday	Saturdays	Sundays
Average wait time: 1:23	Average wait time: 1:26	Average wait time: 2:20
Less than 20 minute wait: 25 (19%)	Less than 20 minute wait: 24 (27%)	Less than 20 minute wait: 2 (9%)
21-60 minute wait: 30 (23%)	21-60 minute wait: 25 (28%)	21-60 minute wait: 1 (5%)
1-6 hour wait: 35 (27%)	1-6 hour wait: 29 (33%)	1-6 hour wait: 12 (55%)
Trips with no connections: 40 (31%)	Trips with no connections: 11 (12%)	Trips with no connections: 7 (32%)

Areas of concern/opportunities for improvement

- Update Amtrak station signage to include fare information.
- Install intercity signage that includes schedule, fare and contact information.
- Install local and commuter bus signage at Walmart Plaza that indicates schedule, fare and contact information.
- Improve pedestrian wayfinding between the station and commuter/local bus services.
- Install realtime arrival and departure screens at the DTC.
- Extend Amtrak station hours.
- Improve the built environment connecting the train to local/commuter bus and DTC.
- On Sunday's begins local/commuter service earlier and increase midday service to allow additional connections with Ethan Allen and VT Translines.
- Run later evening local and commuter service to allow for increased connections with VT Translines and Ethan Allen on all days.
- Reduce redundancy in the AM between Rutland-Middlebury Connector and VT Translines SB on weekdays.
- Add seating at Walmart Plaza.

South Burlington (Airport)

1200 Airport Dr, South Burlington, VT 05403

Modes Served

Intercity	VT Translines
Rail	N/A
Ferry	N/A
Commuter Bus	N/A
Local Bus	GMT

01

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
<p>Partial intercity signage existed within the Airport.</p>	<p>The airport lobby likely serves as an indoor waiting area and it has many amenities such as seating areas.</p>	<p>Car signage mainly focuses on access to the Airport but does include bus information. Within the airport lobby, there are some general bus direction wayfinding signs.</p>

Local/Commuter Bus Connections

<p>Local bus information is very well displayed. There is signage including bus stop locations and schedule information. Signage is more pronounced outside by stops versus inside the airport lobby.</p>	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✓
	Schedule Information	✓
	Contact info (website, email, phone number or app) on how to get schedule info	✓
	Fare information	✗
Other	✗	
Intermodal connections and wait times between local/commuter bus		
<p>Weekday Average wait time: 0:40 Less than 20 minute wait: 2 (25%) 21-60 minute wait: 2 (25%) 1 -6 hour wait: 2 (25%) Trips with no connections: 2 (25%)</p>	<p>Saturdays Average wait time: 0:39 Less than 20 minute wait: 1 (13%) 21-60 minute wait: 3 (38%) 1 -6 hour wait: 2 (25%) Trips with no connections: 2 (25%)</p>	<p>Sundays Average wait time: 1:08 Less than 20 minute wait: 1 (13%) 21-60 minute wait: 2 (25%) 1 -6 hour wait: 2 (25%) Trips with no connections: 3 (38%)</p>

Areas of concern/opportunities for improvement

- Install specific VT Translines intercity bus signage including schedule and fare information.
- Expand weekday and weekend local bus service hours to Create connecting transfers to early morning and late evening (pos-midnight) VT Translines arrivals. Would also improve connections to early morning flight departures and late evening arrivals.



Figure 20. Current Outdoor Signage

St. Albans

40 Federal Street, St. Albans, VT 05478



Modes Served

Intercity	N/A
Rail	Vermont
Ferry	N/A
Commuter Bus	GMT
Local Bus	GMT

03

Local and
Commuter Bus
Routes Service
the Stop

Signage	Amenities	Wayfinding Information
<p>Signage included a large Amtrak sign right near the train entrance. Signage was car oriented.</p>	<p>General Vermont schedule information was posted in a display case, though information did not include fares. There is a waiting room with limited hours.</p>	<p>Signage existed on the road and the station was clearly visible when walking on the adjacent sidewalk. Signage downtown directing pedestrians to the train was limited.</p>

