VERGENNES PLANNING AND ENVIRONMENT LINKAGES (PEL) STUDY

Attachment 2:
Alternatives Development and Screening Technical Memorandum

April 2023

VERMONT
AGENCY OF TRANSPORTATION

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Acronyms

ACRPC ..... Addison County Regional Planning Commission
CAV ..... Connected and Autonomous Vehicle
EJ ..... Environmental Justice
FHWA ..... Federal Highway Administration
IPaC ..... Information for Planning and Consultation
ITS ..... Intelligent Transportation System
NEPA ..... National Environmental Policy Act
PEL ..... Planning and Environment Linkages
VTrans ..... Vermont Agency of Transportation
FEMA ..... Federal Emergency Management Agency
USFW ..... United States Fish and Wildlife

Executive Summary

The Vermont Agency of Transportation (VTrans), in cooperation with the Addison County Regional Planning Commission (ACRPC) and Federal Highway Administration (FHWA), is preparing a Planning and Environment Linkages Study (Vergennes PEL Study) to evaluate transportation alternatives to reduce the impacts of large trucks on VT Route 22A (Route 22A) in downtown Vergennes, while also enhancing the quality of life and economic vitality for residents in the city and surrounding towns. The Vergennes PEL Study will build upon previous planning efforts completed over the last twenty-five years that considered alternatives at different levels of detail. Improvements to the transportation system that could be constructed as a result of the PEL study would be supported with federal transportation funding and, therefore, would require approval by FHWA under the National Environmental Policy Act (NEPA).

Consistent with the provisions of both Title 23 United States Code (U.S.C.) Section 139(f)(4)(E) and 23 U.S.C. 168, VTrans intends to use information and decisions developed in the Vergennes PEL Study (such as the purpose and need statement, environmental resource impacts that are potentially moderate or severe, and the screening of concepts) to be carried forward into future environmental reviews under NEPA. Portions of the Vergennes PEL Study are intended to be adopted or incorporated by reference into the NEPA documentation for project(s) resulting from this study. While final conclusions for alternatives are made during the NEPA process, by following the PEL approach, the Vergennes PEL Study can narrow the range of concepts by identifying those that are not feasible (i.e., those that have fatal flaws) or do not meet the purpose and need for the project, thus shortening potential future NEPA processes.

The purpose and need statement[1] was used to identify an initial long list of concepts, including potential concepts from previous studies, concepts suggested by the public in prior outreach efforts, and public/agency suggestions on concepts for the current study. The initial concepts were screened by criteria that were developed through an open and transparent public process to a short list of concepts that will be further developed in future phases of the PEL study. The alternatives development and screening process during this PEL study will help identify recommended and feasible options, which can move forward to conceptual design ahead of initiating a NEPA review.

Purpose and Need

The purpose is to reduce the impacts of through truck traffic, including safety, congestion, noise, vibration, and dust on Route 22A in downtown Vergennes. Transportation solutions that reduce truck related quality of life impacts should also meet the mobility, safety, and economic vitality needs of Vergennes and the neighboring communities. The needs identified are Mobility and Access, Safety, Circulation, and Resilience, Quality of Life, Economic Vitality, and Land Use.

[1] https://vergennespel.com/media/iiodtusc/vergennes-pel-study_purpose-and-need-final-march-2022.pdf

The screening of concepts included the following steps:

- development of a long list of concepts
- development of screening criteria based on the study purpose and need
- initial screening of concepts, based on screening criteria
- secondary screening of concepts, based on geographic information systems (GIS) data
- elimination of concepts not advanced for further study

Thirteen concepts were considered within a long list of concepts, including concepts that use existing roads (including Route 22A), concepts that include the construction of new roadways, and those that focus on improvements to other freight modes. In addition, a No Build option is carried forward as a baseline for comparison to the concepts evaluated during the PEL Study.

Based on the initial screening, seven concepts were dismissed for not meeting the purpose and need. A secondary screening was conducted for the concepts that met the Purpose and Need during the initial screening. The secondary screening consisted of geographic information system (GIS) desktop level analysis. The results of the secondary screening are presented below.

- The Red Route meets the Purpose and Need but scored lower during the initial screening. The secondary screening confirmed the findings of the initial screening and added the presence of federal and state threatened and endangered species along most of the route. Based on the secondary screening, the Red Route has an equal or greater potential for impacts compared to the nearby alternate concepts (Blue Route and Pink Route). Considering that it scored much lower than those in the initial screening, the study team recommends that the Red Route be eliminated from further study.

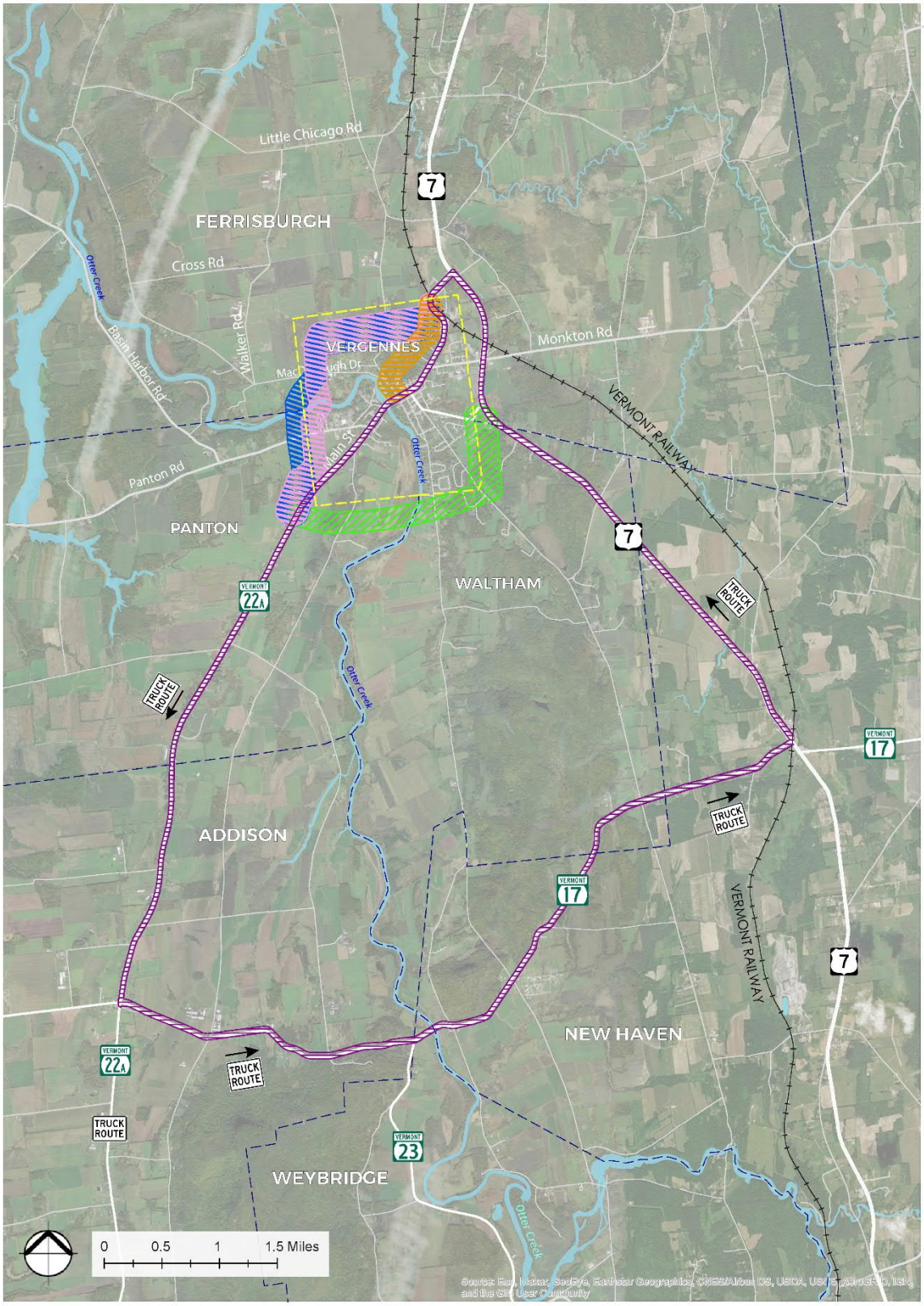
- The Purple Route meets the Purpose and Need, scored high during the initial screening, and no fatal flaws were identified during the secondary screening. Therefore, the study team recommends that the Purple Route move forward for further study.

- Both the Blue Route and Pink Route scored high during the initial screening and no fatal flaws were identified during the secondary screening. Therefore, it is recommended that the Blue Route and Pink Route move forward for further study.

- The Green Route meets the Purpose and Need but scored lower during the initial screening. During the secondary screening, potential impacts, particularly to wetlands, were identified. However, the potential impact to other resources, such as residential properties, is less. In addition, a new Otter Creek crossing upstream of the Vergennes Falls may be less challenging than the proposed crossings downstream (Red Route, Blue Route, and Pink Route). Therefore, the study team recommends that the Green Route move forward for further study.

- The Orange Route meets the Purpose and Need and scored high during the initial screening. No fatal flaws were identified during the secondary screening. Topographic challenges were identified but are not a fatal flaw. Therefore, the study team recommends that the Orange Route move forward for further study.

Figure 0-1 Routes Recommended for Further Study



1. Introduction

The Vermont Agency of Transportation (VTrans), in cooperation with the Addison County Regional Planning Commission (ACRPC) and Federal Highway Administration (FHWA), is preparing a Planning and Environment Linkages Study (Vergennes PEL Study) to evaluate transportation alternatives to reduce the impacts of large trucks on VT Route 22A (Route 22A) in downtown Vergennes, while also enhancing the quality of life and economic vitality for residents in the city and surrounding towns. The Vergennes PEL Study will build upon previous planning efforts completed over the last twenty-five years that considered alternatives at different levels of detail. Improvements to the transportation system that could be constructed as a result of the PEL study and are federally funding would require approval by FHWA under the National Environmental Policy Act (NEPA).

Additional information and current and future reports can be found on the Vergennes Planning and Environment Linkages Study website (www.vergennespel.com).

Two of the primary outcomes of the PEL process will be the preparation of and federal and state resource agency concurrence of a Purpose and Need statement and the identification of a list of reasonable transportation alternatives (concepts[2]) that may move forward for evaluation in a future NEPA environmental review. NEPA compliance is required whenever a federal agency proposes an action, grants a permit, or agrees to fund or authorize any other entity to undertake an action that has the potential to affect environmental resources. Another important outcome will be coordination of reasonable transportation concepts with local land use planning; the result of which would be advanced through separate environmental reviews. The Vergennes PEL Study will also include an implementation plan, including next steps for the future NEPA environmental review, local land use planning recommendations, and an identification of project financing strategies.

This document summarizes the alternatives development and screening process used to identify a reasonable series of improvements for the Route 22A corridor that addresses the transportation problems identified in the Purpose and Need. The concepts screening process included the:

- development of screening criteria based on the project Purpose and Need
- development of a long list of concepts
- identification of recommended concepts to advance for future consideration
- elimination of concepts not advanced

The screening process included outreach with local agencies and regional stakeholders, including the Technical and Policy committees and federal and state agencies and the general public through a hybrid online and in person public meeting. The public, committees, and agency partners provided feedback on the results of the screening and the concepts recommended for further study. Those efforts are summarized in Section 4.

[2] The term “concept” is used to describe the more conceptual level of the proposed improvement, versus “alternative” which was used during the Spring outreach.

2. Purpose and Need Statement

The study team, with public and agency input, developed the Vergennes PEL Study Purpose and Need Technical Memorandum[3], which identified the purpose and need for the project, along with the goals of the study. A purpose and need statement is an important component of PEL studies and environmental reviews prepared by VTrans, as it sets the stage for the specific problems to be addressed. The purpose defines the transportation problem to be solved. The need provides evidence that supports the assertion made in the purpose. The purpose and need statement developed for this PEL study builds upon the purpose and need from the 2019 VT 22A Alternative Truck Route Study and reflects extensive public outreach and data collection efforts described in Section 3.

The purpose is to reduce the impacts of through truck traffic, including safety, congestion, noise, vibration, and dust on Route 22A in downtown Vergennes. Transportation solutions that reduce truck related quality of life impacts should also meet the mobility, safety, and economic vitality needs of Vergennes and the neighboring communities. A summary of the needs identified are detailed below.

	**Mobility and Access:** Maintain opportunities for the movement of freight in the region and minimize and/or mitigate traffic impacts to other transportation corridors.
	**Safety, Circulation, and Resilience:** Support the continued movement, resilience and safety of travel through downtown Vergennes and in the neighboring communities.
	**Quality of Life:** Improve the quality of life and minimize negative property and environmental resource impacts in downtown Vergennes and neighboring communities.
	**Economic Vitality:** Promote economic vitality of downtown Vergennes, goods movement in Vergennes and neighboring communities, and support rural economy.
	**Land Use:** Support local and regional land use plans and policies and state land use goals.

https://vergennespel.com/media/iiodtusc/vergennes-pel-study_purpose-and-need-final-march-2022.pdf[3]

3. Long List of Concepts

Following the development of the Purpose and Need statement, the team developed a long list of concepts that contains a comprehensive range of possible solutions to the issues in the study corridor identified in the purpose and need and the study goals. The long list of concepts includes concepts proposed in previous studies (1995 ,2002, 2019), concepts identified by the study team, and community and stakeholder proposals received during public meetings and stakeholder interviews held as part of the Vergennes PEL Study. A total of 12 concepts were identified as possible solutions to reduce the impact of large truck traffic on VT Route 22A and within Downtown Vergennes. The initial long list of concepts were introduced to the public in Spring 2022 to promote discussion and to gather community input to support the concepts screening. An additional concept was identified based on input received during these public outreach sessions.

The long list of concepts includes concepts that use existing roads (including Route 22A), concepts that include the construction of new roadways, and those that focus on improvements to other freight modes. In addition, a No Build option is carried forward as a baseline for comparison to the concepts evaluated during the PEL Study.

3.1 EXISTING ROAD CONCEPTS

3.1.1 Systemwide

The Systemwide Alternative (Figure 3-1) would restrict truck trips along Route 22A through Downtown Vergennes, utilizing the existing roadway network to support the movement of trucks throughout the region. Potential existing routes may include VT Route 17 (Route 17), VT-30, VT-125, US-4, US-7, and I-89 in Vermont, or I-87 or US-9 in New York. This would effectively remove all through truck trips within Downtown Vergennes through state legislative action. Such action would codify and enforce truck restrictions to disincentivize or prohibit truck traffic on Vermont Route 22A through Downtown Vergennes. A focused version of this concept would restrict truck trips along Route 22A, shifting truck trips to Route 17 and US-7 in both directions, as detailed in Figure 3-2.

As part of this concept, regional routes may require roadway improvements, including widening or resurfacing, Intelligent Transportation Systems (ITS) infrastructure, or other regulatory changes to ensure that trucks utilize the roadways. This concept was initially identified as part of the 2002 Greater Vergennes Traffic Impact Feasibility Study.

Figure 3-1 Systemwide Alternative

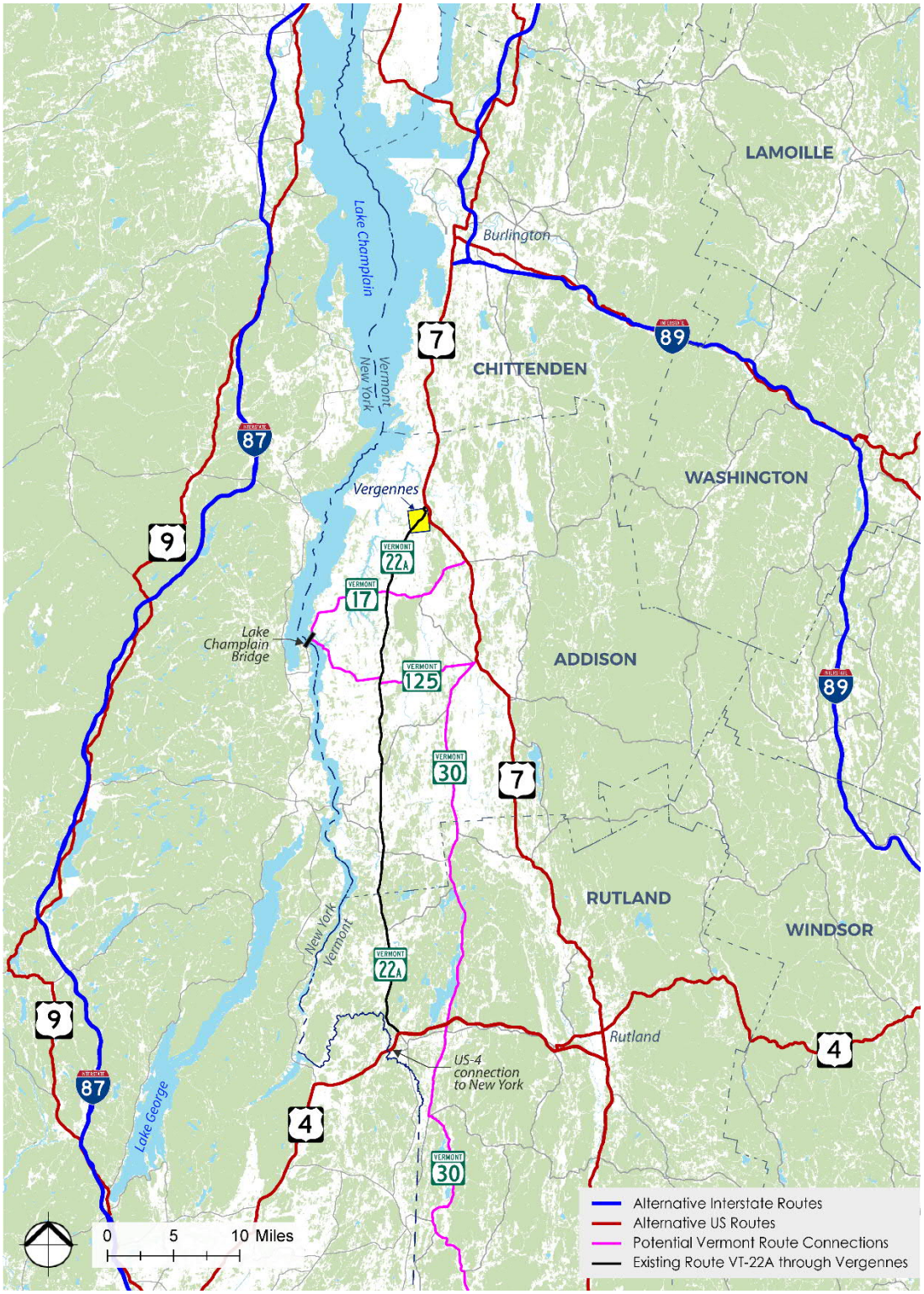
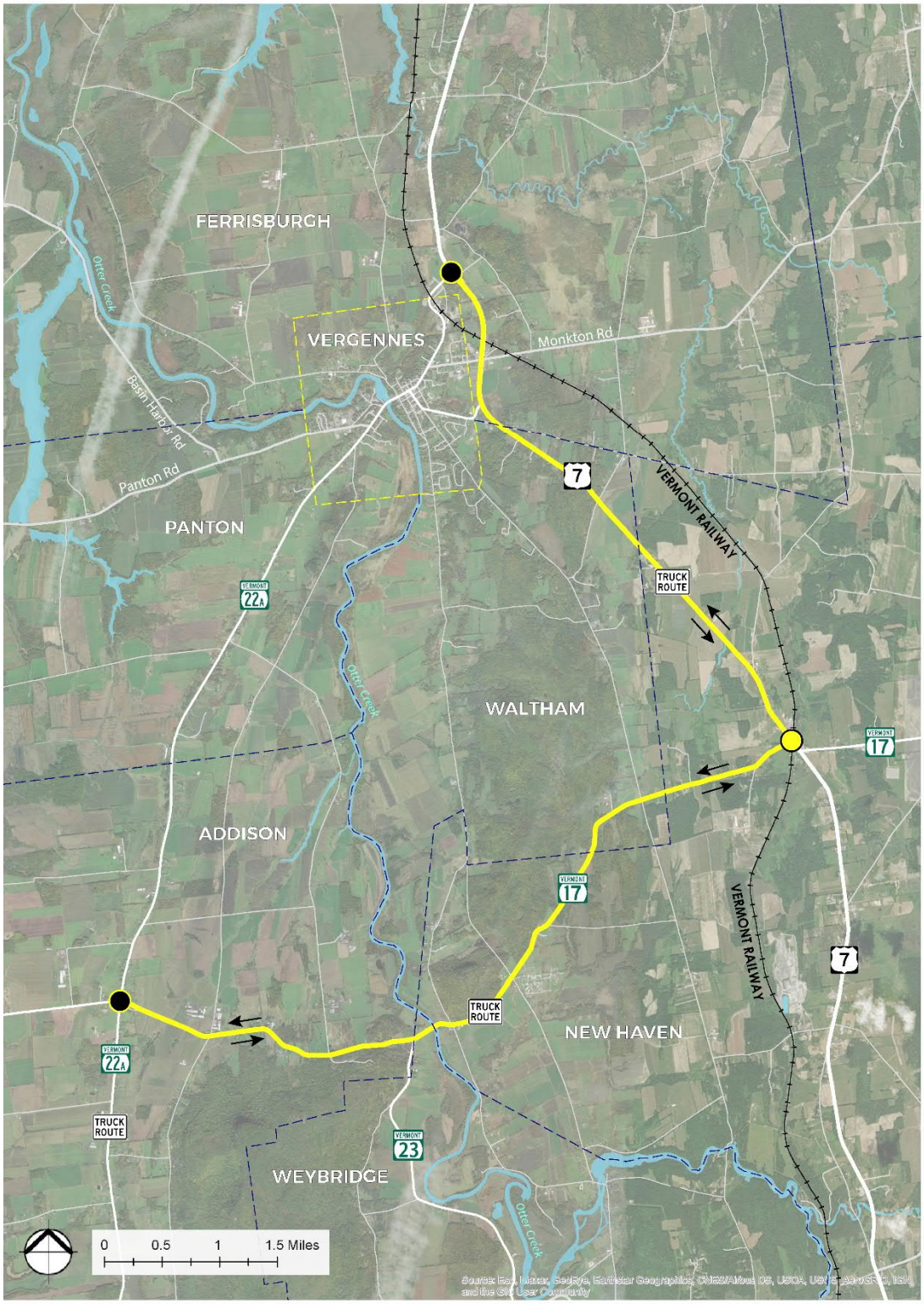


Figure 3-2 VT-17/Route 7 Concept

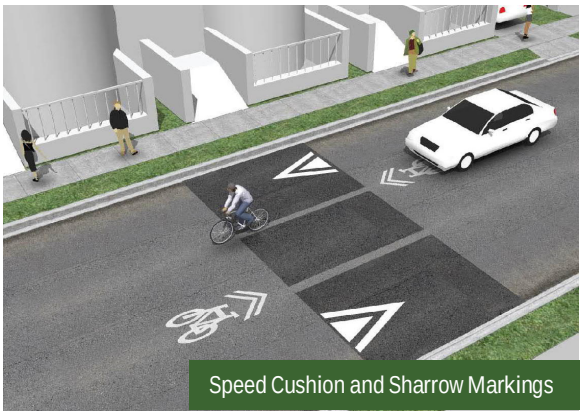


3.2 ROUTE 22A CONCEPTS

3.2.1 VT-22A Corridor Improvements

The Route 22A Corridor Improvements (Figure 3-3) would maintain Route 22A as the primary route for traffic traveling through Vergennes. This concept would incorporate roadway improvements, along Route 22A, including roadway reconstruction or widening, bicycle or pedestrian improvements, traffic calming, traffic signal upgrades, or other infrastructure improvements aimed at improving the safety and functionality of the roadway for all expected users. The concept was introduced in the 2002 Greater Vergennes Traffic Impact Feasibility Study, and some of the improvements have been made since the 2002 and 2019 studies, including in the 2020-2021 Class 1 Paving Project.