Local/Commuter Bus Connections

<p>The nearest bus connection was approximately 1500 feet away at a grocery store. Walking to the location appeared safe, though it included a railroad track grade crossing.</p>	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✗
	Schedule Information	✗
	Contact info (website, email, phone number or app) on how to get schedule info	✗
	Fare information	✗
Other	✗	
Intermodal connections and wait times between local/commuter bus		
<p>Weekday Average wait time: 2:11 Less than 20 minute wait: 0, 0% 21-60 minute wait: 1, 8% 1 -6 hour wait: 2, 17% Trips with no connections: 9, 75%</p>	<p>Saturdays All trips (2) existed outside of operating hours, meaning no connections were possible.</p>	<p>Sundays Amtrak Vermont is the only active Sunday service.</p>

Areas of concern/opportunities for improvement

- Pedestrian wayfinding to/from the station and the St. Albans downtown core (N. Main Street) could be improved.
- Wayfinding to/from the Amtrak Station and GMT local/commuter bus stops at the nearby grocery store could be improved.
- Amtrak station signage didn't include fare information.
- There is limited bus service on Saturdays and no bus service exists on Sundays.
- The 110-St Albans Downtown Shuttle service on Saturdays doesn't align with the Vermont schedule.
- Local service ends before the Vermont NB train arrives on weekdays.
- Amtrak waiting room hours are limited and could be extended.
- Provide local and commuter bus schedule and fare information at the local grocery store.

Wallingford

309 N Main St, Wallingford, VT 05773



Modes Served

Intercity	VT Translines
Rail	N/A
Ferry	N/A
Commuter Bus	MVRTD
Local Bus	N/A

01

Local and Commuter Bus Routes Service the Stop

Signage	Amenities	Wayfinding Information
---------	-----------	------------------------

There is no signage for intercity bus.	There is a nearby gas station which has bathrooms and snacks.	There is no wayfinding signage.
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Local/Commuter Bus Connections

The bus stop is near the entrance and exit of a gas station on recently paved sidewalks.	Bus Stop Amenities	
	Bus stop sign	X
	Information on bus routes servicing stop	X
	Schedule Information	X
	Contact info (website, email, phone number or app) on how to get schedule info	X
	Fare information	X
Other	X	

Intermodal connections and wait times between local/commuter bus

<p><u>Weekday</u> Average wait time: 2:06 Less than 20 minute wait: 1 (6%) 21-60 minute wait: 4 (25%) 1-6 hour wait: 7 (44%) Trips with no connections: 4 (25%)</p>	<p><u>Saturdays</u> Average wait time: 2:06 Less than 20 minute wait: 1 (6%) 21-60 minute wait: 4 (25%) 1-6 hour wait: 7 (44%) Trips with no connections: 4 (25%)</p>	<p><u>Sundays</u> There is no Sunday commuter bus service.</p>
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Areas of concern/opportunities for improvement

- Install commuter and intercity bus signage which includes schedule, fare and contact information.
- Install a bus shelter.
- Install seating at the bus stop.
- Extend commuter bus hours to allow for a connection with the evening intercity bus.
- Operate service on Sundays.
- Implement late afternoon local/commuter service on weekdays and Saturdays to better connect with VT Translines service.

Waterbury/Stowe

US Highway 2 and Park Row Waterbury, VT 05676

Modes Served

Intercity	N/A
Rail	Vermont
Ferry	N/A
Commuter Bus	RCT & GMT
Local Bus	N/A

03

Local and Commuter Bus Routes Service the Stop



Signage	Amenities	Wayfinding Information
<p>Amtrak information was well-signed.</p>	<p>Amtrak schedules were visible from outside the station. Fare information was not visible outside the station. There is an indoor waiting area with limited hours.</p>	<p>There is signage indicating how to access the station via a vehicle.</p>

Local/Commuter Bus Connections

Signage or any indication of a bus connection does not exist. Some bus information is located within the Amtrak station.	Bus Stop Amenities	
	Bus stop sign	X
	Information on bus routes servicing stop	X
	Schedule Information	X
	Contact info (website, email, phone number or app) on how to get schedule info	X
	Fare information	X
Other	X	
Intermodal connections and wait times between local/commuter bus		
<p>Weekday Average wait time: 3:04 Less than 20 minute wait: 0 (0%) 21-60 minute wait: 0 (0%) 1 -6 hour wait: 5 (31%) Trips with no connections: 11 (69%)</p>	<p>Saturdays There is no weekend service.</p>	<p>Sundays There is no weekend service.</p>

Areas of concern/opportunities for improvement

- Improve station waiting room hours.
- Post Amtrak fare information.
- Install signage that directs users from the train platform to the local bus stop.
- Reduce the wait time between buses and the train.
- Run commuter and local service later at night to connect with arriving and departing trains.
- Run commuter and local service earlier in the morning to improve Amtrak connections.
- Implement weekend commuter and local bus service.



Figure 21. Existing Amtrak Schedule Information

White River Junction

102 Railroad Row, White River Junction, VT 05001



Modes Served

Intercity	N/A
Rail	Vermont
Ferry	N/A
Commuter Bus	TVT
Local Bus	AT

02

Local and Commuter Bus Routes Service the Stop

Signage	Amenities	Wayfinding Information
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The station has Amtrak signage in the driveway as one enters the property.

There is an indoor waiting area with schedule information posted. It has very limited hours.

There is signage for cars indicating how to access the station. Signage existed within 0.5 miles.

Local/Commuter Bus Connections

The closest bus stop is roughly 700 feet away from the station. Users can access it via a safe walking path.	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✗
	Schedule Information	✗
	Contact info (website, email, phone number or app) on how to get schedule info	✓
	Fare information	✗
Other	✗	

Intermodal connections and wait times between local/commuter bus

Weekday	Saturdays	Sundays
Average wait time: 1:00 Less than 20 minute wait: 1 (13%) 21-60 minute wait: 2 (50%) 1 -6 hour wait: 3 (38%) Trips with no connections: 2 (25%)	There is no Saturday bus service.	There is no Sunday bus service.

Areas of concern/opportunities for improvement

- Increase station operating hours.
- Post schedule and fare information outside of the station interior.
- Improve wayfinding between the Amtrak station and local bus stop.
- Implement weekend service.
- Install updated bus signage that features routes that serve the location and schedule, information.
- Increase evening bus service to connect with the arriving northbound Vermont Train.
- Add midday 89er service to the train station.
- Install seating at the local bus stop.
- Reduce redundancy between the 89er South midday trip and Vermont Southbound.



Figure 22. Current Wayfinding

White River Junction Skyes Mt. Ave.

44 Sykes Mountain Ave, White River Junction, VT 05001



Image Source: Google Maps

Modes Served

	Greyhound
Rail	N/A
Ferry	N/A
Commuter Bus	TVT
Local Bus	AT

03

Local and
Commuter Bus
Routes Service
the Stop

Signage	Amenities	Wayfinding Information
---------	-----------	------------------------

Greyhound signage is present and there are 4 bays clearly marked.

There is a covered station open 24/7 connected to a convenience store. Fare information is present, and individuals can purchase fares on-site. Information inside is very easy to follow.

Wayfinding signage exists and primarily serves cars.

Local/Commuter Bus

Connections

There is a local bus connection 300 feet from the intercity bus station. Access to the stop requires crossing through a parking lot and upon arriving, it can be unclear as to where the bus stop is specifically located.	Bus Stop Amenities	
	Bus stop sign	✓
	Information on bus routes servicing stop	✗
	Schedule Information	✗
	Contact info (website, email, phone number or app) on how to get schedule info	✓
	Fare information	✗
Other	✗	
Intermodal connections and wait times between local/commuter bus		
Weekday Average wait time: 1:31 Less than 20 minute wait: 5 (28%) 21-60 minute wait: 4 (22%) 1 -6 hour wait: 6 (33%) Trips with no connections: 3 (17%)	Saturdays There is no local service on Saturdays.	Sundays There is no local service on Sundays.

Areas of concern/opportunities for improvement

- Expand morning local bus service to align with the morning Greyhound WRJ-Springfield MA route (6:30 AM departure).
- Implement Saturday and Sunday service.
- Install seating at local bus stop.
- Install signage containing local bus schedule.
- Improve the built environment connecting Greyhound buses and local buses.
- Install wayfinding signage that directs users safely between the modes.
- Implement midday commuter service to create better connections to Greyhound.