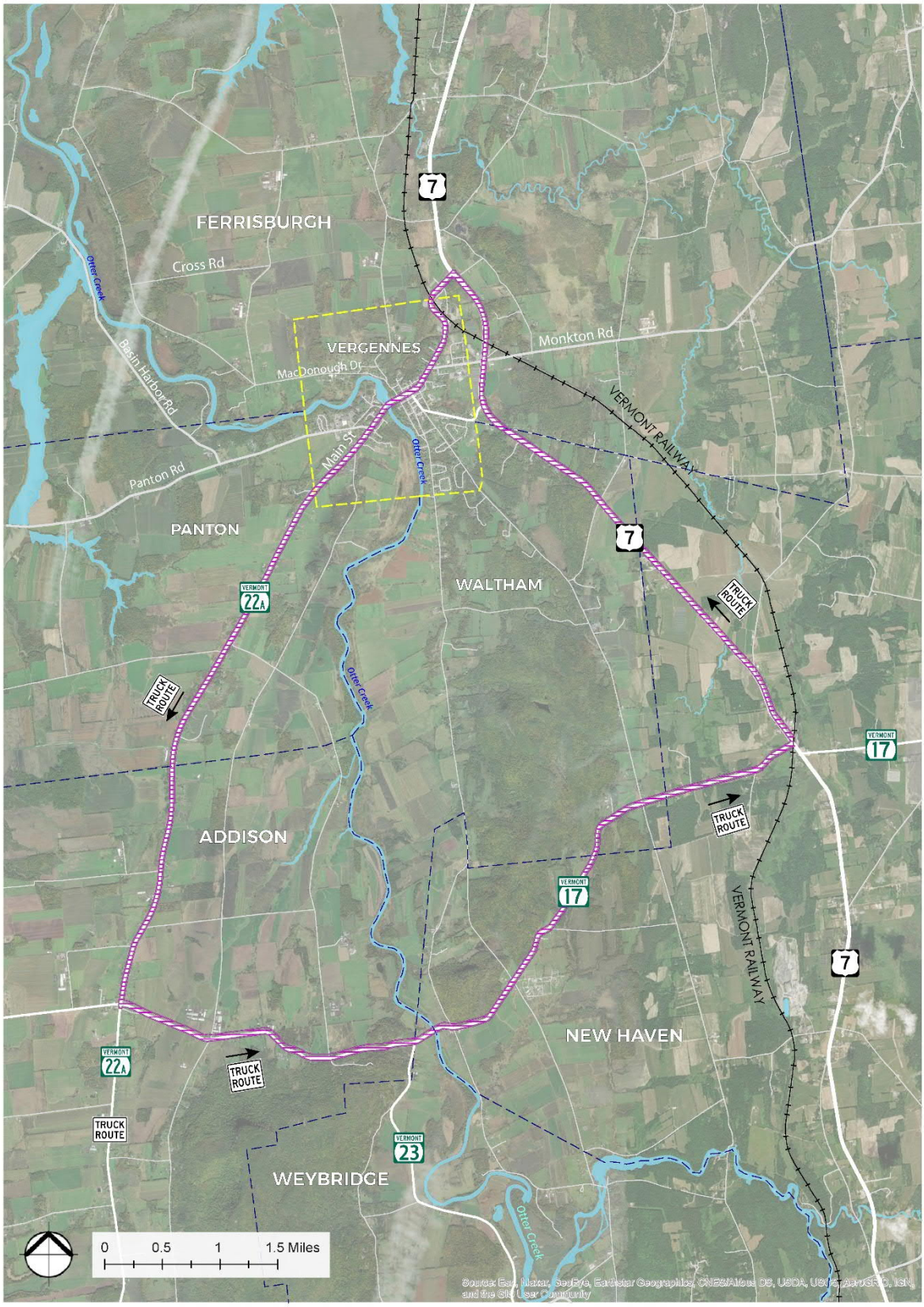
Figure 3-3 Types of Improvements for Route 22A Corridor Improvement Alternative



3.2.2 VT-17 Northbound/VT 22A Southbound

The VT-17 Northbound/VT-22A Southbound concept (Figure 3-4) would shift northbound through-truck traffic currently using Route 22A to Route 17 and U.S. Route 7, maintaining southbound truck trips on Route 22A through Vergennes. This would reduce the total volume of truck trips within Downtown Vergennes and mitigate circulation challenges associated with the steep grade on Route 22A approaching the downtown core. This concept was identified during the 2021 Vergennes PEL Study Focus Group Sessions.

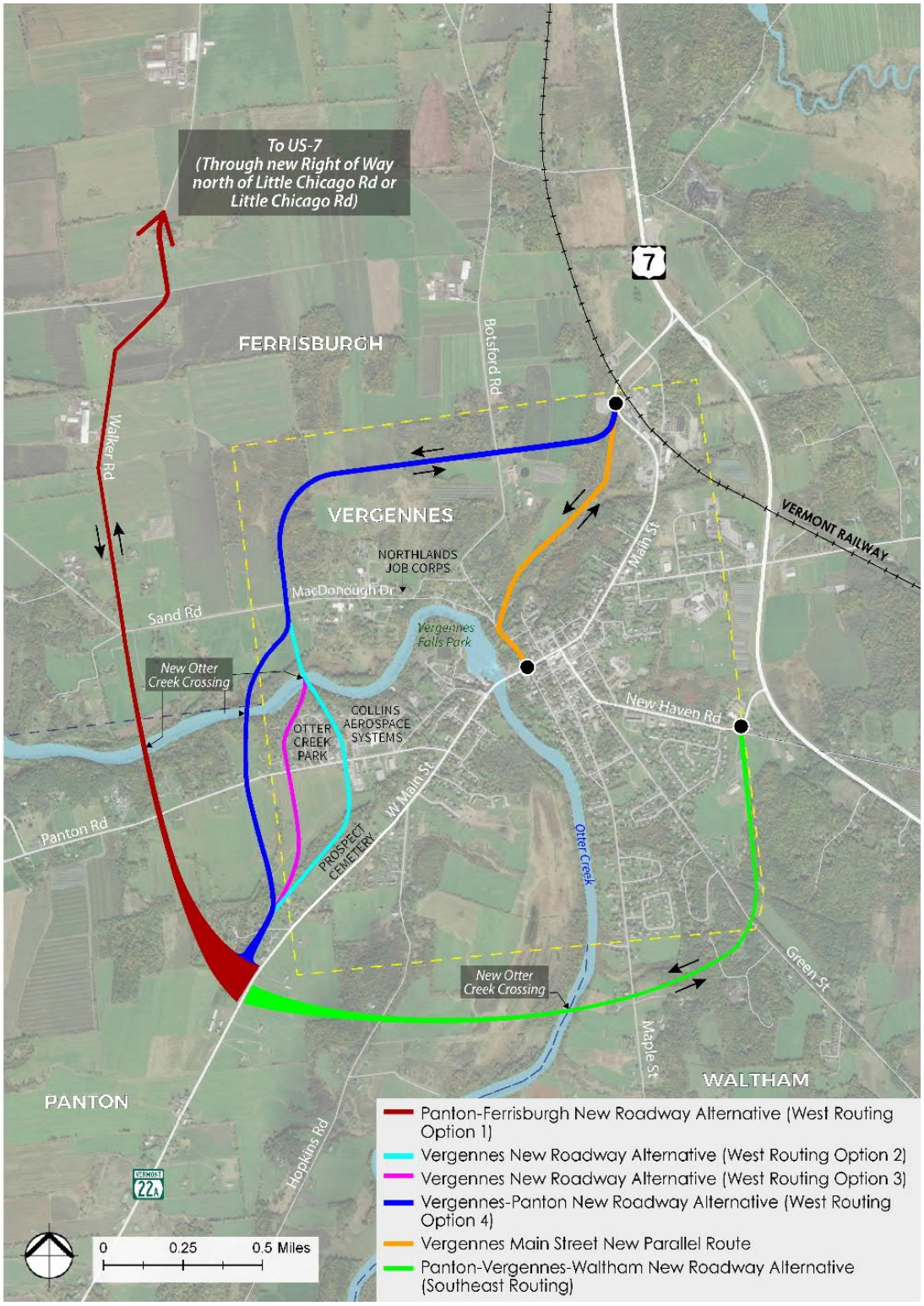
Figure 3-4 VT-17 Northbound/VT 22A Southbound Alternative



3.3 NEW ROAD CONCEPTS

These concepts were primarily identified within the 1995 Vergennes Route 22A Bypass Preliminary Design Report. This effort reviewed feasible options for the construction of a new roadway around downtown Vergennes, resulting in a shift of through truck trips from Route 22A to an alternate route. The five routes identified as part of this project are shown in Figure 3-5 and described below. A sixth concept was developed as part of the public outreach completed for the Vergennes PEL Study and is described in section 3.3.6. The new road concepts detailed in Figure 3-5 are illustrative, indicating the general path of a new route. Exact locations would be determined through a thorough review of existing land uses, right-of-way needs, permitting, traffic analyses, and design considerations Each new road concept detailed below would require substantial property acquisition and may have specific impacts to existing properties, structures and environmental resources.

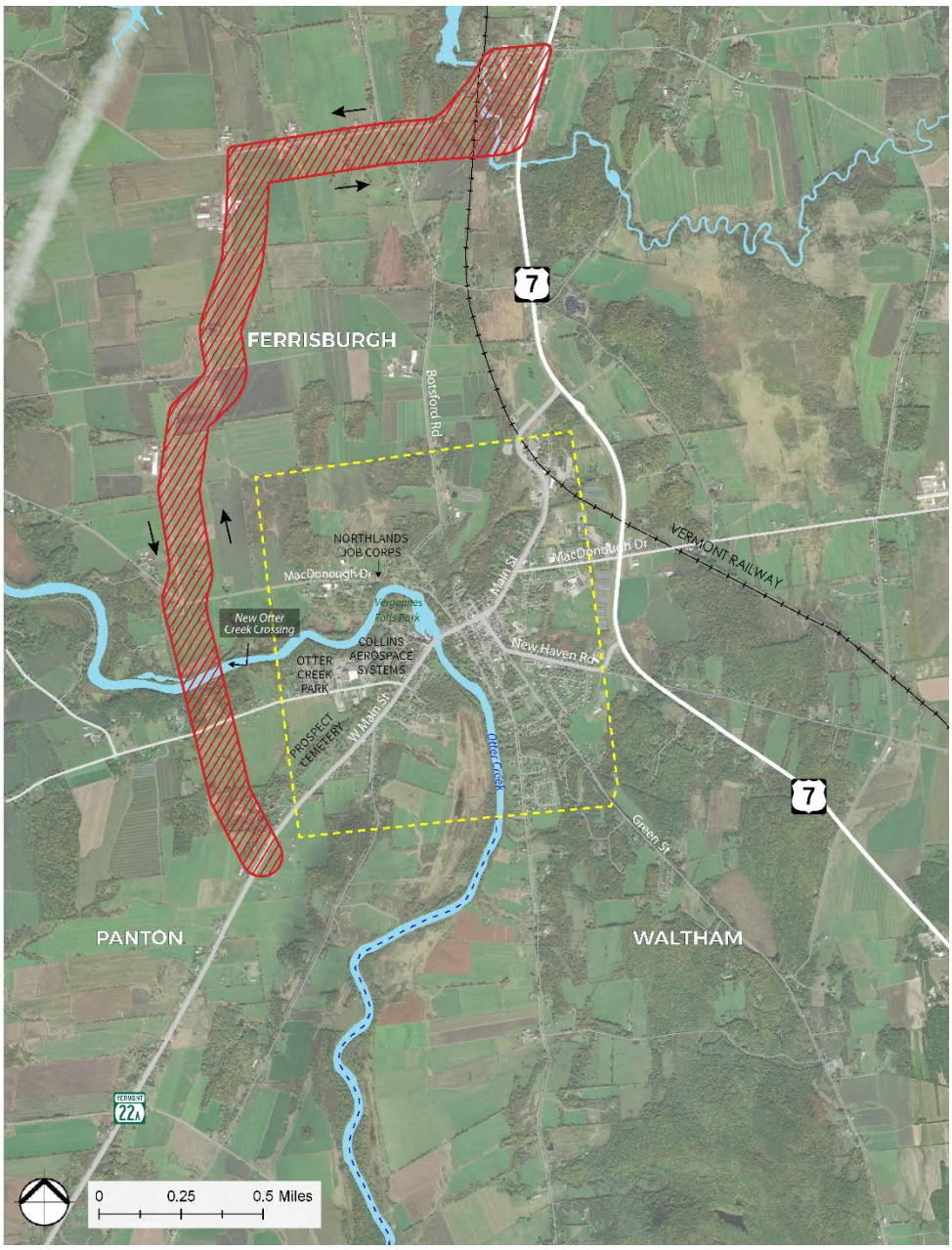
Figure 3-5 New Road Concepts



3.3.1 Red Route - Panton-Ferrisburgh New Roadway (West Routing Option 1)

The Panton-Ferrisburgh New Roadway concept (West Routing Option 1), alternatively the "Red Route", includes the construction of a new roadway contained within Panton and Ferrisburgh, as shown in Figure 3-6. This concept connects Route 22A approximately one-mile south of the Vergennes-Panton municipal boundary with Route 7 in the vicinity of Little Chicago Road in Ferrisburgh. This concept would include a new crossing of Otter Creek and may use a portion of existing roadways, including Walker Road and Little Chicago Road, each of which would require significant improvements to support additional traffic.

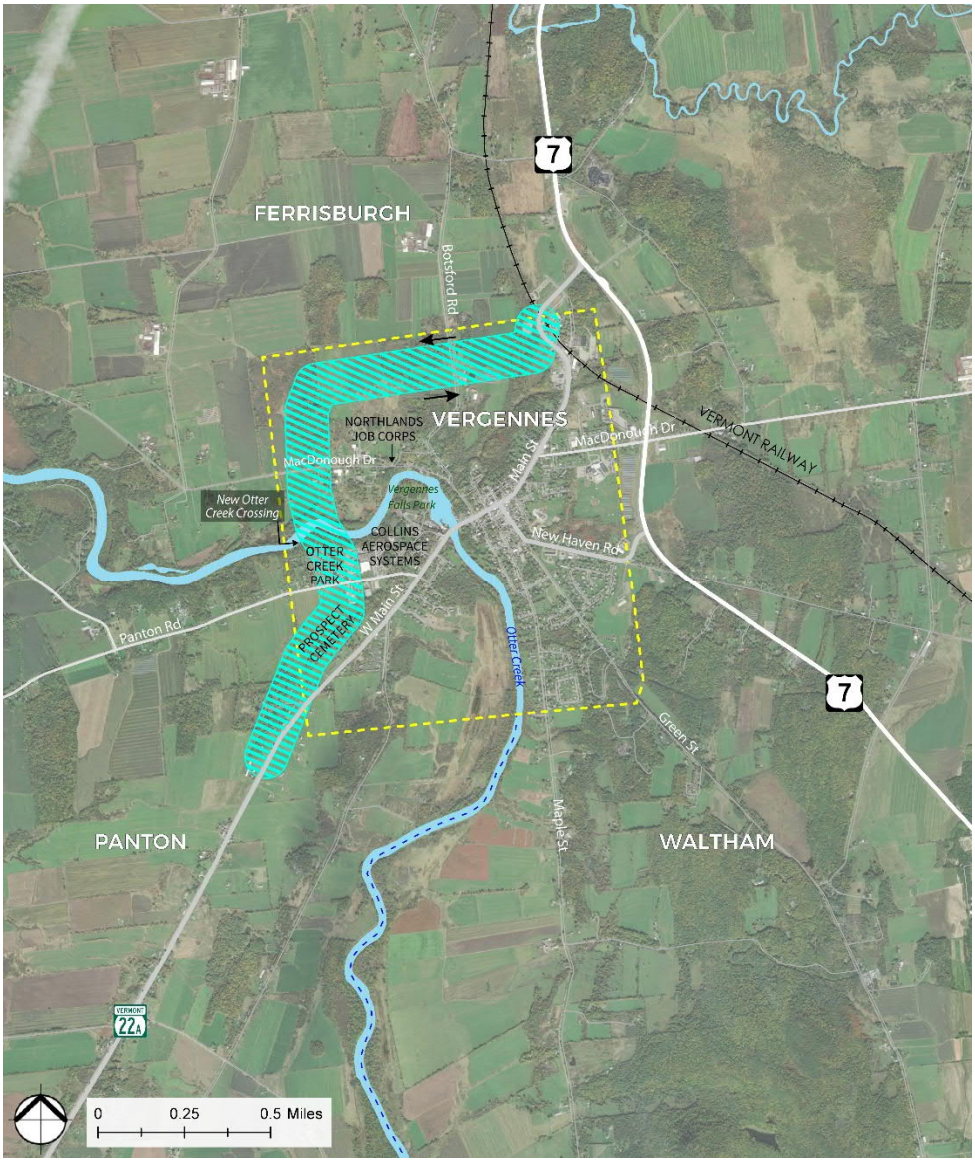
Figure 3-6 Red Route - Panton-Ferrisburgh New Roadway (West Routing Option 1)



3.3.2 Turquoise Route - Vergennes New Roadway (West Routing Option 2)

The Vergennes New Roadway concept (West Routing Option 2), alternatively the "Turquoise Route", includes the construction of a new roadway within Vergennes west of Downtown, as shown in Figure 3-7. This concept connects Vermont Route 22A near the Vergennes/Panton municipal boundary with Vermont Route 22A near the Vergennes/Ferrisburgh municipal boundary. This concept may encroach upon existing infrastructure, including a parking area near Panton Road and a drainage swale west of the B.F. Goodrich Property. This concept would include a new crossing of Otter Creek, requiring a minimum 50-foot clearance to allow for continued operation of sailboats within this segment. The Turquoise Route has the potential to impact the Otter Creek Mobile Home Park and Prospect Cemetery. An alternate routing of the southernmost segment of this route may be considered to reduce or eliminate these impacts (see West Routing Options 3 and 4) – Pink Route and Blue Route.