Figure 23. Sample Wayfinding in Waterbury, VT

Key Findings

- Most stops and stations have local and commuter bus signage. However, the level of information is inconsistent as some stops/stations (ex: Middlebury) post stop, schedule, and contact information, whereas others do not have any local/commuter signage.
- Rail stations typically have signage that indicates Amtrak service, but there are occasional wayfinding barriers to other services such as local or intercity bus services.
- Stations at downtown hubs typically are well-signed for local and commuter service, though there can be wayfinding challenges between local/commuter buses and intercity buses.
- When intercity bus services have a station, they are typically well-signed. Signage often lacks when an intercity bus service operates at a simpler bus stop.
- There are several corridors where local/commuter service runs along similar corridors as intercity or rail. Most of the time, the trips are spaced out amongst the modes. However, there are instances where a commuter route departs within 30 minutes of an intercity or train route heading in the same direction, connecting the same communities. Corridors with this overlap include:
 - Burlington – Montpelier: The Greyhound route departs within 30 minutes of a Montpelier LINK northbound trip in the same direction.
 - Randolph – White River Junction: The 89er midday trip southbound departs at the same time as the Vermonter in the same direction
 - Brattleboro- Bellow Falls: The last Route 53 trip departs within 20 minutes of the Vermonter, heading in the same direction.
 - Rutland – Middlebury: The Rutland/Middlebury Connector has overlap in the morning on weekdays with VT Translines Route 7 southbound.
 - Burlington – Middlebury: The Burlington LINK and VT Translines Route 7 have overlap on weekdays midday northbound, and midday, southbound on Saturdays.

Recommendations

Introduction

After reviewing past plans, engaging with stakeholders, conducting site visits, and reviewing schedules, the project team developed a series of intermodal connection recommendations, both general and station-specific. Recommendations range from infrastructure improvements like wayfinding between stops and stations, to service improvements like extending local service hours into the evening. Following a meeting with VTrans staff, recommendations were prioritized in terms of importance (low, medium, and high) and time frame (short- and long-term). Following a working session with additional VTrans staff, recommendations were prioritized based on their impact, ease of implementation, and cost.

Overarching Recommendations

While there are many station-specific recommendations, the research and analysis revealed several general recommendations, which could apply statewide. Recommendations include the following eight items:

- Improve and add additional communications that promote the Transit App;
- Coordinated passes/ticketing;
- Biannual meetings amongst stakeholders to foster collaboration;
- Improve on-time performance for Amtrak and intercity bus;
- Install additional highway signage;
- Utilize service extensions as an opportunity to promote transit connections;
- Provide connecting transit (routes) information on providers websites; and
- Coordinate Amtrak and intercity bus routes to operate in a manner that reduces redundancy and increases the overall breadth of more extended distance service for Vermonters.

There are several themes within these recommendations, including intra-agency coordination (ex: installing bus signage on highways), inter-agency/organization coordination (ex: coordinated passes and ticketing), and overall transportation network improvements (on-time performance improvements). While VTrans can lead and initiate steps to implement these improvements, external stakeholders will require the willingness and effort to implement such changes. The coordinated meetings recommendation should help VTrans to this end.

Station-Specific Recommendations

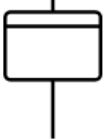
The site visits and schedule analysis largely inform Station-specific recommendations. Many stations have unique needs and recommendations, which are identified earlier in the station profiles section. However, the analysis revealed that there are a series of capital and service recommendations that apply at one or more stations. This list of recommendations includes a mix of capital (Figure 24) and service (Figure 25) recommendations. Additionally, a full table listing all capital and service recommendations for each station is in Appendix A. Key findings include:

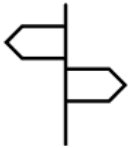
- Approximately 46 percent of intermodal stations studied need to replace existing signage. Roughly 67 percent of stations need to install new local or intercity signage³; and
- Two Amtrak Stations (Castleton and Rutland) and one intercity bus station (White River Junction Skyes Mt. Ave.) need built environment improvements between the station and nearby bus stops.
- A majority (75 percent) of intermodal stations could improve weekday service by extending weekday service up to 2 hours later.

³ Some stations need to both update existing signage and install new signage for other services. Most often, local bus information needs to be updated and intercity signage needs to be installed.

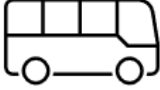
Capital Recommendations

10


- 1 

Replace/update existing signage at station/stop
- 2 

Install new signage where signage currently doesn't exist
- 3 


Install pedestrian wayfinding between the station and local bus stop
- 4 


Provide local bus schedule or contact information at local stop or station platform
- 5 

Provide intercity bus schedule information
- 6 

Install real-time arrival and departure screens (at major hubs that currently do not) with multi-modal information
- 7 

Provide train schedule information that is visible from outside the station waiting area
- 8 

Build new indoor or sheltered waiting area at station
- 9 


Improve the built environment connecting modes
- 10 


Building seating at the local bus stop.


Figure 24. Proposed Capital Recommendations


Service Recommendations


11


- 

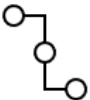
1. Begin local **weekday** service up to 2 hours **earlier** to improve connections
- 


2. Extend local **weekday** service up to 2 hours **later** to allow for additional connections.
- 


3. Implement new local **Saturday** service
- 

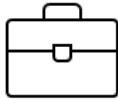
4. Implement new local **Sunday** service
- 


5. **Expand local weekend** service by up to 2 hours to foster additional connections
- 

6. Improve **weekend** connections at intermodal facilities
- 

7. Improve **weekday** connections at intermodal facilities
- 

8. Expand Amtrak/Intercity **station hours to 8 hours daily.**
- 

9. Plan for **new local service** if it doesn't exist
- 

10. Implement or **increase midday weekday** local service
- 

11. Reduce **redundancy in schedules**

Figure 25. Proposed Service Recommendations

Prioritization Methodology

Having identified recommendations, the project team then prioritized them using a mixture of industry knowledge and meetings with VTrans staff. Recommendations were prioritized based on three components: the degree to which it will have an impact, the implementation complexity, and the estimated cost (Figure 26). The impact degree was assigned based on the ability for a recommendation to encourage intermodal transit and rail travel. Complexity was measured based on the number of barriers or actions required to implement a solution. Cost prioritizations were identified using different thresholds. All recommendations received a score reflecting the degree to which they would best satisfy all conditions. Recommendations with the highest value scored a 9 (high need, low complexity, low cost), and those with the lowest possible value (low need, high complexity, and high cost) scored a 3.4 Understanding that some recommendations could be quickly implemented whereas others required a longer time period, the prioritized recommendations were then split into two groups: short- and long-term.