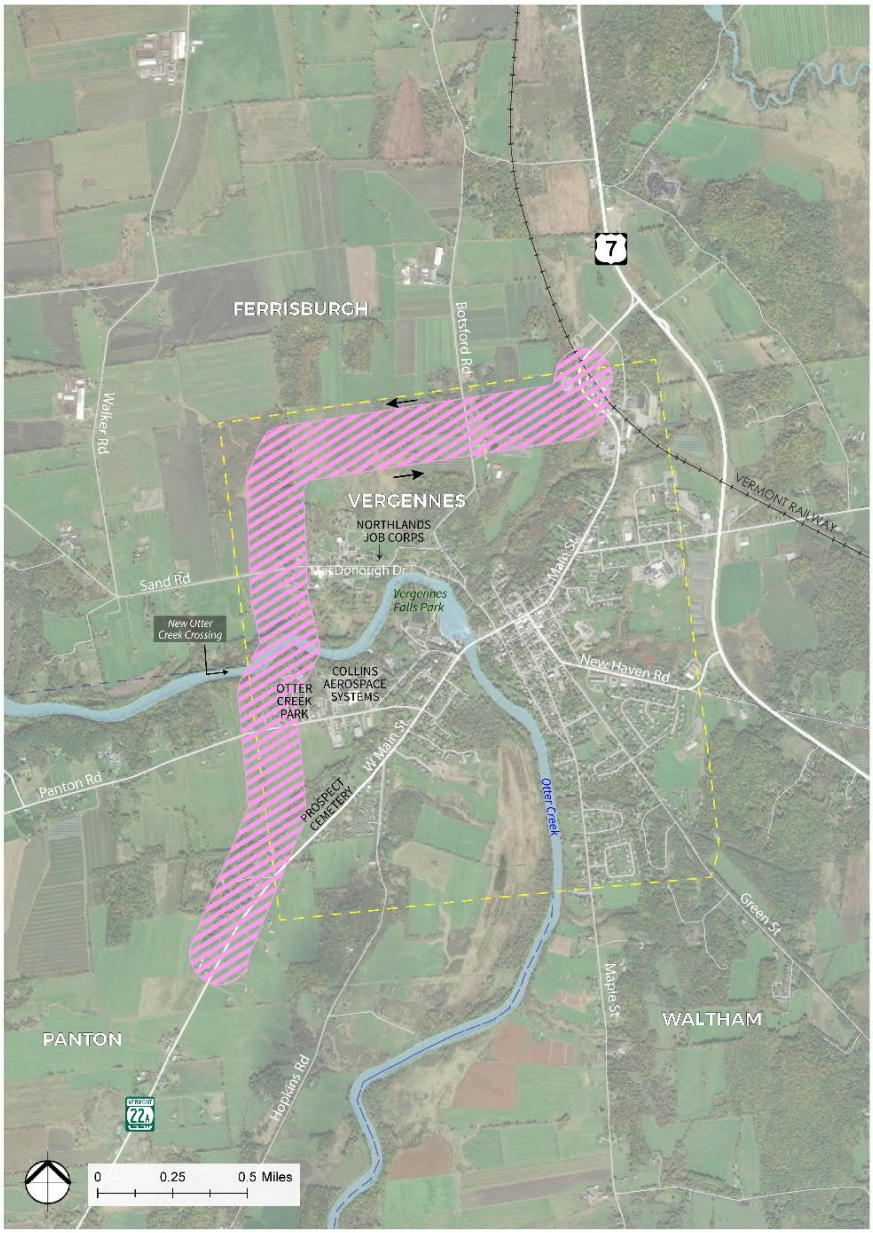
Figure 3-7 Turquoise Route - Vergennes New Roadway Alternative (West Routing Option 2)



3.3.3 Pink Route - Vergennes New Roadway (West Routing Option 3)

The Vergennes New Roadway concept (West Routing Option 3), alternatively the "Pink Route", follows a similar path (north of Otter Creek) as West Routing Option 2 (Turquoise Route) and West Routing Option 4 (Blue Route), diverging west of the Otter Creek Mobile Home Park south of Otter Creek. This concept would include a new crossing of Otter Creek, requiring a minimum 50-foot clearance to allow for continued operation of sailboats within this segment. Depending on the alignment of the Pink Route within the 'swath' shown in Figure 3-8, the new roadway would be primarily in Vergennes. However, further east, the new roadway has the potential to impact the Otter Creek Mobile Home Park and Prospect Cemetery.

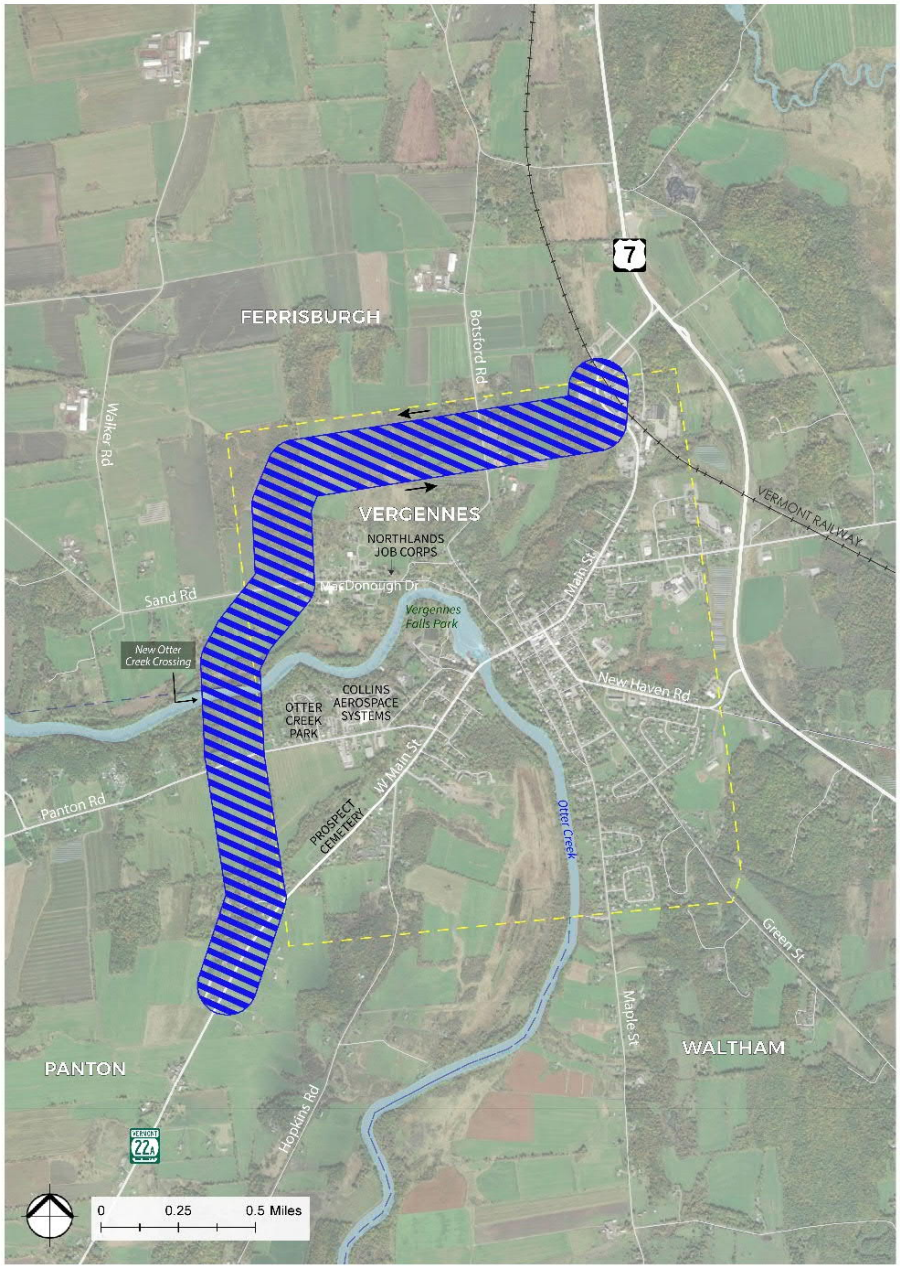
Figure 3-8 Pink Route - Vergennes-Panton New Roadway Alternative (West Routing Option 3)



3.3.4 Blue Route - Vergennes-Panton New Roadway (West Routing Option 4)

The Vergennes New Roadway concept (West Routing Option 4), alternatively the "Blue Route", follows a mostly similar path (north of Otter Creek) as West Routing Option 2 (Turquoise Route) and West Routing Option 3 (Pink Route), shifting further west than the Pink Route south of Otter Creek. This concept would include a new crossing of Otter Creek, requiring a minimum 50-foot clearance to allow for continued operation of sailboats within this segment. The southern segment of the new roadway would travel through the town of Panton, further west of the Otter Creek Mobile Home Park and Prospect Cemetery than the Pink Route or Turquoise Route.

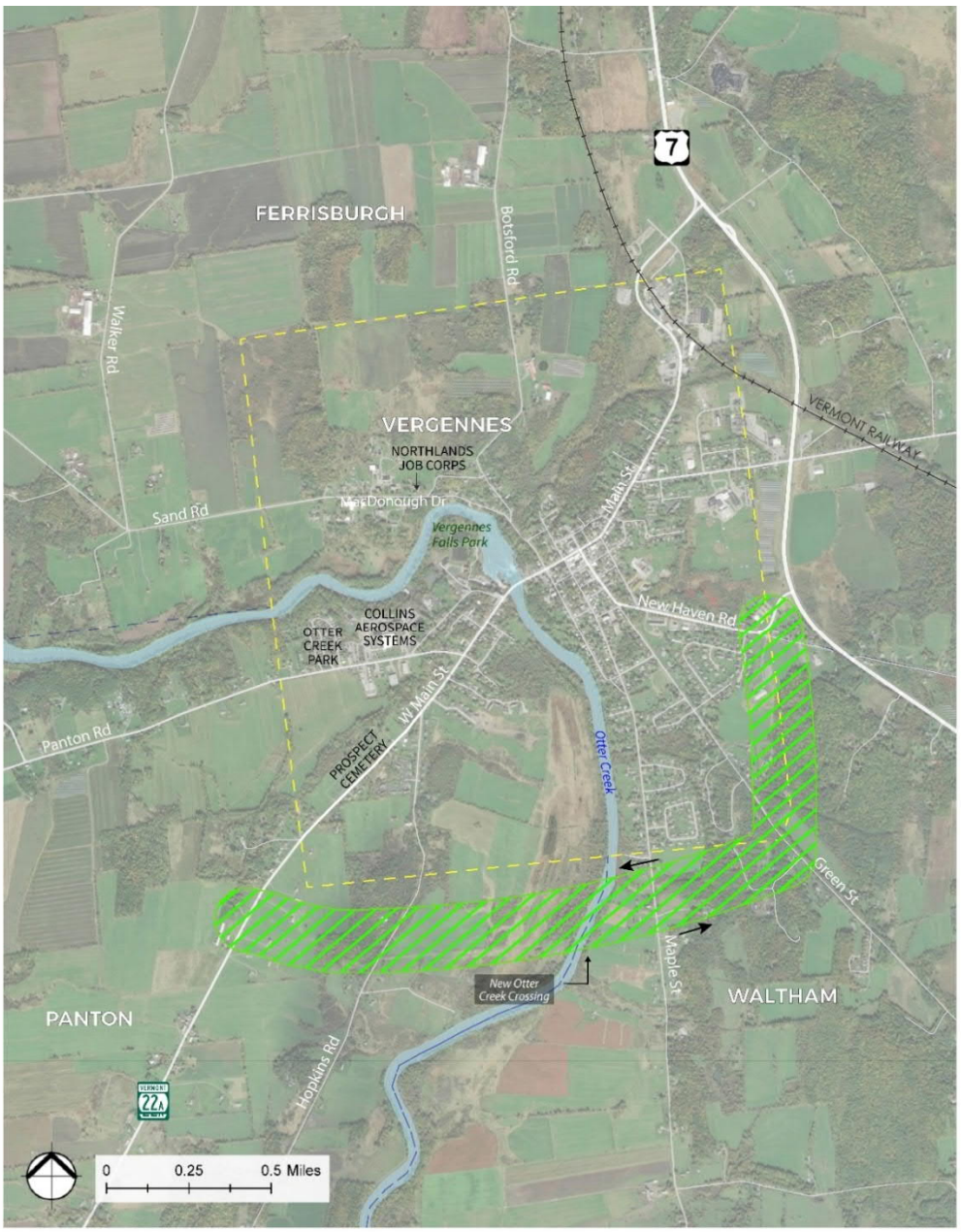
Figure 3-9 Blue Route - Vergennes-Panton New Roadway Alternative (West Routing Option 4)



3.3.5 Green Route - Panton-Vergennes-Waltham New Roadway (Southeast Routing)

The Vergennes New Roadway concept (Southeast Routing), alternatively the "Green Route", includes the construction of a new roadway primarily south and east of Vergennes within Panton and Waltham. This concept would connect U.S. Route 7 in the vicinity of New Haven Road in Waltham or Ferrisburgh with Route 22A approximately one mile south of the Vergennes/Panton municipal boundary. The new roadway would intersect with several existing roadways, including Green Street and Maple Street in Waltham and Hopkins Road in Panton. This concept would include a new crossing of Otter Creek at the Panton/Waltham town line.

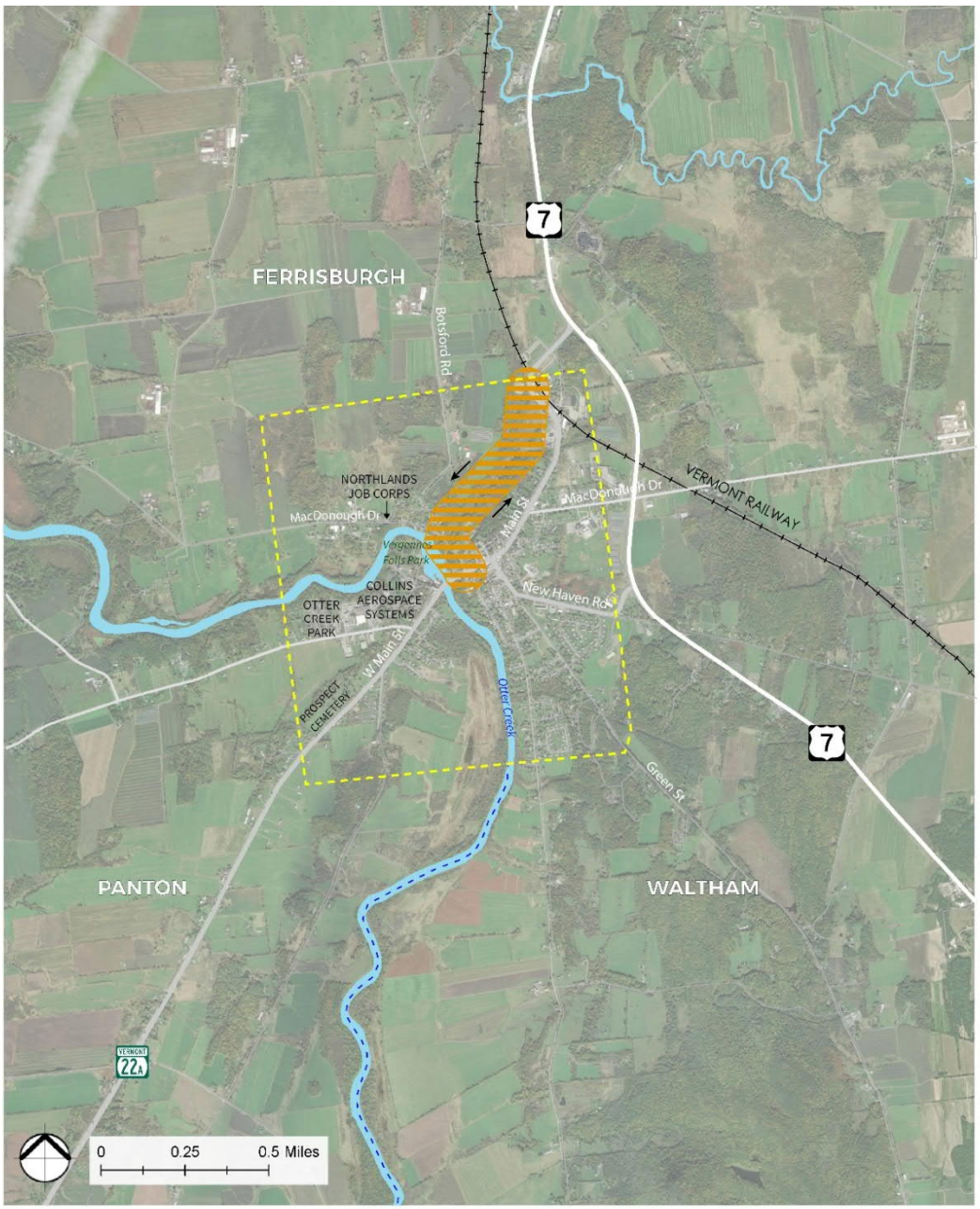
Figure 3-10 Green Route - Panton-Vergennes-Waltham New Roadway (Southeast Routing)



3.3.6 Orange Route - Vergennes Main Street New Parallel Route

In addition to the new roadway concepts identified through previous studies (detailed above), a sixth concept (local road option) was identified during the Spring 2022 Vergennes PEL Study public workshops. The Vergennes Main Street New Parallel Route concept, alternatively the "Orange Route", includes the construction of a new roadway west of Route 22A, in closer proximity to downtown, as shown in Figure 3-11. The new roadway would link Route 22A in the vicinity of the Ferrisburgh/Vergennes municipal boundary with MacDonough Drive west of Route 22A, connecting with Route 22A north of the Otter Creek Bridge.

Figure 3-11 Orange Route - Vergennes Main Street New Parallel Route

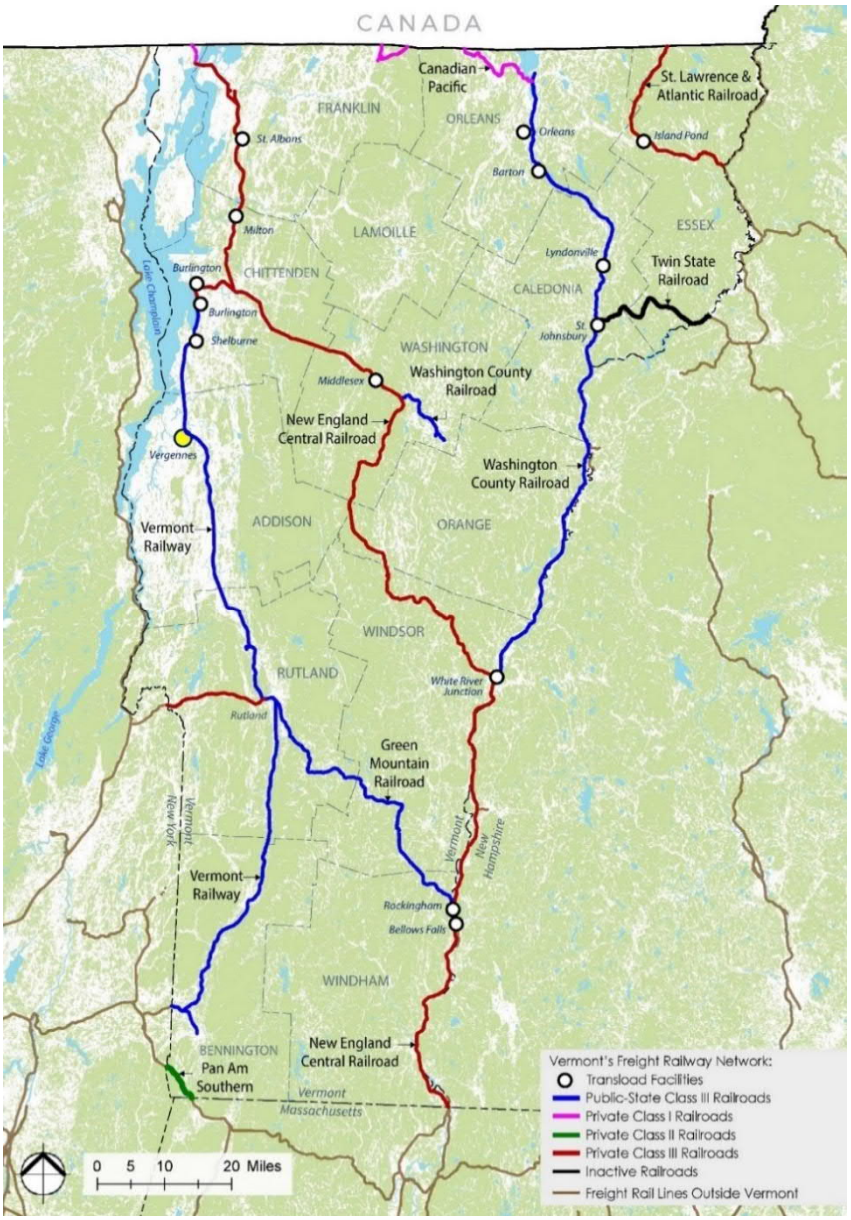


3.4 OTHER FREIGHT MODES

3.4.1 Rail Mode Options

This concept (Figure 3-12) would advance opportunities for rail freight within the region beyond existing planned improvements for the statewide rail network. This concept was identified in the 2002 Greater Vergennes Traffic Impact Feasibility Study. The Rail Mode Options would promote the shift of some cargo currently moving by truck to rail through an understanding of what types of cargo may move more efficiently by rail, infrastructure improvements, including new rail lines, sidings, upgrades of existing rail lines for weight (286k) or clearance (Plate F), or financial incentives.

Figure 3-12 Vermont Freight Railway Network



3.4.2 Water Mode Options

The Water Mode concept (Figure 3-13) would advance opportunities for maritime freight within the region. This concept was identified in the 2002 Greater Vergennes Traffic Impact Feasibility Study. The Water Mode concept would promote the shift of some cargo currently moving by truck to barge or ship, via Lake Champlain, the Champlain Canal, and Hudson River (M-87 Marine Highway). This concept would require a review of what types of cargo would financially or logistically be suitable to shift from truck to ship, as well as potential seasonal restrictions.