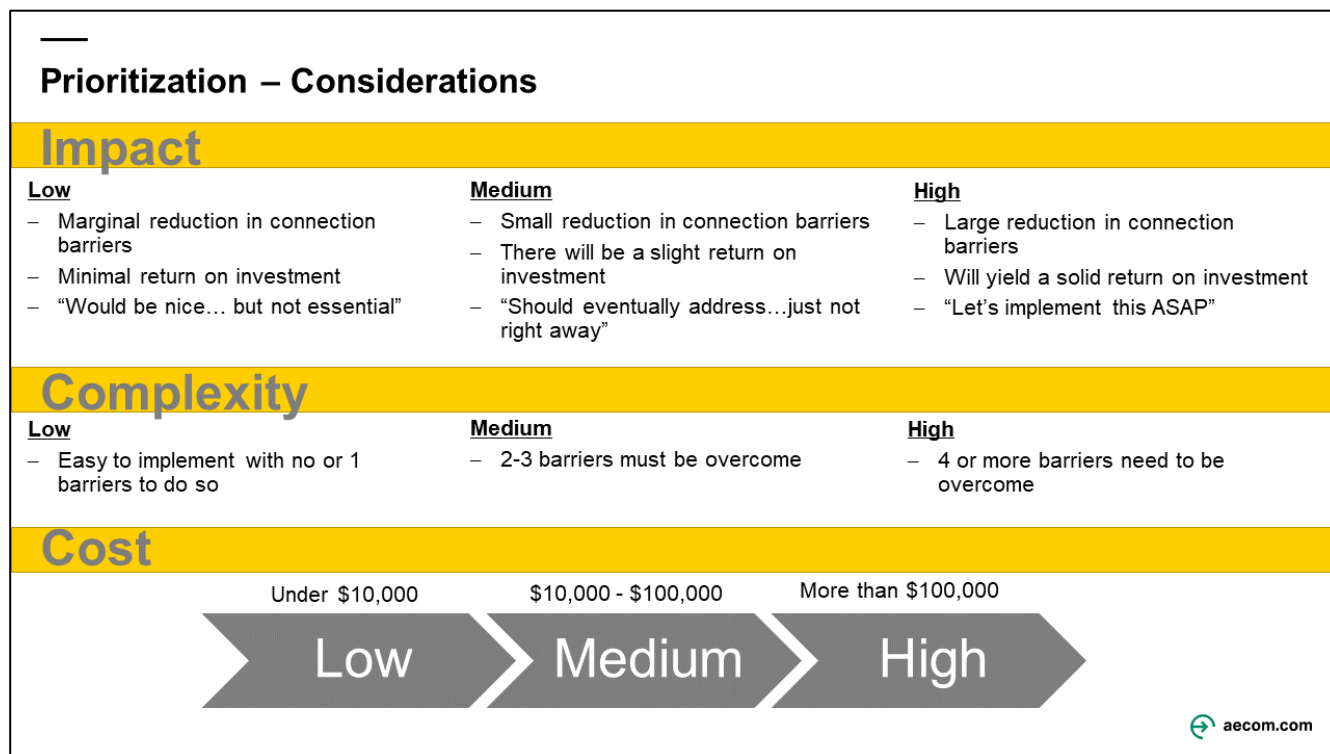


Figure 26. Prioritization Criteria

⁴ The full prioritization matrix is available in Appendix B.

Short-Term Recommendations

The analysis and prioritization process revealed several recommendations that could be implemented in under a year. These nine recommendations would have an immediate impact on intermodal connectivity. The list of short-term recommendations is as follows:

- Replace/update existing signage at stations/stops (Figure 27).
- Provide local bus schedule or contact information at local stop or station platform.
- Provide intercity bus schedule information.
- Provide train schedule information that is visible from outside the station waiting area.
- Provide connecting transit (routes) information on provider websites.
- Improve and add additional communications that promote the Transit App.
- Biannual meetings amongst stakeholders to foster collaboration.
- Begin local weekday service up to 2 hours earlier to improve connections.
- Extend local weekday service up to 2 hours later to allow for additional connections.



Figure 27. Sample Amtrak & Intercity Bus Sign

Long-Term Recommendations

While many recommendations could be implemented in the short term, some recommendations require additional planning, significant funds, and/or approval processes that would take over a year to implement. These are long-term recommendations. Recognizing the need to strategically review these 20 recommendations, all have been categorized as high, medium, and low based on the overall impact, complexity, and cost.

High priority long-term recommendations are the recommendations that typically have a lower cost and high impact, but there is a level of complexity to implement. Four high priority long-term recommendations were identified, they are as follows:

- Install new signage where signage currently does not exist⁵.
- Utilize service extensions as an opportunity to promote transit connections.

⁵ There are many stops/stations in need of signs, though the speed of implementation could change based on community contexts and local ordinances. In places such as park & rides or remote locations, this may be easier.

- Improve weekend connections at intermodal facilities.
- Improve weekday connections at intermodal facilities.

Medium priority long-term recommendations are the recommendations that typically have a mid-level cost to implement, the same level complexity as high levels priorities but have less of an impact. Eight medium priority long-term recommendations were identified, they are as follows:

- Building seating at the local bus stop.
- Install pedestrian wayfinding between the station and local bus stop.
- Installing additional highway signage to promote available services.
- Build a new indoor or sheltered waiting area at the station⁶.
- Expand local weekend service hours by up to 2 hours to foster additional connections.
- Implement or increase midday weekday local service.
- Reduce redundancy in schedules.
- Coordinate Amtrak and intercity bus routes to operate in a manner that reduces redundancy and increases the overall breadth of more extended distance service for Vermonters.

Low priority long-term recommendations are the recommendations that have a high cost to implement and high complexity. The impact varies from medium to high. Eight low priority long-term recommendations were identified, they are as follows:

- Install real-time arrival and departure screens (at major hubs that currently do not) with multimodal information.
- Expand Amtrak/Intercity station hours to 8 hours daily.
- Improve the built environment connecting modes.
- Coordinate passes/ticketing to allow for a single ticket on multiple modes.
- Improve on-time performance for Amtrak and intercity bus.
- Implement new local Saturday service.
- Implement new local Sunday service.
- Plan for new local service if it does not exist.

⁶ Depending on the station context (bus shelter or full station), this recommendation can change in scope. It is possible that a simple bus shelter could be a short-term priority.

Next Steps

Following the publication of this report, VTrans has several opportunities for next steps. In the short-term, the Agency can begin taking steps to implement the proposed short-term recommendations. This may include elements such as reaching out to different transportation providers to coordinate meetings or conducting relevant environmental studies to justify service changes. For short-term capital improvements, additional research such as a review of signage materials and specific content may be required. Additionally, VTrans can begin preparing for the long-term recommendations in this report. Such preparations may include a review of existing fleets to identify procurement needs for additional services or research into single-ticket options for statewide travel.

Appendix A: Recommendations by Station

Station	Infrastructure										
	Replace/update existing signage at station/stop	Install new signage where signage currently doesn't exist	Install pedestrian wayfinding between station and local bus stop	Wayfinding signage for vehicles as approaching station	Provide local bus schedule or contact information at local stop or station platform	Provide intercity bus schedule information	Install real-time arrival and departure screens (at major hubs that currently do not) with multi-modal info	Provide train schedule information that is visible from outside the station waiting area	Build new indoor or sheltered waiting area at station	Improve built environment connecting modes	Seating at local bus stop
Bellows Falls	X		X	X						X	
Bennington		X				X	X				
Brandon	X	X				X					
Brattleboro Shell		X		X	X			X		X	
Brattleboro Train Station	X				X			X			
Burlington @ Lake Champlain		X	X		X		X			X	
Burlington DTC	X		X			X	X				
Burlington University Heights											
Castleton		X	X		X			X	X	X	
Charlotte											
Colchester	X	X				X					
Essex Junction	X				X			X			
Ferrisburgh	X	X	X		X	X					
Grand Isle											
Manchester		X	X	X	X			X		X	
Middlebury		X	X	X		X		X			
Montpelier DT		X	X			X				X	
Montpelier Dog River Park & Ride	X	X			X	X		X		X	
Montpelier/Berlin		X			X			X			
Randolph	X		X	X	X		X				
Rutland	X	X	X		X		X		X	X	
South Burlington (airport)		X				X					
St. Albans			X		X						
Wallingford		X						X		X	
Waterbury/Stowe		X			X						
White River Junction Skyes Mt Ave.			X						X	X	
White River Junction Train	X		X		X			X		X	
Windsor/Mt. Ascutney											
TOTAL	11	16	13	5	14	9	5	5	5	3	11
<i>Percent</i>	39.3%	57.1%	46.4%	17.9%	50.0%	32.1%	17.9%	17.9%	17.9%	10.7%	39.3%