Figure 3-13 Water Mode Options

3.4.3 Smart Freight Solutions

Smart Freight Solutions would utilize technology enabled infrastructure and vehicles to support or expand the transition to Zero Emissions Vehicles[4] and/or connected and autonomous vehicle (CAV)[5] trucks. This concept was identified by the Vergennes PEL study team and would be advanced through statewide, regional, or Federal policy or legislative decisions. The advancement of electric or connected and autonomous vehicles may reduce quality of life (particularly noise or air) impacts within the corridor. While this concept was screened as an independent concept, smart freight solutions could be incorporated into the other concepts to support freight operations.

3.5 NO BUILD OPTION

The No Build option would advance only currently planned improvements included in the fiscally constrained VTrans Transportation Capital Budget and routine maintenance. While the No Build does not meet the Purpose and Need, it is carried forward as a baseline for comparison to the concepts evaluated during the PEL Study. The programmed transportation improvements located within the study area are listed in Table 3-1. For additional information about programmed projects, please visit VTransparency and the 22A Corridor webpage.

Table 3-1 Vermont Route 22A Corridor Projects

Name/Location	Description
FAIR HAVEN to ORWELL	• This project begins at the North end of the Fair Haven Village limits and extends approximately 15 miles to VT-73 in Orwell. • It includes pavement course-milling and replacement to improve the condition of the riding surface as well as centerline rumble strips in accordance with AOT policies, where appropriate. There will be no additional widening or other treatments included at this time.
WEST HAVEN to BENSON	• This project starts approximately ¾ of a mile north of the VT-22A intersection with Main Road in West Haven near where the existing road transitions from a section with wider shoulders to a section with narrower shoulders. This project extends 2.988 miles north ending in Benson, just over one mile south of the VT-22A intersection with Mill Pond Road. • The project will include partial reconstruction, roadway reclaim, and shoulder reconstruction and widening.
BENSON	• This project starts in Benson where West Haven-Benson ends, just over one mile south of the VT-22A intersection with Mill Pond Road and extends 4.950 miles North ending at the Benson/Orwell town line. • Project will include partial reconstruction, roadway reclaim, and shoulder reconstruction and widening.

[4] Zero- Emissions Vehicles are defined as vehicles that produce no tailpipe emissions. These include battery-electric vehicles plug-in hybrid electric vehicles, or hydrogen fuel cell vehicles.

[5] CAV are vehicles that are capable of autonomous driving and connectivity with other technological elements of the transportation system

Name/Location	Description
ORWELL	• This project begins at the Benson/Orwell town line, where the Benson project ends and extends 3.220 miles north ending at the intersection of VT-22A with VT-73. • Project will include partial reconstruction, roadway reclaim, and shoulder reconstruction and widening.
ORWELL to ADDISON	• This project begins at VT-73 in Orwell and extends approximately 20 miles to Addison. • This reclamation project will include rehabilitation of a portion of the subbase and will provide longer-term benefits within the existing footprint.

4. Agency Coordination and Public Involvement

VTrans is committed to involving federal, state, and local agencies and the public throughout the Vergennes PEL Study process. The Vergennes PEL Study aims to reach consensus among stakeholders for the vision, phasing, and financing of transportation solutions on Route 22A, building upon past studies and projects in the area. Stakeholder involvement is emphasized throughout the PEL process and feedback has and will continue to be solicited from federal and state agencies and the public at key decision points to foster consensus on recommendations.

4.1 SPRING WORKSHOPS

The Vergennes PEL study team conducted three workshops between May 2022 and June 2022 to present the draft long list of concepts to the public and to develop screening criteria to be used in the next phase of alternative evaluation. To engage with as many people as possible, workshops were provided both in-person and virtual and one workshop specifically targeted key stakeholders in the Otter Creek Park Community.

4.1.1 In-Person Meeting

A public workshop was held at the Vergennes Opera House on Thursday, May 26, 2022. This workshop started with a short presentation about the Vergennes PEL Study, the draft long list of concepts and the screening criteria. After the presentation, attendees were separated into two groups to review the various concept types. The groups rotated after 20 minutes to allow attendees time to review, ask questions and comment on all concepts presented. The stations were:

- New Road Concepts (new roadways to divert through truck traffic)
- Existing Road Concepts (VT 17, US 4, US 7, I-87, etc.)
- VT 22A Concepts (changes to improve the route without redirecting traffic, No-Build)
- Other Freight Modes (rail, water, freight technologies, etc.)

Following the small group discussions, the larger group returned to share highlights from the discussion and discuss next steps in the Vergennes PEL process. Hard copy pamphlets were handed out to attendees providing an overview of each of the concepts and the draft screen criteria. Attendees were encouraged to take the pamphlets home and if any other thoughts came to mind to share with the PELS team.

The workshop was attended by over twenty participants, a majority from Vergennes, as well as some residents from Addison. Participants were interested in the opinions heard during the Otter Creek Park workshop and expressed concern

for the potential impacts to residents of the Otter Creek Park. Attendees noted the importance of coordination and planning with neighboring towns.

There was general support for grouping concepts or elements of concepts together in final recommendations. In terms of the screening criteria, attendees commented that the criteria should include impacts on other, nearby communities as well as cost of the concepts. While cost is not a screening criteria at the initial level of screening, it will be considered as potential concepts are progressed. There was general concern regarding the lack of redundancy in the transportation system and the need for an additional bridge – especially in relation to emergency vehicle access.

4.1.2 Otter Creek Park Community

A supplemental workshop was held on the grounds of the Otter Creek Park Community on Tuesday, May 24, 2022, with the goal of directly engaging with the mobile home park residents and other residents nearby along Panton Road. This workshop featured an open house format which allowed attendees to arrive between 5 and 7 PM and visit four stations which described the different groups of concepts. Attendees had time to review the concepts, ask questions and provide comments. The stations were:

- New Road Concepts (new roadways to divert through truck traffic)
- Existing Road Concepts (VT 17, US 4, US 7, I-87, etc.)
- VT 22A Concepts (changes to improve the route without redirecting traffic, No-Build)
- Other Freight Modes (rail, water, freight technologies, etc.)

A board with the draft screening criteria was also presented and discussed at the workshop. Hard copy pamphlets were handed out to attendees providing an overview of each of the concepts and the draft screen criteria. Attendees were encouraged to take the pamphlets home and if any other thoughts came to mind to share with the study team. Over forty residents of Otter Creek Park and the surrounding neighborhood attended.

Participants appreciated the opportunity to see all options and provide input and were pleased with the variety of options presented. There were mixed opinions about whether truck traffic in downtown Vergennes is a problem. Participant's concerns included how potential new road concepts would impact Otter Creek Park and how the real estate market in the area could be negatively affected by the project.

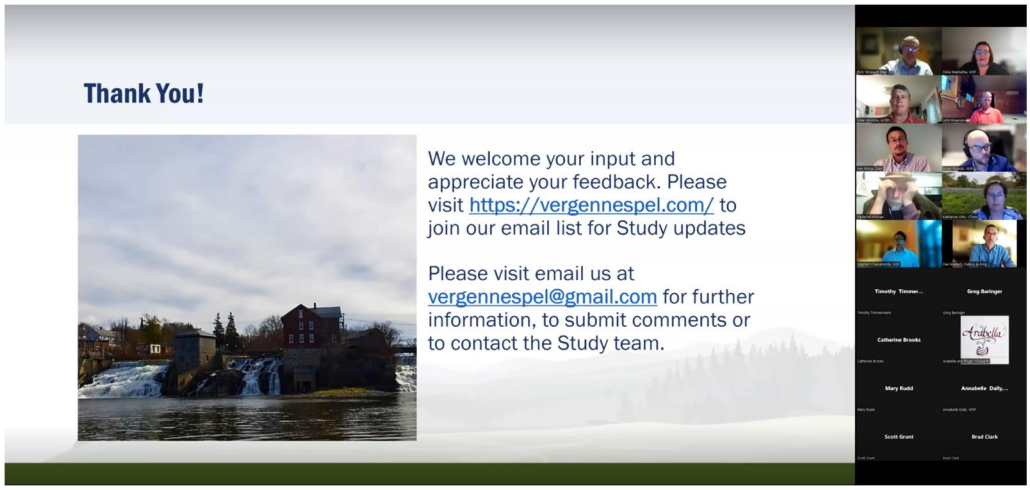
4.1.3 Virtual Workshop

A virtual workshop was conducted via Zoom on Wednesday, June 1, 2022 and attended by over twenty participants. The virtual workshop started with a short presentation about the Vergennes PEL Study, the draft long list of concepts and the screening criteria. Attendees were divided into two breakout rooms with two facilitators, each representing one of the concept types. After 20 minutes to discuss each category, the facilitators rotated to the other breakout room so that all attendees could provide feedback on all concepts options in a small group, virtual format. Attendees had time to review the concepts, ask questions and provide comments. The breakout rooms were:

- Room 1: VT 22A Concepts (changes to improve the route without redirecting traffic, No-Build) and Existing Road Concepts (VT 17, US 4, US 7, I-87, etc.)
- Room 2: New Road Concepts (new roadways to divert through truck traffic) and Other Freight Modes (rail, water, freight technologies, etc.)

Following the breakout rooms, the group reconvened to share highlights from the discussion and discuss next steps in the Vergennes PEL process.

Attendees noted the importance of public outreach. Participants expressed their appreciation for an opportunity to review and expressed the need to be included at every point in the process. Attendees also noted that outreach should be expanded to the Town of New Haven, Panton, Waltham and Ferrisburgh. for b the process and gathering public feedback. In terms of the screening criteria, participated noted that cost should be represented in the screening criteria and considered early on in the screening process to avoid eliminating financially viable solutions in favor of financially non-viable solutions.



4.2 FALL PUBLIC MEETING

The Vergennes PEL study team held a public meeting on November 3, 2022, in-person at the Vergennes Opera House and virtually via Zoom. Approximately 34 people joined in person and 25 joined online. The meeting was primarily attended by Vergennes residents. The study team shared how the screening criteria was applied to the long list of concepts, the concepts proposed to be advanced, and the concepts proposed to be dismissed. The study team collected public feedback using polls, as well as both verbal and written comments.

The following summarizes what we heard during the meeting:

- Attendees generally supported the Vergennes-Panton New Roadway (West Routing Option 1)concept (Red Route) but shared concerns about enforcement, the location of a future Otter Creek bridge, impacts to the Central Business District, and potential impacts in Panton.

- Attendees generally opposed advancing the Vergennes Main Street New Parallel Route concept (Orange Route). Reasons expressed were excessive grades and difficult turning movements, concern for the stability of existing Otter Creek Bridge, and the perception that the concept will not remove truck traffic or impacts from Vergennes.

- The attendees had mixed reactions to the VT-17 Northbound/VT 22A Southbound concept (Purple Route). Some attendees expressed support for this route as an interim solution and supported the concept because it would not require new infrastructure. The public also stated

reasons they did not support the concept, which included, no redundancy created, shifts traffic impacts to other communities, and the perception that Route 17 is not suitable for trucks.

- Some attendees suggested the study team reconsider the Panton-Vergennes-Waltham New Roadway (Southeast Routing) concept (Green Route) and Panton-Ferrisburgh New Roadway (West Routing Option 1) concept (Red Route).

4.3 COMMITTEE OVERSIGHT AND AGENCY COORDINATION

Throughout the PEL study, specialized committees/working groups will be consulted to provide topic-specific input and play a role in guiding the direction of the study. Members of the committees include representatives from regional and state agencies, and local businesses and organizations. Technical Committee, Policy Committee, and Interagency Coordination efforts are outlined below.

4.3.1 Technical Committee

The Technical Committee consists of subject matter experts that review and verify the scope of work, methods and assumptions used by the consultants to carry out the study, and any resulting recommendations. The Technical Committee's role is to ensure that the Policy Committee has reliable information on which to base its findings and decisions. Membership includes VTrans planning, highway design, structures, bicycle and pedestrian, and environmental staff; ACRPC and municipal land use planners; FHWA staff; municipal public works and road foreman; and economic development specialists.

Technical Committee meetings were held on February 8, 2022 to review the draft Purpose and Need Statement, July 20, 2022 to review the long list of concepts and the screening criteria to evaluate the concepts, and October 11, 2022 to review the initial concepts screening. During the October meeting, the committee reached consensus that that methodology and information considered in the scoring matrix is sufficient to be recommended for public review, agency concurrence, and policy committee consideration with the inclusion of the input received during the meeting.

A joint Technical Committee and federal and state agency partner meeting was held on November 10, 2022. The focus of the meeting was to share the input received during the November 3 public meeting. public input received over the fall. The committee members and agency partners agreed that a secondary screening would be needed to address the questions and comments received during the public meeting as well as some initial concerns raised by Technical Committee members at their October 2022 meeting.

A joint Technical Committee and federal and state agency partner meeting was held on March 1, 2023. The focus of the meeting was to share the results of the secondary screening. In general, the committee and agency partners agreed with the study team's recommendation to further study the Vergennes-Panton New Roadway Concepts (blue and pink routes), the VT-17 Northbound/VT-22A Southbound (purple route), the Vergennes Main Street New Parallel (orange route), and the Panton-Vergennes-Waltham New Roadway (green route). Some committee members expressed concern on the feasibility of the orange route and some agency partners (EPA and Army Corps of Engineers) expressed concern for eliminating the red route for further study. The committee voted on the study team's recommendation

and the potential for further study of the Panton-Ferrisburgh New Roadway (red route) pending further discussions with the Army Corp of Engineers and the EPA.

4.3.2 Policy Committee

The Policy Committee is charged with endorsing the findings in the PEL and making recommendations to VTrans on study planning decisions (i.e., purpose and need statement, initial short-list of concepts) which would be carried forward into a future environmental review. The Policy Committee functions as a body with wide knowledge that can speak on behalf of many communities impacted by this study and will take into consideration recommendations from the Technical Committee in its decision-making process. It consists of representatives from the seven municipalities potentially affected by the PEL Study (Addison, Ferrisburgh, Panton, New Haven, Vergennes, Waltham, and Weybridge), VTrans, and other stakeholders representing the region, environment, and economy.

A Policy Committee meeting was held on December 21, 2022 to review the results of the initial concepts screening and share the feedback received during the public meeting. Eleven of eighteen voting members and four of the five non-voting members were present. The policy committee members provided additional input on the concepts and supported the study team's next steps, including the need for secondary screening.

A Policy Committee meeting was held on April 3, 2023. The focus of the meeting was to share the results of the secondary screening. During the meeting, the Policy Committee reached consensus and agreed with the results of the initial screening. The Policy Committee was also asked to vote on whether they agreed on the concepts recommended for further study. The Policy Committee reached consensus and agreed with concepts recommended moving forward for further study (Purple, Red, Pink, Blue, Green, and Orange Routes). However, three of the "yes" votes had caveats or additional comments which were related to city and town boundaries, and concern about advancing the pink-blue routes and the green route.

4.3.3 Agency Coordination

In advance of future environmental reviews, an Agency Coordination Plan (ACP) was developed to define the roles and guide coordination activities through the duration of the Vergennes PEL Study with state and federal agencies who may be cooperating and participating under NEPA in future environmental review(s). VTrans will use information developed in the Vergennes PEL Study to inform the NEPA process for capital projects that are initiated subsequent to this study. Integrating transportation planning and environmental screening early leads to value-added projects that have undergone stakeholder and public review with a collaborative interagency approach. This method lends itself to early problem identification and solving, requiring less duplication of effort in the NEPA process and potentially accelerating project delivery and minimizing overall costs.

An agency meeting was held on February 28, 2022 to obtain agency feedback on the draft Purpose and Need Statement and October 17, 2022 to review the initial concepts screening. During the October meeting, the state and federal agency partners agreed that the methodology and information considered

in the scoring matrix is sufficient to be recommended for public review and policy committee consideration with the inclusion of the input received during the meeting.

A joint Technical Committee and federal and state agency partner meeting was held on November 10, 2022. This was done at the request of federal agencies who wanted to directly hear the comments and feedback from members of the Technical Committee. The focus of the November 10 meeting was to share the input received during the November 3 public meeting and public input received over the fall. The committee members and agency partners agreed that a secondary screening would be needed to address the questions and comments received during the public meeting as well as some initial concerns raised by Technical Committee members at their October 2022 meeting. During the months of January and February 2023, the study team met individually with state and federal agency partners to discuss the secondary screening.

A joint Technical Committee and federal and state agency partner meeting was held on March 1, 2023. The focus of the meeting was to share the results of the secondary screening. In general, the committee and agency partners agreed with the study team's recommendation to further study the Vergennes-Panton New Roadway Concepts (blue and pink routes), the VT-17 Northbound/VT-22A Southbound (purple route), the Vergennes Main Street New Parallel (orange route), and the Panton-Vergennes-Waltham New Roadway (green route). Some committee members expressed concern on the feasibility of the orange route and some agency partners (EPA and Army Corps of Engineers) expressed concern for eliminating the red route for further study.

5. Concepts Screening

The intent of the alternatives development and concept screening is to identify and screen a broad range of reasonable concepts for the area and/or corridor being studied. The alternatives development and screening includes developing screening criteria based on the Purpose and Need and goals, developing a range of reasonable concepts, and narrowing options and concepts through a screening process. The screening process documents the elimination of concepts to limit the need for consideration during future NEPA process(es) and identify transportation projects that will be more fully evaluated during future project development and NEPA documentation.

5.1 CRITERIA

The study team developed screening criteria based on needs (Section 2): Mobility and Access, Safety and Circulation, Quality of Life, Economic Vitality, and Land Use. The screening criterion were shared with the Technical and Policy Committees and the public during public workshops held in May and June 2022. Public input from the workshops were used to further refine the screening criteria. The long list of concepts were evaluated to see how well each concept met the following screening criteria.

5.1.1 Mobility and Access

Maintains freight mobility throughout the region; concept does not significantly hinder or inhibit the movement of freight goods through the Addison County region and continues to support or improve freight operations in this critical economic corridor.

Improves access to destinations in downtown Vergennes for all modes of transportation: concept improves access to local destinations in Vergennes including businesses, amenities such as Vergennes Falls Park, essential services, recreational activities, and places of worship, for all modes with a local destination including motorized (bus, truck, car), non-motorized (biking, walking, rolling, etc.) and maritime (boating) modes of transportation.

5.1.2 Safety and Circulation

Creates redundancies to improve resilience of road network; concept will create new means of regional access that provide additional options for transportation between regional origins and destinations in Addison County, Vermont, and New York. In addition to redundancy, a new Otter Creek crossing supports resilience and climate change.

Improves motorized circulation through and within the region; concept will support motorized (personal vehicle, transit, freight, etc.) connectivity throughout the many regional corridors via local, state, and regional routes by considering improvements to roadway infrastructure, parking, and overall traffic reduction.

Improves active transportation (bicycle, pedestrian, transit) through and within the region; concept will support non-motorized (biking, walking, transit) connectivity by implementing complete

streets/streetscape improvements that will improve or expand upon existing infrastructure, improve/expand sidewalks and other pedestrian/bicycling amenities, etc. that will encourage non-motorized accessibility and safety. This may include, but is not limited to improved crossing infrastructure, sidewalk improvements, implementation or expansion of regional bicycle routes, and safety improvements on regional routes. Improved pedestrian or cyclist infrastructure will ultimately provide improved access and connections to transit stops within the corridor.

Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes; improve the overall safety for all user types by minimizing conflict points at vehicle-vehicle or vehicle-pedestrian crash hot spots, and improved visibility along Route 22A within downtown Vergennes.

5.1.3 Quality of Life

Reduces truck noise, dust, and emissions in downtown Vergennes, concept results in an overall reduction in truck emissions as well as noise from air brakes, horns, diesel engines, and other sources of noise and vibration.

Avoids potential impacts to natural and water resources; concept minimizes or eliminates impacts to vulnerable environmental resources such as wetlands, forested areas, endangered species habitats, marine resources, and others.

Maintains and/or supports community character; concept does not significantly alter and/or supports the vision of impacted communities by maintaining overall character such as land use, infrastructure layout, and the overall context of the community.

5.1.4 Economic Vitality

Promotes economic vitality of Downtown Vergennes; concept will support economic activity in downtown Vergennes by supporting access to local businesses and maintaining non-freight traffic to the area, supporting downtown as a regional destination for commercial and tourist activity.

Supports regional economic vitality; concept will support economic activity in the Addison County region by supporting access to local businesses in Vergennes and other proximate municipalities, maintaining non-freight traffic to the area, supporting key economic corridors as regional destinations for commercial activity.

5.1.5 Land Use

Consistent with existing regional land uses; concept will not significantly alter existing land uses in the region, including but not limited to natural resource protection areas, farmland, residential communities, or economic centers.

Aligns with future and projected regional land uses and statewide goals; concept aligns with regional land use development plans for Addison County and the surrounding region based on municipal, regional, and statewide long-term planning documents.

5.1.6 Equity

Balances distribution of transportation resource benefits; concept provides benefits to not only the downtown Vergennes community, but provides benefits to communities elsewhere in Vergennes, as well as surrounding/neighboring communities.