Key
Short-Term Recommendation
Long-Term Recommendation

Recommendations										
Station	Service									
	Extend local weekday service up to 2 hours later to allow for additional connections.	Implement new local Saturday service	Implement new local Sunday service	Expand local weekend service hours by up to 2 hours to foster additional connections	Improve weekend connections at intermodal facilities	Improve weekday connections at intermodal facilities	Reduce redundancy in schedules	Expand Amtrak/Intercity station hours to 8 hours daily	Plan for new local service if it doesn't exist	Implement or increase midday weekday local or commuter service
Bellows Falls	X	X	X			X	X	X		X
Bennington	X		X	X		X				
Brandon			X				X		X	
Brattleboro Shell	X			X						X
Brattleboro Train Station	X			X	X		X	X		
Burlington @ Lake Champlain										
Burlington DTC	X						X			X
Burlington University Heights		X	X						X	
Castleton	X			X	X			X		
Charlotte		X	X						X	
Colchester	X	X	X							X
Essex Junction	X			X				X		
Ferrisburgh		X	X				X	X	X	
Grand Isle									X	
Manchester	X		X			X				X
Middlebury			X	X			X			
Montpelier DT	X		X				X			
Montpelier Dog River Park & Ride			X							
Montpelier/Berlin	X		X	X				X		
Randolph	X	X	X							
Rutland	X			X	X		X	X		X
South Burlington (airport)	X			X						
St. Albans	X		X	X	X	X		X		
Wallingford	X		X			X		X		
Waterbury/Stowe	X					X		X		X
White River Junction Skyes Mt Ave.		X	X							
White River Junction Train	X	X	X				X	X		X
Windsor/Mt. Ascutney		X	X						X	
TOTAL	18	9	18	10	5	5	10	11	6	8
Percent	64.3%	32.1%	64.3%	35.7%	17.9%	17.9%	35.7%	39.3%	21.4%	28.6%

Key
Short-Term Recommendation
Long-Term Recommendation

Appendix B: Prioritization Matrix

Prioritization Matrix

Type	Recommendation	Impact	Criteria		
			Complexity	Cost	Time frame
Capital	Replace/update existing signage at station/stop	High	Low	Low	Short
Capital	Provide local bus schedule or contact information at local stop or station platform	High	Low	Low	Short
Capital	Provide intercity bus schedule information	High	Low	Low	Short
Capital	Provide train schedule information that is visible from outside the station waiting area	High	Low	Low	Short
Overarching	Provide connecting transit (routes) information on providers websites	High	Low	Low	Short
Overarching	Improve and add additional communications that promote the Transit App	Medium	Low	Low	Short
Overarching	Biannual meetings amongst stakeholders to foster collaboration	Medium	Low	Low	Short
Service	Begin local weekday service up to 2 hours earlier to improve connections	High	High	Medium	Short
Service	Extend local weekday up to 2 hours later to allow for additional connections	High	High	Medium	Short
Capital	Install new signage where signage currently doesn't exist	High	Medium	Low	Long - High Priority
Overarching	Utilize service extensions as an opportunity to promote transit connections	Medium	Low	Low	Long - High Priority
Service	Improve weekend connections at intermodal facilities	High	Medium	Low	Long - High Priority
Service	Improve weekday connections at intermodal facilities	High	Medium	Low	Long - High Priority
Capital	Install pedestrian wayfinding between station and local bus stop	High	Medium	Medium	Long - Medium Priority
Capital	Building seating at local bus stop	Medium	Medium	Low	Long - Medium Priority
Capital	Build new indoor or sheltered waiting area at station	Medium	Medium	Medium	Long - Medium Priority
Overarching	Coordinate Amtrak and intercity bus routes to operate in a manner that reduces redundancy	Medium	High	Low	Long - Medium Priority
Overarching	Installing additional highway signage to promote available services	High	Low	Medium	Long - Medium Priority
Service	Expand local weekend service hours by up to 2 hours to foster additional connections	Medium	Medium	Medium	Long - Medium Priority
Service	Implement or increase midday weekday local service	Medium	Medium	Medium	Long - Medium Priority
Service	Reduce redundancy in schedules	Medium	Medium	Medium	Long - Medium Priority
Capital	Install real-time arrival and departure screens (at major hubs that currently do not) with multi-modal information	Medium	Medium	High	Long - Low Priority
Capital	Improve the built environment connecting modes	High	High	High	Long - Low Priority
Overarching	Coordinate passes/ticketing to allow for a single ticket on multiple modes	Medium	Medium	High	Long - Low Priority
Overarching	Improve on-time performance for Amtrak and intercity bus	High	High	High	Long - Low Priority
Service	Expand Amtrak/Intercity station hours to 8 hours daily	High	Medium	High	Long - Low Priority
Service	Implement new local Saturday service	High	High	High	Long - Low Priority
Service	Implement new local Sunday service	High	High	High	Long - Low Priority
Service	Plan for new local service if it does not exist	High	High	High	Long - Low Priority