Avoids disproportionate burdens to surrounding communities, including historically disadvantaged and environmental justice communities; any potential negative impacts posed by the concept are not disproportionately placed on neighborhoods or segments that are historically disadvantaged or are designated environmental justice communities based on income/poverty, English proficiency, or racial identity. Additionally, potential impacts are not disproportionately placed on communities outside of Vergennes, while supporting improvements that only benefit Vergennes.

5.2 INITIAL SCREENING

The concepts were scored qualitatively to evaluate the concepts at a high level to ensure that the concepts meet the study purpose and need. Concepts were screened using a rating system shown in Table 5-1. Each of the criteria were scored using one of the five ratings denoting: Substantial Positive Effect (+ +), Some Positive Effect (+), Neutral(o), Some Negative Effect (-), and Substantial Negative Effect (- -). The ratings for each criterion were compiled to determine a total rating for each concept. This total rating was used to determine which concepts should be advanced for further study. Concepts that do not satisfy the Purpose and Need were screened out from further evaluation.

Table 5-1 Rating

RATING	MEANING
+ +	Substantial Positive Effect
+	Some Positive Effect
o	No Effect or Neutral
-	Some Negative Effect
- -	Substantial Negative Effect

Table 5-2 through Table 5-7 present the screening for all 13 concepts and the No Build, followed by individual tables for each concept that include rationale for each screening criteria. The concepts' total score range from -7 to 7. The No Build and Water Mode Options scored the lowest, followed by the Route 22A Corridor Improvements. The concepts that received the highest total score include Red Route (Vergennes-Panton New Roadway Concept (West Routing Option 4)) with a total score of 7, followed by the Purple Route (VT-17 Northbound/VT 22A Southbound Concept) and Orange Route (Vergennes Main Street New Parallel Route) – both with a score of 6. These three concepts are presented in Figure 5-1. The Systemwide, VT-22A Corridor Improvements, Rail Mode, Water Mode, and Smart Freight Solutions do not meet the Purpose and Need to reduce the impacts of truck traffic in downtown Vergennes. The No Build option also does not meet the Purpose and Need, but is carried forward as a baseline for comparison, per NEPA.

Figure 5-1 Highest Scoring Concepts

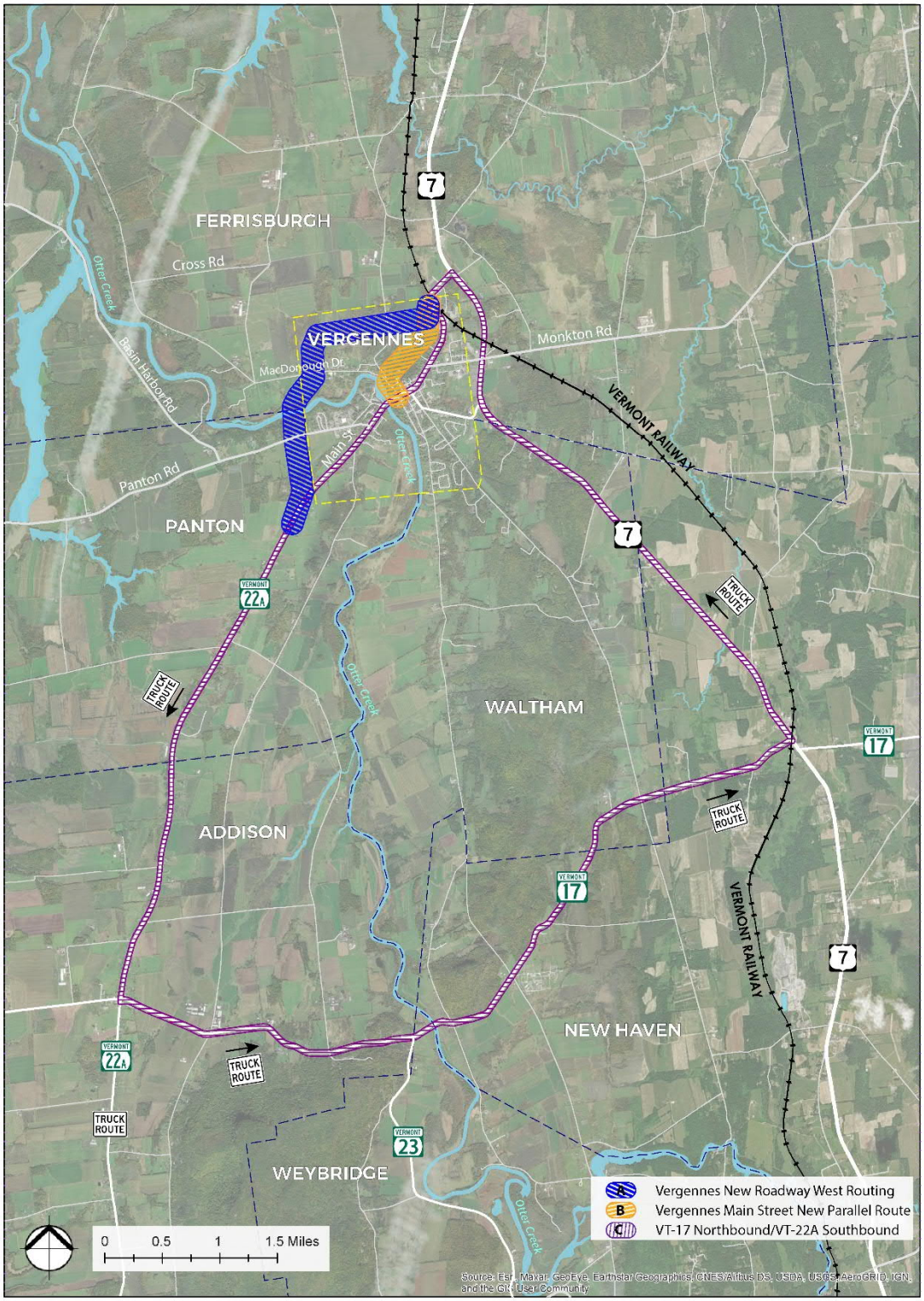


Table 5-2 Screening Matrix – Quality of Life

Screening Criteria	Systemwide	VT-17 / Route 7	VT-22A Corridor Improvements	Purple Route – VT-17 Northbound/VT-22A Southbound	Red Route – Panton-Ferrisburgh New Roadway (West Routing Option 1)	Turquoise Route – Vergennes New Roadway (West Routing Option 2)	Pink Route – Vergennes New Roadway (West Routing Option 3)	Blue Route – Vergennes-Panton New Roadway (West Routing Option 4)	Green Route – Panton-Vergennes-Waltham New Roadway (Southeast Routing)	Orange Route – Vergennes Main Street New Parallel Route	Rail Mode Options	Water Mode Options	Smart Freight Solutions	No Build
Reduces truck noise, dust, and emissions in downtown Vergennes	++	++	--	+	++	++	++	++	++	+	-	-	+	--
Avoids potential impacts to natural and water resources	O	O	O	+	--	--	--	--	-	O	O	--	+	O
Maintains and/or supports community character of downtown Vergennes	+	+	O	+	+	O	O	O	+	-	+	O	O	-

Table 5-3 Screening Matrix – Equity

Screening Criteria	Systemwide	VT-17 / Route 7	VT-22A Corridor Improvements	Purple Route – VT-17 Northbound/VT-22A Southbound	Red Route – Panton-Ferrisburgh New Roadway (West Routing Option 1)	Turquoise Route – Vergennes New Roadway (West Routing Option 2)	Pink Route – Vergennes New Roadway (West Routing Option 3)	Blue Route – Vergennes-Panton New Roadway (West Routing Option 4)	Green Route – Panton-Vergennes-Waltham New Roadway (Southeast Routing)	Orange Route – Vergennes Main Street New Parallel Route	Rail Mode Options	Water Mode Options	Smart Freight Solutions	No Build
Balances distribution of transportation resource benefits	0	-	0	+	-	0	0	0	-	++	+	+	+	0
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	-	--	0	0	--	--	--	0	-	0	0	0	0	0

Table 5-4 Screening Matrix – Mobility and Access

Screening Criteria	Systemwide	VT-17 / Route 7	VT-22A Corridor Improvements	Purple Route – VT-17 Northbound/VT-22A Southbound	Red Route – Panton-Ferrisburgh New Roadway (West Routing Option 1)	Turquoise Route – Vergennes New Roadway (West Routing Option 2)	Pink Route – Vergennes New Roadway (West Routing Option 3)	Blue Route – Vergennes-Panton New Roadway (West Routing Option 4)	Green Route – Panton-Vergennes-Waltham New Roadway (Southeast Routing)	Orange Route – Vergennes Main Street New Parallel Route	Rail Mode Options	Water Mode Options	Smart Freight Solutions	No Build
Maintains freight mobility throughout the region	--	-	-	o	o	+	+	+	-	+	-	--	o	o
Improves access to destinations in downtown Vergennes for all modes of transportation	+	+	o	+	+	+	+	+	+	+	o	o	o	--

Table 5-5 Screening Matrix – Economic Vitality

Screening Criteria	Systemwide	VT-17 / Route 7	VT-22A Corridor Improvements	Purple Route – VT-17 Northbound/VT-22A Southbound	Red Route – Panton-Ferrisburgh New Roadway (West Routing Option 1)	Turquoise Route – Vergennes New Roadway (West Routing Option 2)	Pink Route – Vergennes New Roadway (West Routing Option 3)	Blue Route – Vergennes-Panton New Roadway (West Routing Option 4)	Green Route – Panton-Vergennes-Waltham New Roadway (Southeast Routing)	Orange Route – Vergennes Main Street New Parallel Route	Rail Mode Options	Water Mode Options	Smart Freight Solutions	No Build
Promotes economic vitality of Downtown Vergennes	+	0	+	+	0	+	+	+	0	+	-	-	0	0
Promotes regional economic vitality	+	0	-	0	0	+	+	+	0	+	0	0	0	0

Table 5-6 Screening Matrix – Safety, Circulation, Resilience

Screening Criteria	Systemwide	VT-17 / Route 7	VT-22A Corridor Improvements	Purple Route – VT-17 Northbound/VT-22A Southbound	Red Route – Panton-Ferrisburgh New Roadway (West Routing Option 1)	Turquoise Route – Vergennes New Roadway (West Routing Option 2)	Pink Route – Vergennes New Roadway (West Routing Option 3)	Blue Route – Vergennes-Panton New Roadway (West Routing Option 4)	Green Route – Panton-Vergennes-Waltham New Roadway (Southeast Routing)	Orange Route – Vergennes Main Street New Parallel Route	Rail Mode Options	Water Mode Options	Smart Freight Solutions	No Build
Creates redundancies to improve resilience of road network	0	0	0	0	++	++	++	++	++	0	0	0	0	0

Screening Criteria	Systemwide	VT-17 / Route 7	VT-22A Corridor Improvements	Purple Route – VT-17 Northbound/VT-22A Southbound	Red Route – Panton-Ferrisburgh New Roadway (West Routing Option 1)	Turquoise Route – Vergennes New Roadway (West Routing Option 2)	Pink Route – Vergennes New Roadway (West Routing Option 3)	Blue Route – Vergennes-Panton New Roadway (West Routing Option 4)	Green Route – Panton-Vergennes-Waltham New Roadway (Southeast Routing)	Orange Route – Vergennes Main Street New Parallel Route	Rail Mode Options	Water Mode Options	Smart Freight Solutions	No Build
Improves motorized circulation through and within the region	o	+	o	o	+	+	+	+	+	o	o	o	+	-
Improves active transportation (bicycle, pedestrian, transit) through and within the region	o	o	o	o	+	+	+	+	o	o	o	o	o	o
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	+	+	o	+	+	+	+	+	+	+	o	o	+	-

Table 5-7 Screening Matrix – Land Use

Screening Criteria	Systemwide	VT-17 / Route 7	VT-22A Corridor Improvements	Purple Route – VT-17 Northbound/VT-22A Southbound	Red Route – Panton-Ferrisburgh New Roadway (West Routing Option 1)	Turquoise Route – Vergennes New Roadway (West Routing Option 2)	Pink Route – Vergennes New Roadway (West Routing Option 3)	Blue Route – Vergennes-Panton New Roadway (West Routing Option 4)	Green Route – Panton-Vergennes-Waltham New Roadway (Southeast Routing)	Orange Route – Vergennes Main Street New Parallel Route	Rail Mode Options	Water Mode Options	Smart Freight Solutions	No Build
Consistent with existing regional land uses	0	-	0	-	--	--	--	--	--	-	+	-	0	0
Aligns with future and projected regional land uses and statewide goals	+	0	0	0	-	0	0	0	-	+	0	-	0	0

Systemwide

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**Yes**	
Reduces truck noise and emissions in downtown Vergennes	**++**	Combination of alternative routes and supplemental initiatives (enforcement, legislation, incentivization) could reduce the number of trucks and associated noise and emissions in downtown.
Avoids potential impacts to natural and water resources	**o**	Alternative primarily utilizes existing roadways, limiting the number of potential impacts to environmental resources but would still require some infrastructure improvements.
Maintains and/or supports community character of downtown Vergennes	**+**	Reliance on existing alternative roadways/highway corridors would avoid any adverse community character impacts associated with new roads or local road alternatives.
Balances distribution of transportation resource benefits	**o**	Downtown Vergennes would see the most immediate impacts. There could be increased truck traffic and in other communities, but the alternative provides multiple alternative routes to divert truck traffic to balance the potential impact.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**-**	Reroutes truck traffic from Vergennes to surrounding communities.
Maintains freight mobility throughout the region	**--**	While the alternative would offer alternate routes to maintain freight operations, trucking industry representatives have expressed concern with time and distance increases for freight trips. No designated alternative route so investment in necessary improvements may be widespread.
Improves access to destinations in downtown Vergennes for all modes of transportation	**+**	Expected decrease/elimination of truck traffic is expected to reduce congestion and safety concerns in Downtown, thus improving overall access.
Promotes economic vitality of Downtown Vergennes	**+**	Reduction in truck trips through downtown could support increased economic activity by creating a more welcoming environment for visitors and residents.
Promotes regional economic vitality	**+**	Improvements to major highway corridors may increase the desirability of Addison county as a driver of economic activity, particularly for travelers between Burlington and points south.
Creates redundancies to improve resilience of road network	**o**	Some resiliency of the road network is realized through improvements to the existing roadways Does not create a new bridge over Otter Creek.
Improves motorized circulation through and within the region	**o**	Distributes truck traffic throughout several corridors.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**o**	Few expected impacts upon non-motorized regional transportation.

SCREENING CRITERIA	RATING	
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	+	Distributes truck traffic throughout several corridors. Few expected impacts upon non-motorized regional transportation.
Consistent with existing regional land uses	o	Alternative will primarily align with existing highway corridors, and as such is not expected to impact existing land uses.
Aligns with future and projected regional land uses and statewide goals	+	Understanding the alternative is flexible but would expect some positive gain if trucks are shifted out of downtown Vergennes. • Alternative can accommodate planned highway projects. • Alternative is not expected to adversely affect planned land use planning and land use goals. • Alternative could potentially provide improved access to potential future development opportunities.
Total	**5**	

VT-17 Northbound / VT 22A Southbound

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**Yes**	
Reduces truck noise and emissions in downtown Vergennes	**++**	Would prohibit through trucks on Route 22A, greatly reducing emissions and noise in downtown.
Avoids potential impacts to natural and water resources	**o**	Would rely on existing roadway infrastructure, limiting potential impacts on environmental resources. Potential improvements may encroach on environmental resources; however, impacts are unknown at this time.
Maintains and/or supports community character of downtown Vergennes	**+**	Removal of trucks through downtown Vergennes would align with the character of the surrounding community, reducing the number of large trucks in the downtown corridor.
Balances distribution of transportation resource benefits	**-**	Downtown Vergennes would see the most immediate impacts. Would result in increased truck traffic and potentially adverse effects in other communities, primarily Ferrisburgh and Addison. Potential roadway improvements may, however, benefit transportation resources in these communities.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**--**	Increased truck traffic would result in impacts to other communities, primarily in Ferrisburgh, New Haven, and Addison.
Maintains freight mobility throughout the region	**-**	Would provide a viable alternative for truck traffic that would allow freight movement through the region. Drivers and advocates have expressed concern over added time and distance utilizing this route under current conditions, however improvements could align travel times with existing times on Route 22A. Would require roadway modifications and realignment to support the necessary level of truck traffic, including a new intersection with U.S. Route 7 with associated intersection vertical and horizontal alignment improvements
Improves access to destinations in downtown Vergennes for all modes of transportation	**+**	Elimination of truck traffic in downtown Vergennes would improve access for all other transportation types.
Promotes economic vitality of Downtown Vergennes	**o**	Reduction in truck trips through downtown could support increased economic activity by creating a more welcoming environment for visitors and residents.
Promotes regional economic vitality	**o**	Currently unknown if diversion of trucks to other roadways would improve/impact economic vitality.
Creates redundancies to improve resilience of road network	**o**	Improvements would likely not change the redundancy of the road network. Improves the resiliency of existing Route 17. Diverting truck traffic to this route increases emergency vehicle access to downtown Vergennes

SCREENING CRITERIA	RATING	
Improves motorized circulation through and within the region	+	Roadway improvements would benefit all motorized transportation types (including slower moving vehicles) on Route 17 and would aim to reduce congestion and make the roadway safe and efficient for all trip types through the regional corridor.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	o	Would do little to support or improve non-motorized circulation.
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	+	Elimination of truck traffic through downtown would eliminate potential truck related traffic incidents for both motorists and pedestrians.
Consistent with existing regional land uses	-	Utilization of/improvements to the existing roadway would align with existing land uses.
Aligns with future and projected regional land uses and statewide goals	o	Improvements could support commercial development plans in appropriate areas. Corridor passes through agricultural corridors so expansion of the roadway may not align with future land use goals within these areas and limit economic development opportunities.
Total	**1**	

VT-22A Corridor Improvements

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**No**	
Reduces truck noise and emissions in downtown Vergennes	**--**	Maintains or potentially encourages additional truck traffic, resulting in sustained emissions and noise associated with freight traffic.
Avoids potential impacts to natural and water resources	**o**	Primarily includes infrastructure improvements to existing roadway right-of-way, limiting impacts to environmental resources.
Maintains and/or supports community character of downtown Vergennes	**o**	Improvements would be limited and likely not result in a change to downtown Vergennes community character
Balances distribution of transportation resource benefits	**o**	Truck traffic would still be concentrated on Route 22A.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**o**	Does not reroute trucks so there are relatively limited impacts to communities including environmental justice populations.
Maintains freight mobility throughout the region	**-**	Maintains and improves efficiency of the preferred truck route in the region. Existing grade issues on Route 22A will continue to pose challenges to freight mobility.
Improves access to destinations in downtown Vergennes for all modes of transportation	**o**	Improvements to other modes would be minimal.
Promotes economic vitality of Downtown Vergennes	**+**	Maintains downtown Vergennes as a commercial center. Maintains or potentially encourages additional traffic encouraging travelers to visit downtown as an economic destination.
Promotes regional economic vitality	**-**	Funnels additional traffic through Vergennes, highlighting the corridor as a commercial center, and potentially encouraging additional economic activity that may have been seen elsewhere.
Creates redundancies to improve resilience of road network	**o**	Does not create any additional redundancies though it would maintain Route 22A as the primary north-south local corridor. Does not create any new Otter Creek crossings, relying on the existing, constrained, crossing.
Improves motorized circulation through and within the region	**o**	Reduction in congestion and conflict points would be minimal.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**o**	Improvements are expected to include streetscape improvements and pedestrian infrastructure would be minimal.
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	**o**	Safety improvements would be limited.

SCREENING CRITERIA	RATING	
Consistent with existing regional land uses	**o**	Improvements are constrained to existing roadway right-of-way, minimizing impacts on existing land uses. Improvements may support improves access to existing businesses.
Aligns with future and projected regional land uses and statewide goals	**o**	Improvements are constrained to existing roadway right-of-way, minimizing impacts on existing land uses.
Total	**-3**	

Purple Route - VT-17 Northbound / VT 22A Southbound

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**Yes**	
Reduces truck noise and emissions in downtown Vergennes	**+**	Limits truck traffic to one direction and thus reduce truck counts by approximately half. While existing trucks would still contribute emissions and noise through the Route 22A corridor it would be at a reduced level.
Avoids potential impacts to natural and water resources	**+**	Utilization of existing roadways is expected to limit impacts to environmental resources.
Maintains and/or supports community character of downtown Vergennes	**+**	Truck traffic would be reduced and likely support the desired downtown character.
Balances distribution of transportation resource benefits	**+**	No single municipality/community reap the benefits while other taken on all of the negative impacts. Benefits from associated improvements are spread to two regional corridors, benefiting several communities.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**o**	Utilization of Route 22A and Route 17 corridors avoids disproportionate burden by spreading impacts and benefits between different communities.
Maintains freight mobility throughout the region	**o**	Removing northbound freight traffic on Route 22A would mitigate some of the mobility constraints stemming from the steep grade change in southern Vergennes, though the slope will pose a challenge southbound. Split would sufficiently maintain freight options while only resulting in a moderate trip time/distance increase in the northbound direction.
Improves access to destinations in downtown Vergennes for all modes of transportation	**+**	Removal of northbound truck traffic may decrease congestion levels for those accessing residential communities or commercial institutions in downtown Vergennes, particularly when traveling from the south.
Promotes economic vitality of Downtown Vergennes	**+**	Expected to maintain economic activity in downtown.
Promotes regional economic vitality	**o**	While some economic activity could be encouraged, the areas surrounding Route 17 are currently more rural and do not want the growth.
Creates redundancies to improve resilience of road network	**o**	Would not create any additional crossings on Otter Creek but would improve the resiliency of existing Route 17.
Improves motorized circulation through and within the region	**o**	Reduction in trucks on Route 22A northbound will be absorbed by Route 17. While this will increase truck activity on Route 17, mobility is expected, overall, to improve, by dispersing impacts to several corridors, generally normalizing congestion levels for these two roadways.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**o**	Does not create any additional crossings on Otter Creek but would improve the accommodation of Route 17 through road widening.

SCREENING CRITERIA	RATING	
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	+	Reduction in trucks on Route 22A northbound will be absorbed by Route 17.
Consistent with existing regional land uses	-	Communities surrounding Route 17 are rural and are not encouraging growth.
Aligns with future and projected regional land uses and statewide goals	o	Corridor passes through agricultural corridors so modification of the roadway may not align with future land use goals within these areas.
Total	**6**	

Red Route - Panton-Ferrisburgh New Roadway (West Routing Option 1)

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	Yes	
Reduces truck noise and emissions in downtown Vergennes	++	Diverts trucks from downtown to a newly constructed roadway.
Avoids potential impacts to natural and water resources	--	Potential to impact known wetland resources, particularly in proximity to Otter Creek and the Panton-Ferrisburgh town line. Runs through existing agricultural land. Impacts to locations with hydric soils, particularly in Ferrisburgh north of Sand Road. Potential impacts to rare and protected species habitat in Ferrisburgh.
Maintains and/or supports community character of downtown Vergennes	+	Shifts truck trips out of Vergennes which will likely support the desired downtown character.
Balances distribution of transportation resource benefits	-	Vergennes would see most of the benefit, with reduced congestion, pollution, and traffic, while trucks (and associated negatives) would be pushed elsewhere, particularly Panton.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	--	Creates disproportionate burden of truck traffic into neighboring Panton and Ferrisburgh.
Maintains freight mobility throughout the region	o	A new roadway specifically designated for truck use would help maintain freight mobility. Creates longer route than currently exists, adding mileage and time; however, not as significant as other concepts.
Improves access to destinations in downtown Vergennes for all modes of transportation	+	Would likely reduce the number of trucks in downtown, thus subsequently reducing congestion and increasing accessibility.
Promotes economic vitality of Downtown Vergennes	o	A new roadway further from downtown would not improve access to nor support existing economic activity.
Promotes regional economic vitality	o	While some economic activity could be encouraged, the areas surrounding the route are more rural and agricultural lands.
Creates redundancies to improve resilience of road network	++	Would create a new Otter Creek crossing.
Improves motorized circulation through and within the region	+	Provides an additional option for traffic in the region, reducing congestion in downtown Vergennes, particularly for through travel and truck trips. Could include reconstruction/improvements to existing roadways which would benefit all mobility options.

SCREENING CRITERIA	RATING	
Improves active transportation (bicycle, pedestrian, transit) through and within the region	+	Potential to offer bike/pedestrian improvements, but none specifically noted.
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	+	Overall reduction in trucks through downtown would improve safety for all users, improving sightlines and minimizing conflict points.
Consistent with existing regional land uses	--	Likely to impact existing land uses along the new roadway.
Aligns with future and projected regional land uses and statewide goals	-	Potential development is inconsistent with local land use goals in Panton where there is no desire for land use changes.
Total	**1**	

Turquoise Route - Vergennes New Roadway (West Routing Option 2)

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	Yes	
Reduces truck noise and emissions in downtown Vergennes	++	Diverts trucks from downtown to a newly constructed roadway.
Avoids potential impacts to natural and water resources	--	Potential impacts to wetland resources and buffer areas. Presence of hydric soils and significant natural community.
Maintains and/or supports community character of downtown Vergennes	o	Shifting truck trips out of Vergennes is positive for downtown Vergennes but is balanced by impacts to surrounding communities, including farmlands, Prospect Cemetery, and Otter Creek Park community Some positive impacts to UTC Aerospace facility.
Balances distribution of transportation resource benefits	o	Slight improvement to transportation resources but primarily contained within Vergennes. Minimal impacts or benefits to communities outside Vergennes.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	--	Impacts to mobile home community.
Maintains freight mobility throughout the region	+	New roadway designated for truck use would help maintain freight mobility. Fewer time/distance impacts than other concepts.
Improves access to destinations in downtown Vergennes for all modes of transportation	+	Reduces the number of trucks in downtown, thus subsequently reducing congestion and increasing accessibility.
Promotes economic vitality of Downtown Vergennes	+	Reduction in truck trips through downtown could support increased economic activity by creating a more welcoming environment for visitors and residents.
Promotes regional economic vitality	+	Creation of a new roadway closer to downtown has potential to improve access to and support increased economic vitality.
Creates redundancies to improve resilience of road network	++	A new Otter Creek crossing substantially increases redundancy of regional network.
Improves motorized circulation through and within the region	+	Provides an additional option for traffic in the region, reducing congestion elsewhere, particularly for through trips. • Suitable for all through vehicles. • Potential intersection improvements for Comfort Hill Street, MacDonough Drive, Panton Road, and Route 22A. • New railroad underpass.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	+	Potential to offer bike/pedestrian improvements, but none specifically noted.

SCREENING CRITERIA	RATING	
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	+	Overall reduction in trucks through downtown improves safety for all users, improving sightlines and minimizing conflict points.
Consistent with existing regional land uses	--	Likely impacts to existing land uses. Potential residential or farm related building removal. May impact commercial businesses on Panton Road and existing farm(s) on Route 22A.
Aligns with future and projected regional land uses and statewide goals	o	Desired future development goals of economic development are balanced by a shift away from current agricultural uses.
Total	5	

Pink Route - Vergennes New Roadway (West Routing Option 3)

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**Yes**	
Reduces truck noise and emissions in downtown Vergennes	**++**	Diverts trucks from downtown to a newly constructed roadway.
Avoids potential impacts to natural and water resources	**--**	Potential impacts to wetland resources and buffer areas. Presence of hydric soils and significant natural community.
Maintains and/or supports community character of downtown Vergennes	**o**	Shifts truck trips out of downtown Vergennes May impact remainder of Vergennes
Balances distribution of transportation resource benefits	**o**	Slight improvement to transportation resources but primarily contained within Vergennes. Minimal impacts or benefits to communities outside Vergennes.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**--**	This option has potential impacts on the Otter Creek Mobile Home Community and adjacent residences.
Maintains freight mobility throughout the region	**+**	A new roadway specifically designated for truck use would help maintain freight mobility. Fewer time/distance impacts than other concepts.
Improves access to destinations in downtown Vergennes for all modes of transportation	**+**	New roadway likely reduces the number of trucks in downtown, thus subsequently reducing congestion and increasing accessibility.
Promotes economic vitality of Downtown Vergennes	**+**	Reduction in truck trips through downtown supports increased economic activity by creating a more welcoming environment for visitors and residents.
Promotes regional economic vitality	**+**	Creation of a new roadway closer to downtown has potential to improve access to and support increased economic vitality.
Creates redundancies to improve resilience of road network	**++**	A new Otter Creek crossing substantially increases redundancy of regional network.
Improves motorized circulation through and within the region	**+**	A new roadway provides an additional option for traffic in the region, reducing congestion elsewhere, particularly for through trips. Intersection improvements for Comfort Hill Street, MacDonough Drive, Panton Road, and Route 22A. New railroad underpass.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**+**	Potentially offers bike/pedestrian improvements, but none specifically noted.

SCREENING CRITERIA	RATING	
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	+	Overall reduction in trucks through downtown improves safety for all users, improving sightlines and minimizing conflict points.
Consistent with existing regional land uses	--	Likely creates displacement and negative impacts to existing land use along the new roadway. Removal of two homes and potential impacts on several others. Impacts to existing farms on Route 22A.
Aligns with future and projected regional land uses and statewide goals	o	Future development goals of economic development are balanced with a shift from current agricultural uses.
Total	**5**	

Blue Route - Vergennes-Panton New Roadway (West Routing Option 4)

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**Yes**	
Reduces truck noise and emissions in downtown Vergennes	**++**	Diverts trucks from downtown to a newly constructed roadway.
Avoids potential impacts to natural and water resources	**--**	Potential impacts to wetland resources and buffer areas. Presence of hydric soils and significant natural community.
Maintains and/or supports community character of downtown Vergennes	**o**	Shifting truck trips out of Vergennes is positive for downtown but balanced by impacts to remainder of Vergennes.
Balances distribution of transportation resource benefits	**o**	Slight improvement to transportation resources but primarily contained within Vergennes Minimal impacts or benefits to communities outside Vergennes
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**o**	Moderate impacts to existing residences. Compared to other western routings, does not impact known disadvantaged communities.
Maintains freight mobility throughout the region	**+**	A new roadway specifically designated for truck use would help maintain freight mobility. Fewer time/distance impacts than other concepts.
Improves access to destinations in downtown Vergennes for all modes of transportation	**+**	The new roadway likely reduces the number of trucks in downtown, thus subsequently reducing congestion and increasing accessibility.
Promotes economic vitality of Downtown Vergennes	**+**	Reduction in truck trips through downtown support increased economic activity by creating a more welcoming environment for visitors and residents.
Promotes regional economic vitality	**+**	Creation of a new roadway closer to downtown has potential to improve access to and support increased economic vitality.
Creates redundancies to improve resilience of road network	**++**	A new Otter Creek crossing substantially increases redundancy of the regional network.
Improves motorized circulation through and within the region	**+**	A new roadway provides an additional option for traffic in the region, reducing congestion elsewhere, particularly for through trips. Suitable for all through vehicles. Intersection improvements for Comfort Hill Street, MacDonough Drive, Panton Road, and Route 22A. Potential new railroad underpass.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**+**	Potentially offers bike/pedestrian improvements, but none specifically noted.

SCREENING CRITERIA	RATING	
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	+	Overall reduction in trucks through downtown would improve safety for all users, improving sightlines and minimizing conflict points.
Consistent with existing regional land uses	--	Existing land uses are almost entirely Rural/Agriculture, a new roadway does not support the desired land use.
Aligns with future and projected regional land uses and statewide goals	o	Future development goals of economic development are balanced with a shift from current agricultural uses.
Total	7	

Green Route - Panton-Vergennes-Waltham New Roadway (Southeast Routing)

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**Yes**	
Reduces truck noise and emissions in downtown Vergennes	**++**	Diverts trucks from of downtown to a newly constructed roadway.
Avoids potential impacts to natural and water resources	**--**	Potential impacts to wetland resources and buffer areas Potential impacts to migratory animal populations. Presence of hydric soils which may make construction difficult.
Maintains and/or supports community character of downtown Vergennes	**+**	Shifting truck trips out of downtown Vergennes improves community character and have minimal impacts to the remainder of Vergennes.
Balances distribution of transportation resource benefits	**-**	Vergennes gains most of the benefit; reduced congestion, pollution, and traffic. Pushes trucks and associated impacts into neighboring Panton and Waltham.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**-**	Diverts trucks into neighboring Panton and Waltham, thus likely disproportionately placing the existing burdens faced by Vergennes onto these populations.
Maintains freight mobility throughout the region	**-**	A new roadway specifically designated for truck use helps maintain freight mobility. The route likely has the largest time/distance impacts compared to other concepts and the existing route.
Improves access to destinations in downtown Vergennes for all modes of transportation	**+**	Reduction in the number of trucks in downtown, is expected to reduce congestion and increasing accessibility.
Promotes economic vitality of Downtown Vergennes	o	A new roadway further from downtown would not improve access to or support existing economic activity.
Promotes regional economic vitality	o	While some economic activity could be encouraged, the areas surrounding the route are more rural agricultural lands.
Creates redundancies to improve resilience of road network	**++**	A new Otter Creek crossing substantially increases redundancy of regional network.
Improves motorized circulation through and within the region	**+**	A new roadway provides an additional option for traffic in the region, reducing congestion elsewhere, particularly for through trips. Improvements to the intersection with U.S. Route 7.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**o**	No anticipated benefits to non-motorized transportation options.

SCREENING CRITERIA	RATING	
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	+	Overall reduction in trucks through downtown improves safety for all users, improving sightlines and minimizing conflict points.
Consistent with existing regional land uses	--	Existing land uses are almost entirely Rural/Agriculture, a new roadway does not align with these uses. Conflicts with existing residential areas.
Aligns with future and projected regional land uses and statewide goals	-	A new road is not consistent with anticipated future land use goals. Future land use for this area is primarily Rural/Agriculture and/or Residential.
Total	**0**	

Orange Route - Vergennes Main Street New Parallel Route

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**Yes**	
Reduces truck noise and emissions in downtown Vergennes	**+**	Reduces truck noise but trucks still need to travel in parts of downtown Vergennes.
Avoids potential impacts to natural and water resources	**-**	Potential adverse effects to wetland buffer depending on final routing.
Maintains and/or supports community character of downtown Vergennes	**-**	The new road portion impacts residential communities by introducing new truck traffic in an area where there currently in none. Impacts to existing farmland and rural character.
Balances distribution of transportation resource benefits	**++**	Most benefits and potential impacts would be within Vergennes; does not negatively impact neighboring areas.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**o**	A roadway closer to Vergennes would have less of an impact on surrounding communities.
Maintains freight mobility throughout the region	**o**	Provides an alternative to Route 22A for trucks. Could result in new difficult turning movements.
Improves access to destinations in downtown Vergennes for all modes of transportation	**+**	The new roadway likely reduces the number of trucks in downtown, thus reducing congestion and increasing accessibility.
Promotes economic vitality of Downtown Vergennes	**+**	Reduction in truck trips through downtown supports increased economic activity by creating a more welcoming environment for visitors and residents.
Promotes regional economic vitality	**+**	Creation of a new roadway in close proximity to downtown would improve access to and support increased economic vitality.
Creates redundancies to improve resilience of road network	**o**	No new Otter Creek Crossing. Bringing trucks to a new road specifically designed for truck travel may improve the resiliency of the road network on other roads, particularly Route 22A.
Improves motorized circulation through and within the region	**o**	Little opportunity for regional circulation given the roadway would primarily serve local destinations and communities. Most personal vehicles would maintain existing routing on Route 22A.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**o**	Would likely not provide benefits to non-motorized transportation options.
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	**+**	Overall reduction in trucks through downtown would improve safety for all users, improving sightlines and minimizing conflict points.

SCREENING CRITERIA	RATING	
Consistent with existing regional land uses	-	Inconsistent with existing farmland and open space land uses.
Aligns with future and projected regional land uses and statewide goals	+	Creation of a new roadway in close proximity would provide an expanded downtown, improving access to and supporting increased economic vitality.
Total	**6**	

Rail Mode Options

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**No**	
Reduces truck noise and emissions in downtown Vergennes	**-**	Reduction in the need for trucks to transport freight goods reduces the overall number of trucks utilizing Route 22A through downtown Vergennes, reducing overall noise and emissions.
Avoids potential impacts to natural and water resources	**o**	Improvements within the rail right-of-way have minimal potential to affect environmental resources.
Maintains and/or supports community character of downtown Vergennes	**+**	Some necessary improvements or expansions may impact environmental resources, but the extent is currently unknown.
Balances distribution of transportation resource benefits	**+**	Utilization of existing rail right-of-way is expected to minimize impacts to community character.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**o**	Rail improvements are along existing rail right-of-way and do not disproportionally impact communities.
Maintains freight mobility throughout the region	**-**	Freight industry experts have expressed concern that rail alone will not be sufficient to move freight goods, particularly for last mile delivery. Would still require some level of truck activity.
Improves access to destinations in downtown Vergennes for all modes of transportation	**o**	May support railway improvements that could benefit regional rail travel. Little potential to support for/or alignment with passenger rail opportunities.
Promotes economic vitality of Downtown Vergennes	**-**	Some benefits through moderate reduction of overall truck freight traffic, however, some level of truck activity is expected to remain.
Promotes regional economic vitality	**o**	Rail improvements may impact only long-haul trips and are unlikely to have a significant positive impact on regional economy.
Creates redundancies to improve resilience of road network	**o**	Does not address resiliency or route redundancies on the local/regional road network but would not make worse.
Improves motorized circulation through and within the region	**o**	Does not address circulation issues of regional motorized travel, including congestion or travel time savings.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**o**	Does not directly address safety concerns. Supplemental benefits stemming from reduction in through trucks.
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	**o**	Does not directly address safety concerns. Supplemental benefits stemming from reduction in through trucks.
Consistent with existing regional land uses	**+**	Utilizes primarily existing rail right-of-way, limiting impacts on existing land uses.

Aligns with future and projected regional land uses and statewide goals	**0**	Utilizes primarily existing rail right-of-way, limiting impacts on projected land uses. Limited opportunity to support future land uses, particularly development goals.
Total	**0**	

Water Mode Options

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**No**	
Reduces truck noise and emissions in downtown Vergennes	**-**	Reduction in the need for trucks to transport freight goods reduces the overall number of trucks utilizing Route 22A through downtown Vergennes, reducing overall noise and emissions.
Avoids potential impacts to natural and water resources	**--**	Increased freight activity, primarily on Lake Champlain, has adverse environmental impact stemming from barge pollution/emissions.
Maintains and/or supports community character of downtown Vergennes	**o**	Utilization of water resources minimizes impacts to community character.
Balances distribution of transportation resource benefits	**+**	Benefits stemming from the reduced reliance on trucks will benefit traffic operations throughout the region.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**o**	Utilization of existing water resources minimizes impacts to Environmental Justice and Historically Disadvantaged Communities.
Maintains freight mobility throughout the region	**--**	Freight industry experts have expressed concern that barge/water mode alone will not be sufficient to move freight goods, particularly for last mile delivery. Still requires some level of truck activity. Seasonal limitations on Lake Champlain limit the capacity of the freight network
Improves access to destinations in downtown Vergennes for all modes of transportation	**o**	Presumably minimal reduction in overall trucks in downtown thus small impact on accessibility.
Promotes economic vitality of Downtown Vergennes	**-**	Some benefits through moderate reduction of overall truck freight traffic, however, some level of truck activity is expected to remain. Unclear how increased water trips may impact truck trips.
Promotes regional economic vitality	**o**	Little direct impact to regional economic vitality.
Creates redundancies to improve resilience of road network	**o**	Does not address resiliency or route redundancies on the local/regional road network.
Improves motorized circulation through and within the region	**o**	Does not address circulation issues of regional motorized travel, including congestion or travel time savings.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**o**	Does not address circulation issues of regional non-motorized travel, including improved/implemented infrastructure.
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	**o**	Does not directly address safety concerns. Supplemental benefits stemming from reduction in through trucks.
Consistent with existing regional land uses	**-**	Increased industrial/commercial traffic on the lake negatively impacts existing waterfront uses.

SCREENING CRITERIA	RATING	
Aligns with future and projected regional land uses and statewide goals	-	Increased commercial traffic on Lake Champlain is not part of any state-wide goal.
Total	**-7**	

Smart Freight Solutions

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**Yes**	
Reduces truck noise and emissions in downtown Vergennes	**+**	Transition to zero emission vehicles would reduce freight related emissions. Large trucks could still contribute to noise and vibration impacts, although electric vehicle technology may limit the extent of these impacts.
Avoids potential impacts to natural and water resources	**+**	Relies upon existing infrastructure, so no adverse impacts to environmental resources are expected.
Maintains and/or supports community character of downtown Vergennes	**o**	Low potential to have any major impact on community character.
Balances distribution of transportation resource benefits	**+**	Smart Freight Technology interventions can be applied systemwide, so widespread benefits could be expected.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**o**	No known impacts to vulnerable populations.
Maintains freight mobility throughout the region	**o**	Does not limit freight mobility in the region and could improve efficiency.
Improves access to destinations in downtown Vergennes for all modes of transportation	**o**	Is not expected to impact access to downtown destinations.
Promotes economic vitality of Downtown Vergennes	**o**	No known impacts to local economic vitality.
Promotes regional economic vitality	**o**	No known impacts to regional economic vitality.
Creates redundancies to improve resilience of road network	**o**	Does not create any redundancies or roadway resiliency impacts.
Improves motorized circulation through and within the region	**+**	Autonomous vehicle implementation has potential to improve traffic flow and increase efficiency of truck routes, improving conditions for other users sharing the roadway.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**o**	Freight traffic is expected to continue to increase, and impacts of Smart Freight Solutions alone may be limited.
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	**+**	ITS and other Smart Solutions can be used to improve motorized safety. Not expected to impact non-motorized transportation circulation.
Consistent with existing regional land uses	**o**	CAV could implement technology that eliminates user error, reducing traffic incidents and minimizing conflicts between trucks and vulnerable users (i.e., pedestrians and bicyclists).

SCREENING CRITERIA	RATING	
Aligns with future and projected regional land uses and statewide goals	**0**	No impacts to existing land uses.
Total	**5**	

No Build

SCREENING CRITERIA	RATING	
Does the concept meet the Purpose & Need of the Vergennes PEL Study?	**No**	
Reduces truck noise and emissions in downtown Vergennes	**--**	Maintains truck traffic, so does not reduce noise and emissions in downtown. Increased reliance on truck freight activity may exacerbate existing issues.
Avoids potential impacts to natural and water resources	**o**	Planned/programmed projects may consider environmentally sensitive areas prior to implementation on a project-by-project basis.
Maintains and/or supports community character of downtown Vergennes	**-**	Major ongoing concern of the status quo is detriments to the community character of Downtown
Balances distribution of transportation resource benefits	**o**	Planned/programmed projects are likely be geographically diverse based upon need and funding. Minimal implementation of transportation resource benefits, so distribution would be difficult to assess/predict.
Avoids impacts to surrounding communities, including disproportionate impacts to environmental justice communities	**o**	Planned/programmed projects would consider Historically Disadvantaged Communities or Environmental Justice populations prior to implementation on a project-by-project basis.
Maintains freight mobility throughout the region	**o**	General assumption that existing conditions/no build are not sufficient to handle the expected growth and increased prevalence of freight traffic in the region.
Improves access to destinations in downtown Vergennes for all modes of transportation	**--**	Existing traffic congestion and associated access concerns may limit local access to commercial destinations. Truck traffic may exacerbate existing parking concerns.
Promotes economic vitality of Downtown Vergennes	**o**	No intended benefits for local economic vitality.
Promotes regional economic vitality	**o**	No intended benefits for regional economic vitality.
Creates redundancies to improve resilience of road network	**o**	No expected improvements to roadway resiliency or create system redundancy. No new Otter Creek crossing.
Improves motorized circulation through and within the region	**-**	Continues to constrain circulation, particularly on the Route 22A corridor.
Improves active transportation (bicycle, pedestrian, transit) through and within the region	**o**	Existing sharrows are maintained, yet no pedestrian or bicycle network improvements are expected in the corridor.

SCREENING CRITERIA	RATING	
Improves motorized and non-motorized safety on Vermont Route 22A through downtown Vergennes	-	Maintaining existing freight traffic is likely be a detriment to non-motorized transportation safety. Known conflict points between freight traffic and bike/ped users are not addressed. Known truck-vehicle traffic incident hot spots in the region are not addressed.
Consistent with existing regional land uses	o	Largely maintains the status quo of regional land use patterns.
Aligns with future and projected regional land uses and statewide goals	o	Little potential to prevent or facilitate future state-wide goals.
Total	**-7**	

5.3 SECONDARY SCREENING

Following the stakeholder and public outreach activities, described in section, a secondary screening was conducted for the concepts that met the Purpose and Need during the initial screening. The secondary screening consisted of geographic information system (GIS) and desktop level analysis of six of the thirteen alternatives in the long list of alternatives that were carried forward to a secondary screening. GIS data was organized by three themes, detailed below:

 Human considerations	• Residential properties (single and multi-family housing) • Nursing homes, hospitals/medical centers • Government and educational facilities • Historic buildings/structures • Cemeteries • Hazardous sites
 Water resources and threatened and endangered species	• Water resources • River corridors • Significant Class 2 wetlands • Federal Emergency Management Agency (FEMA) flood hazard areas • Rare, threatened, and endangered species habitats (federal and state)
 Protected lands and agricultural soils	• Prime agricultural soils (local prime, prime, and statewide prime) • Protected lands (conserved land, wildlife management area, state, and municipal land)

A buffer of 150 feet was used surrounding existing roadways (300-foot swath) and a buffer of 500 feet was used for new roadway sections (1000-foot swath). The 500-foot buffer(1000-foot swath) was modified when potential impacts were unavoidable.

5.3.1 Blue and Pink Routes - Vergennes New Roadway (West Routing Option 3 and Option 4)

The Vergennes New Roadway concepts (West Routing Options 3 - Blue Route and 4 - Pink Route) include the construction of a new roadway primarily within Vergennes west of Downtown, connecting Vermont Route 22A near the Vergennes/Panton municipal boundary with Vermont Route 22A near the Vergennes/Ferrisburgh municipal boundary. This concept would include a new crossing of Otter Creek. Figure 5-2, Figure 5-3, and Figure 5-4 present the human considerations, natural resources, and agricultural lands, respectively, and highlight the following items for consideration during secondary screening:

1) The southernmost section of these concepts includes a cluster of single-family dwellings west of Route 22A in Panton. The 1000-foot swath was extended to the west to avoid this potential impact.

2) As the Pink Route enters Vergennes a portion of the potential swath of land in which the route may be constructed overlaps with Prospect Cemetery, a known historic resource.

3) The Blue Route and Pink Route encounter a cluster of residential homes in the vicinity of Panton Road. Depending on the alignment of the Pink Route within the 'swath', the new roadway would be primarily in Vergennes. However, further east, the new roadway has the potential to impact the Otter Creek Mobile Home Park and Prospect Cemetery. As the routes travel northeast between McDonough Drive to Route 22A, there are several homes west of Comfort Hill Street.

4) Within Panton and along the western Vergennes municipal boundary there are several streams within the 1000-foot swath.

5) As the route travels north to Otter Creek, there is a rare, threatened, and endangered habitat near the Panton/Ferrisburgh/Vergennes municipal boundary. This area is also identified as a FEMA flood hazard area and has the presence of Vermont Class 2 significant wetlands. Within the section between MacDonough Drive and the connection at Route 22A, there are several more streams and two additional areas noted as Vermont Class 2 significant wetlands.

6) The areas between Route 22A and the Vergennes municipal boundary contains prime and statewide prime soils. At the Panton/Ferrisburgh/Vergennes municipal boundary, the Blue Route features statewide prime agricultural soil and wildlife management area. Prime and statewide prime agriculture soils also surround Otter Creek.

7) An area east of Comfort Hill Street is protected as private conserved land. The 1000-foot swath was extended an additional 500 feet to the south to avoid this potential impact.

Both the Blue Route and Pink Route scored high during the initial screening and no fatal flaws were identified during the secondary screening. Therefore, it is recommended that these concepts move forward for further study.

Figure 5-2 Historic Properties, Schools, And Residential Land Uses: Vergennes New Roadway (West Routing Option 3 – Blue Route and Option 4 – Pink Route)

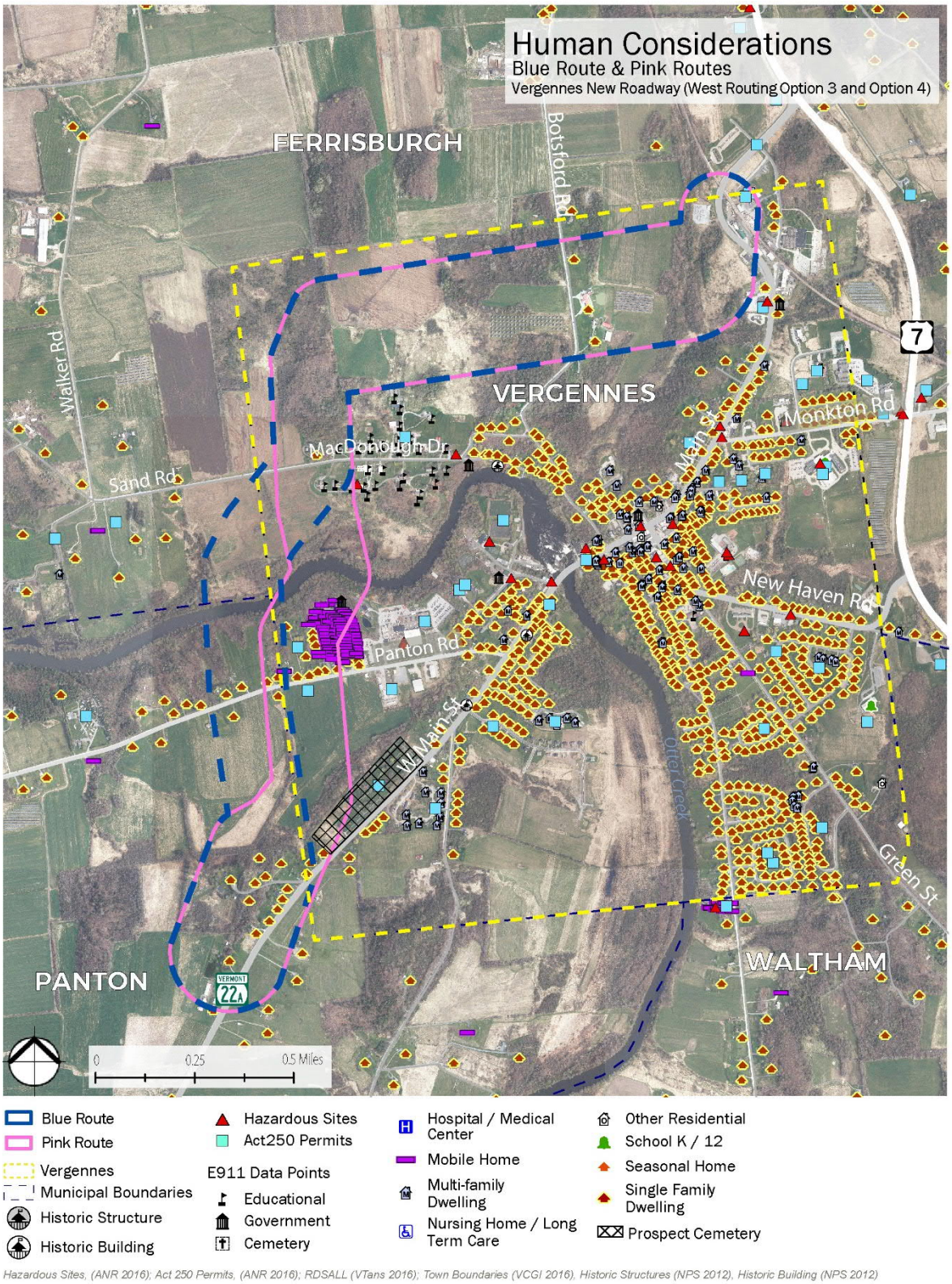
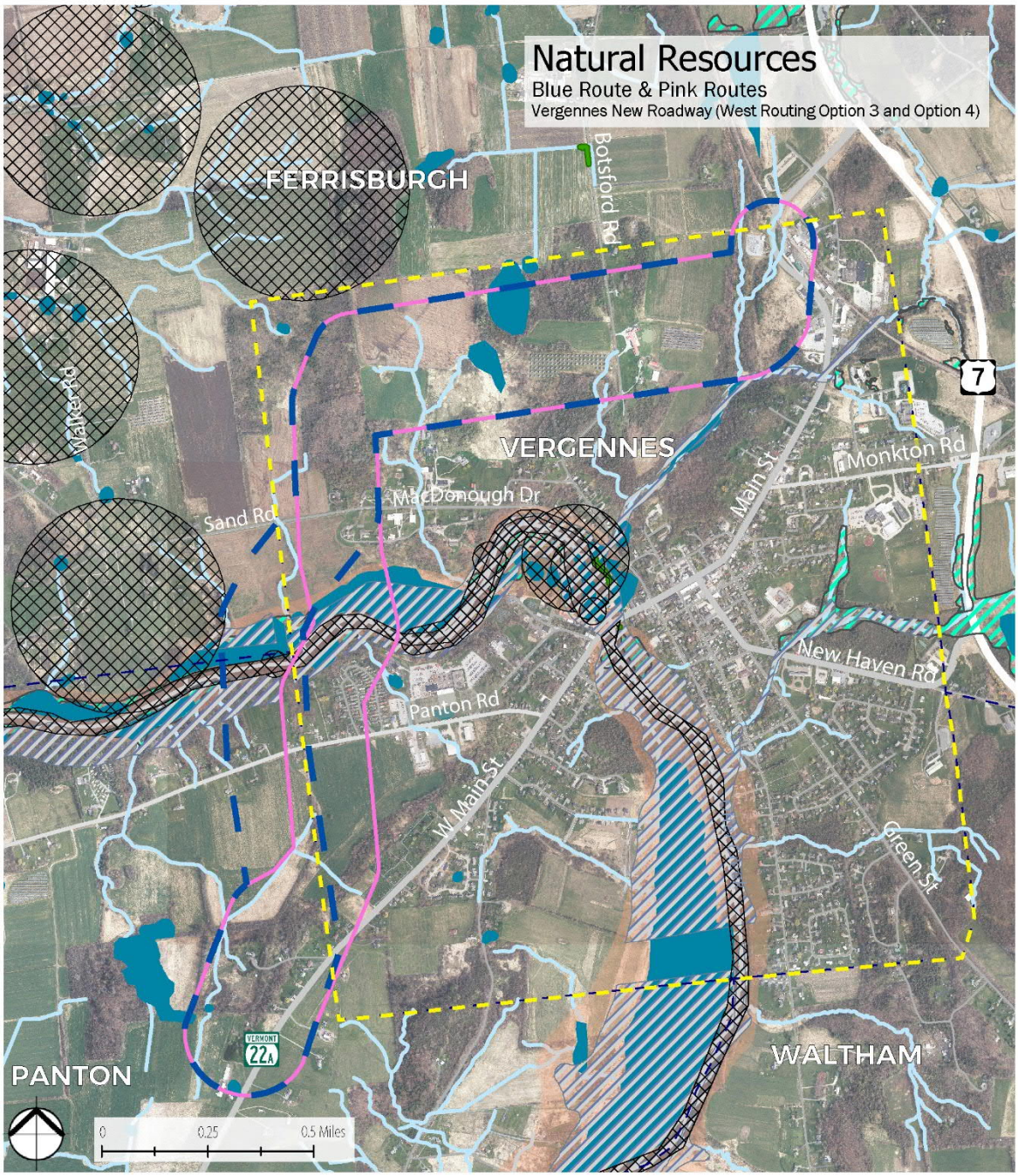
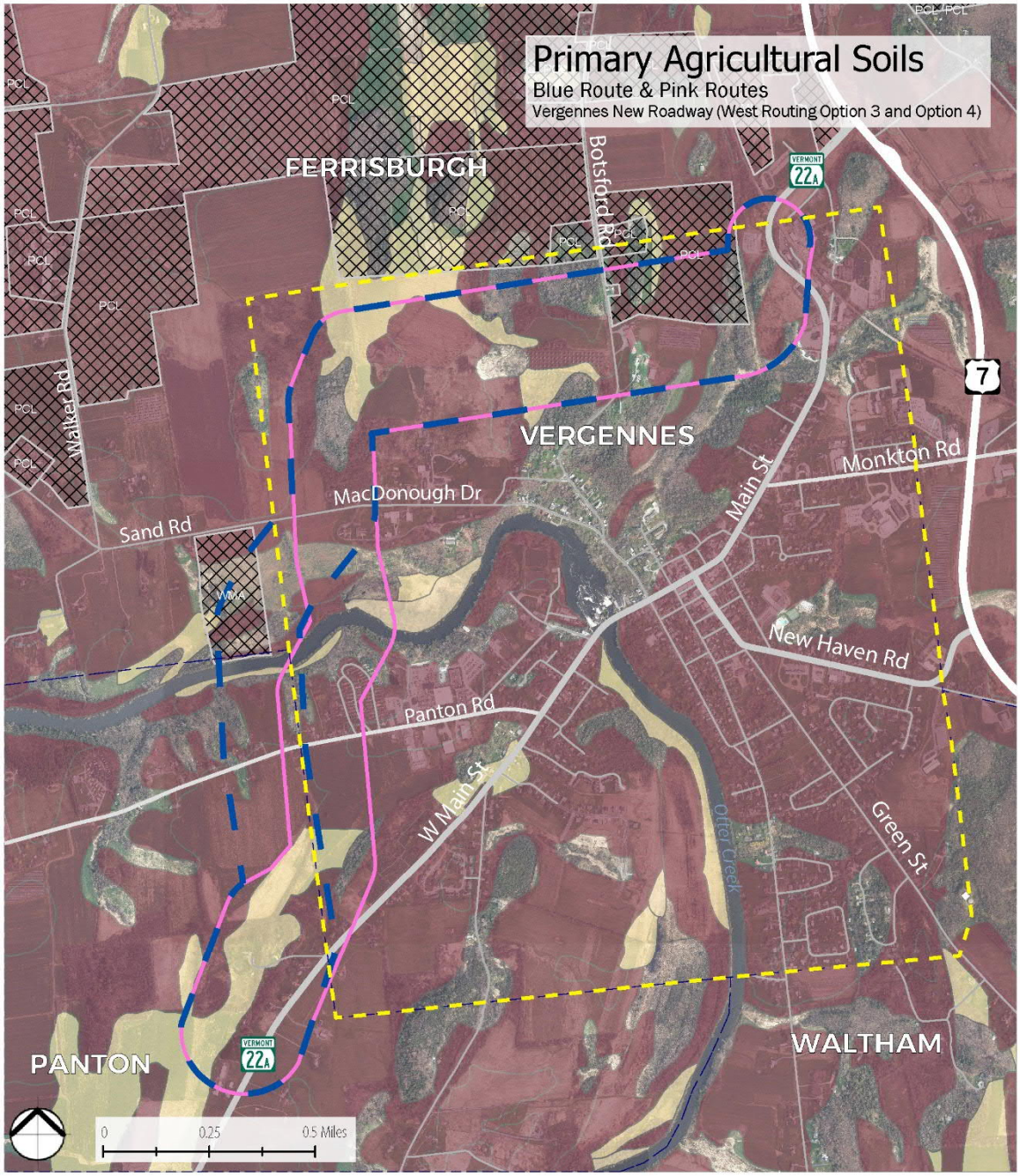


Figure 5-3 Water Resources and Threatened and Endangered Species: Vergennes New Roadway (West Routing Option 3 – Blue Route and Option 4 –Pink Route)



Data Sources: FEMA Flood Hazard Areas (ANR 2022); VT Rare, Threatened and Endangered Species (VNHI 2023); River Corridors, (ANR 2019); Rivers & Streams (USGS 2021), VT VSWI, (VCGI2020); VTORTHO (VCGI 2022)

Figure 5-4 Protected Lands and Agricultural Soils, Vergennes New Roadway: (West Routing Option 3 – Blue Route and Option 4 – Pink Route)



Data Sources: Agriculturally Important Soil Units (VCGI 2021); VT Protected Lands Database (VCGI 2021); VTORTHO (VCGI 2022)

5.3.2 Purple Route – VT-17 Northbound/VT 22A Southbound

The VT-17 Northbound/VT-22A Southbound concept, alternatively the "Purple Route," would shift northbound truck traffic currently using Route 22A to Route 17 and Route 7, maintaining southbound truck trips on Route 22A through Vergennes. This concept would generally utilize existing roadways with targeted improvements, including widened shoulders or travel lanes, roadway profile changes, or intersection improvements. This would reduce the total volume of truck trips within Downtown Vergennes and mitigate circulation challenges associated with the steep grade on Route 22A approaching the downtown core. This concept was identified during the 2021 Vergennes PEL Study Focus Group Sessions. Figure 5-5, Figure 5-6, Figure 5-7 present the human considerations, natural resources, and agricultural lands, respectively, and highlight the following items for consideration during secondary screening:

1) In the westernmost section of Route 17, within Addison, there are single family homes along the roadway, with fewer homes as the roadway moves into New Haven. There is an increase in dwelling density near the border of New Haven and Waltham as Route 17 connects to U.S. Route 7.

2) At the New Haven/Weybridge/Waltham municipal boundary along Otter Creek, there are habitat areas of rare, threatened, and endangered animal areas and wetlands. In New Haven, approaching the Waltham municipal boundary, there are protected lands east of the roadway. Lastly, there is a section of Vermont Significant Wetlands(Class 2) adjacent to the road near the Waltham/New Haven border.

3) The New Haven Junction Station is a historic structure, shown adjacent to the Route 7/Route 17 connection that was moved in 2022 to a location on North Street, north of Route 17.

4) As the route moves northbound in New Haven there are primarily single-family homes, as well as multifamily dwellings and mobile homes adjacent to the roadway. Continuing north, within Waltham there are several residential properties adjacent to the roadway.

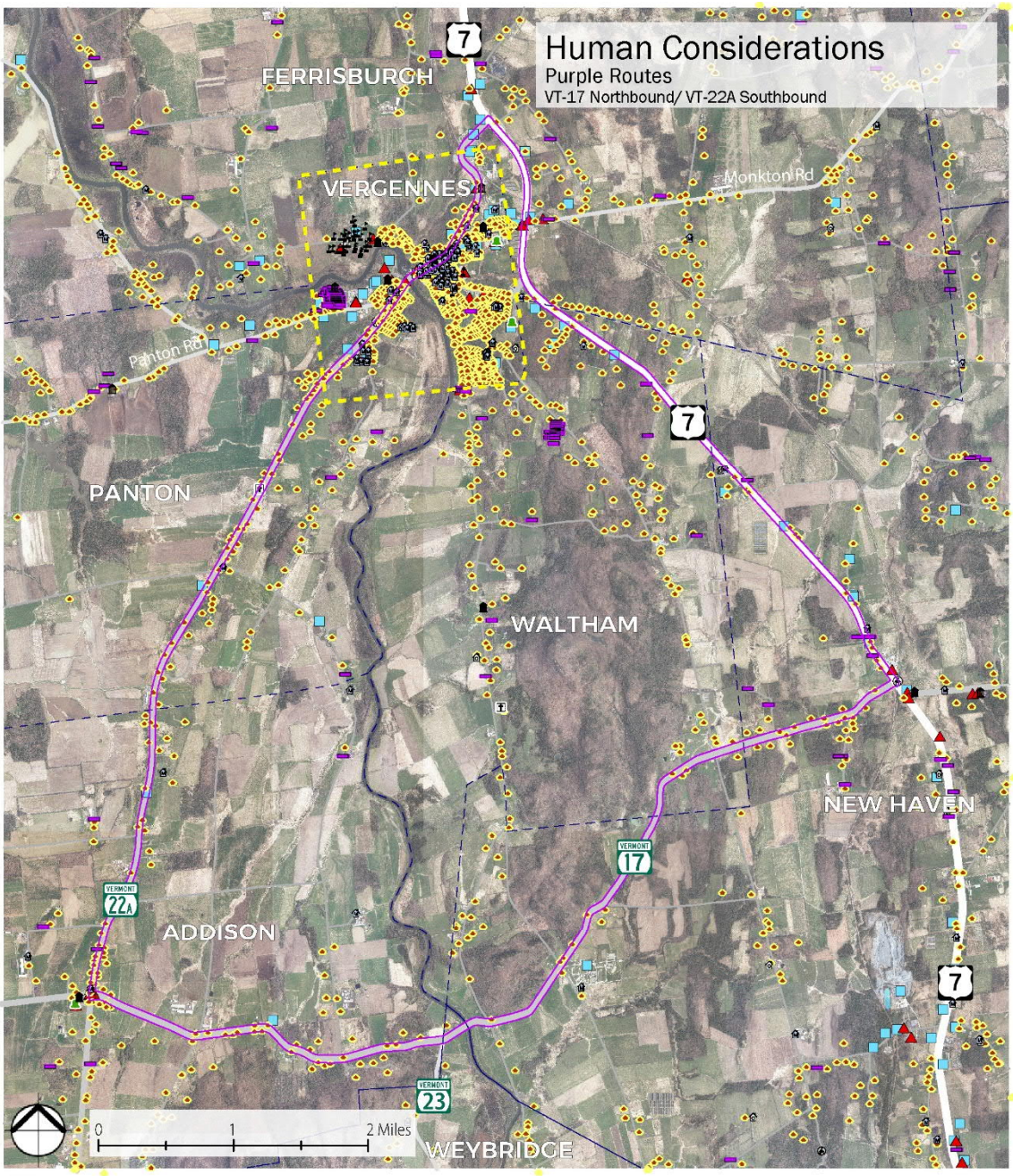
5) At the intersection of U.S. Route 7 and Route 17, there is a section of state significant wetlands in New Haven.

6) Route 22A includes the most densely populated sections within this concept. Traveling north to south, within Vergennes the dwellings surrounding the route are primarily single-family homes but include several multi-family homes as well. Notably there is a cemetery near the Panton/Vergennes border within Vergennes as well as a cemetery further south in Panton off of Route 22A. Within Panton and Addison there are single family homes generally on either side of Route 22A.

7) Based on United States Fish and Wildlife (USFW) information for planning and consultation (IPaC) the northern section of Route 22A within Vergennes, around Otter Creek include the Indiana Bat and Northern Long-Eared Bat. As Route 22A moves further south there are small sections of Vermont Significant Wetlands (Class 2) wetland and protected land within Addison.

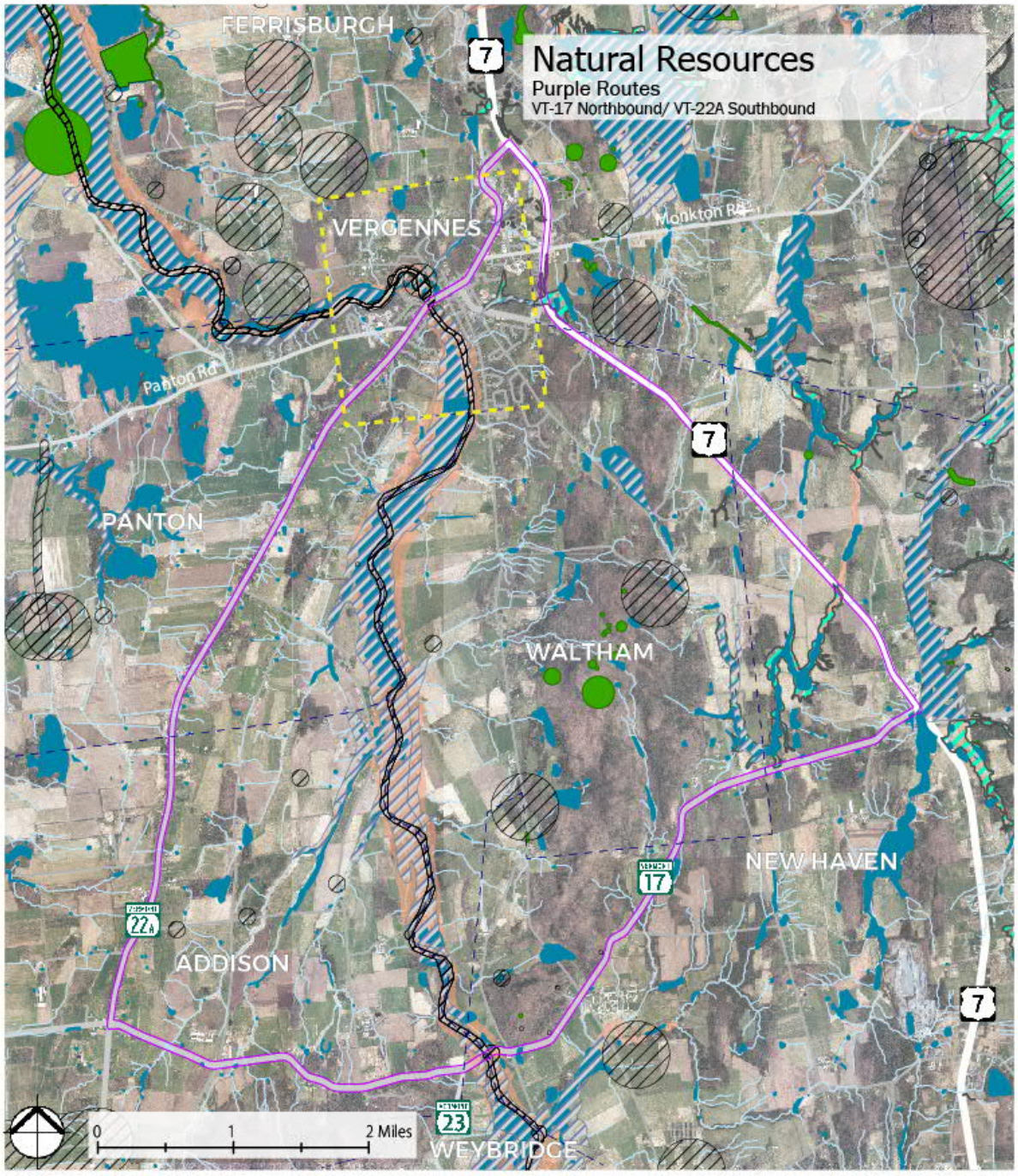
The Purple Route meets the Purpose and Need, scored high during the initial screening, and no fatal flaws were identified during the secondary screening. Therefore, the study team recommends that this concept move forward for further study.

Figure 5-5 Historic Properties, Schools, And Residential Land Uses: VT-17 Northbound/VT 22A Southbound (Purple Route)



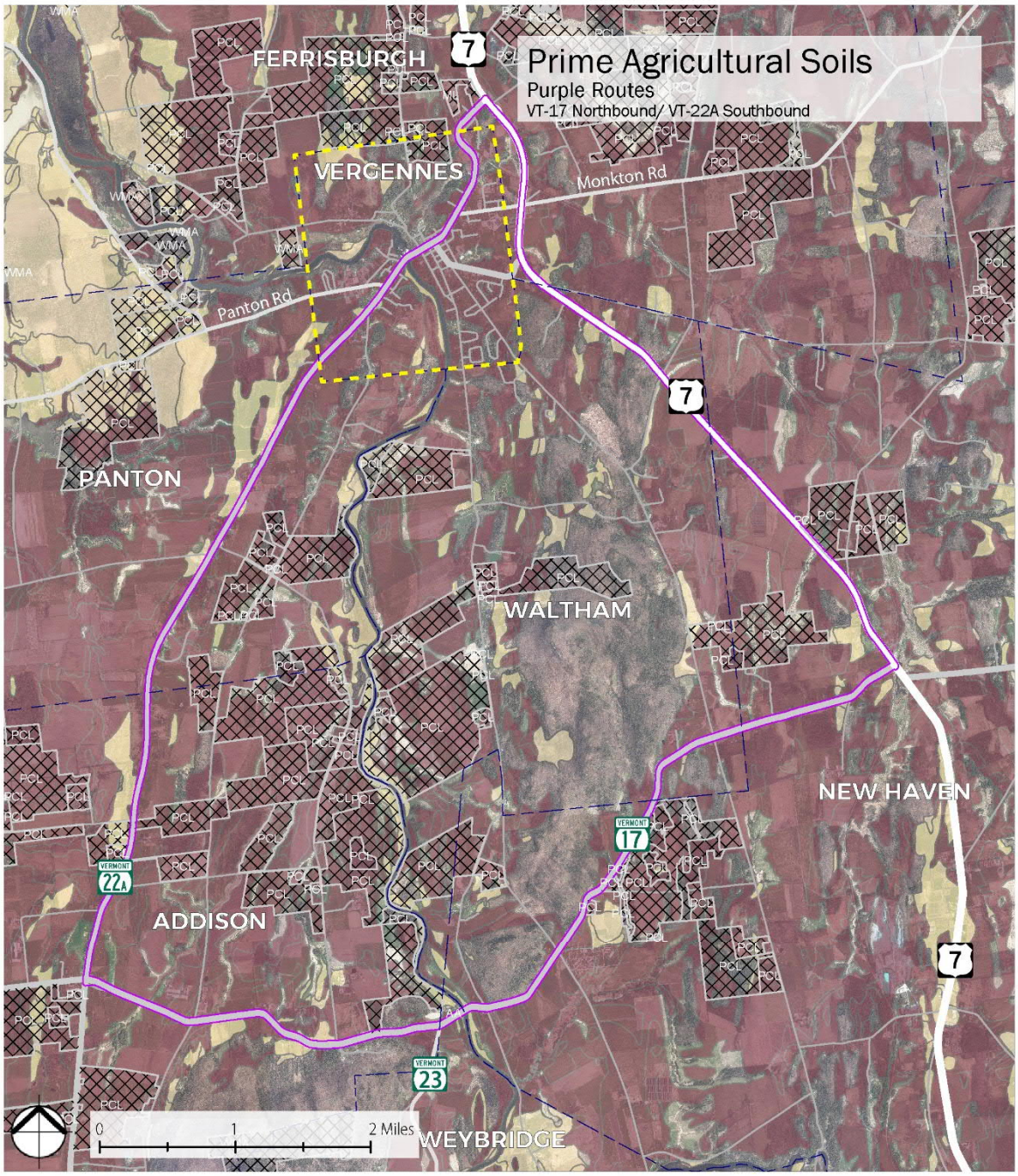
Hazardous Sites, (ANR 2016); Act 250 Permits, (ANR 2016); RDSALL (VTans 2016); Town Boundaries (VCGI 2016), Historic Structures (NPS 2012), Historic Building (NPS 2012)

Figure 5-6 Water Resources and Threatened and Endangered Species: VT-17 Northbound/VT 22A Southbound (Purple Route)



Data Sources: FEMA Flood Hazard Areas (ANR 2022); VT Rare, Threatened and Endangered Species (VNHI 2023); River Corridors, (ANR 2019); Rivers & Streams (USGS 2021), VT VSWI, (VCGI2020); VTORTHO (VCGI 2022)

Figure 5-7 Protected Lands and Agricultural Soils: VT-17 Northbound/VT 22A Southbound (for Purple Route)



Data Sources: Agriculturally Important Soil Units (VCGI 2021); VT Protected Lands Database (VCGI 2021); VTORTHO (VCGI 2022)

5.3.3 Orange Route - Vergennes Main Street New Parallel Route

The Vergennes Main Street New Parallel Route concept (Orange Route) includes the construction of a new roadway west of Route 22A, in close proximity to downtown Vergennes. The new roadway portion of this concept would link Route 22A in the vicinity of the Ferrisburgh/Vergennes municipal boundary with MacDonough Drive west of Route 22A, connecting with Route 22A north of the Otter Creek Bridge. Figure 5-8, Figure 5-9, and Figure 5-10 present the human considerations, natural resources, and agricultural lands, respectively, and highlight the following items for consideration during secondary screening:

1) Within the City of Vergennes, the Vergennes Main Street New Parallel Route is located in close proximity to several single-family homes (along Main Street, MacDonough Drive, and Comfort Hill Street.

2) Along MacDonough Drive, the concept includes portions of Otter Creek, FEMA flood hazard areas, and state significant wetlands. According to the USFW IPaC this route potentially impacts endangered species that include the Indiana Bat and Northern Long-Eared Bat.

3) There are several sections of prime agricultural soil that surround Route 22A, as well as east of Comfort Hill Street. However, the areas adjacent to Route 22A are residential and commercial uses and the soils were mapped prior to these developments.

4) As part of the secondary screening, based on agency and public stakeholder concerns about the topographic challenges of this route, the study team reviewed the existing conditions to determine the feasibility of new roadway construction. This analysis indicated that, with appropriate design elements and mitigations, that a new road (replacing the existing MacDonough Drive) would be feasible and could still meet standards. The topographic concerns related to the Orange Route, as well as any other topographical concerns related to the other concepts under consideration will be further assessed as the study continues.

The Orange Route meets the Purpose and Need and scored high during the initial screening. No fatal flaws were identified during the secondary screening. Topographic challenges were identified but are not a fatal flaw. Therefore, the study team recommends that this concept move forward for further study.

Figure 5-8 Historic Properties, Schools, And Residential Land Uses: Vergennes Main Street New Parallel Route (Orange Route)

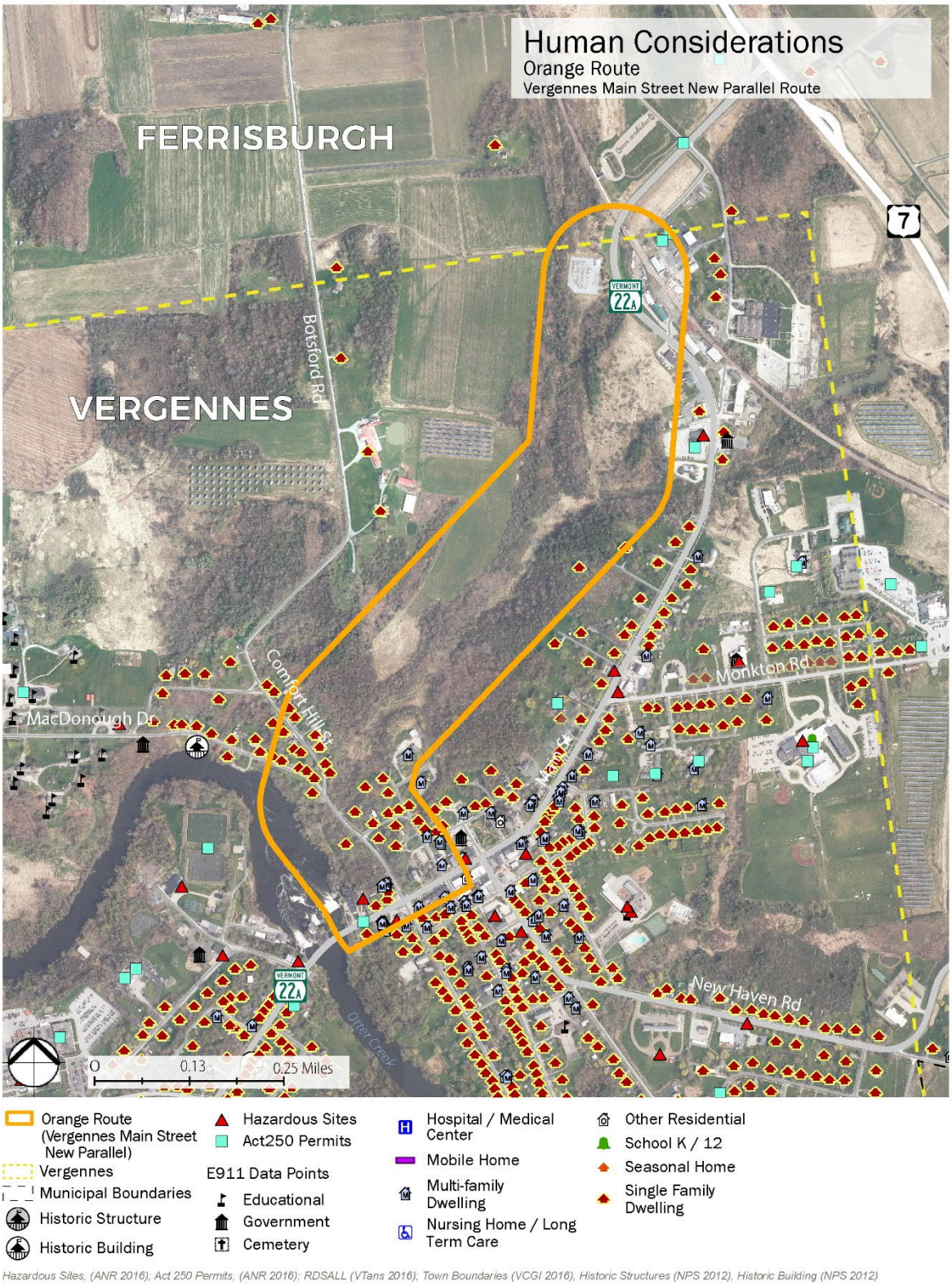
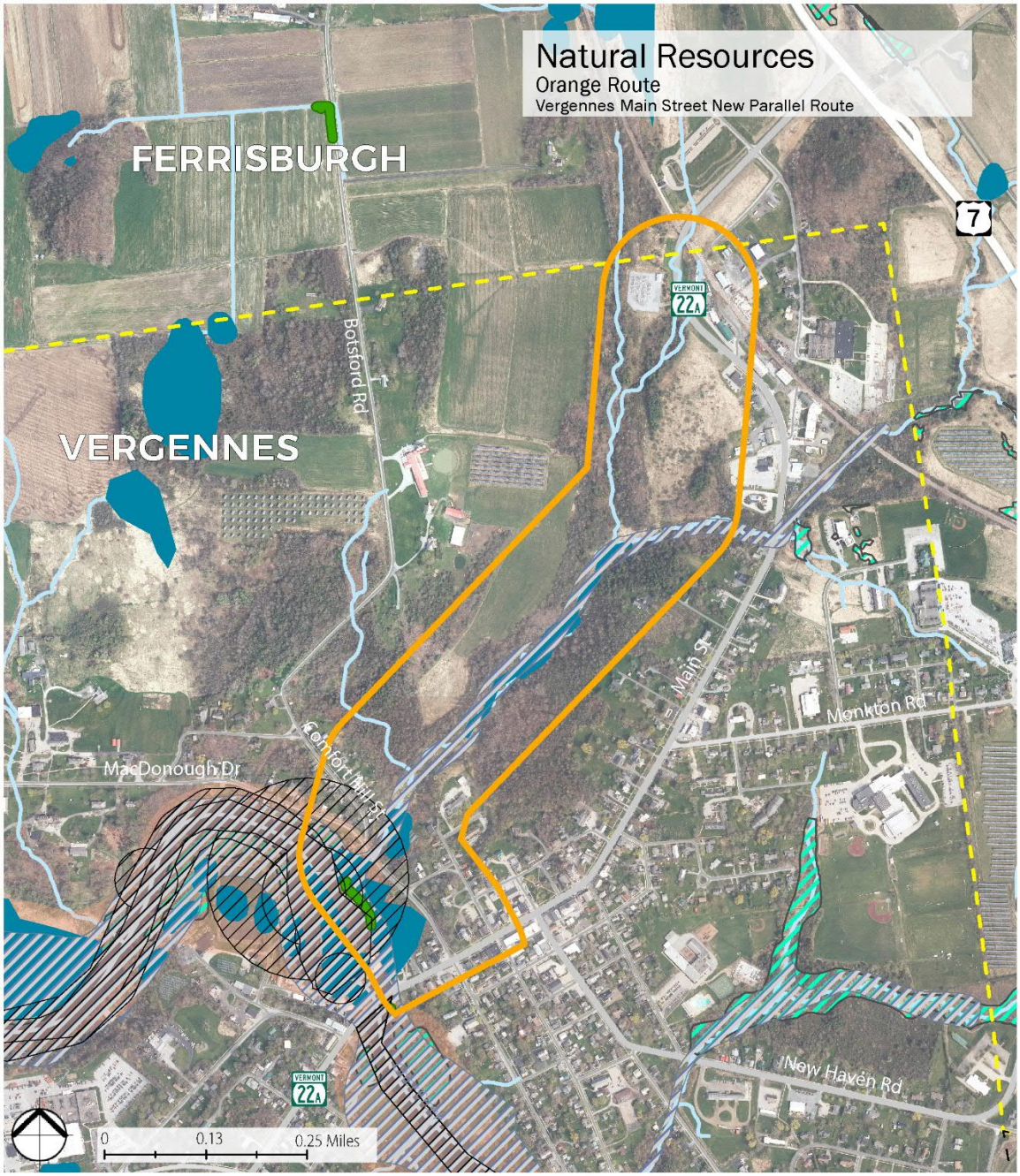
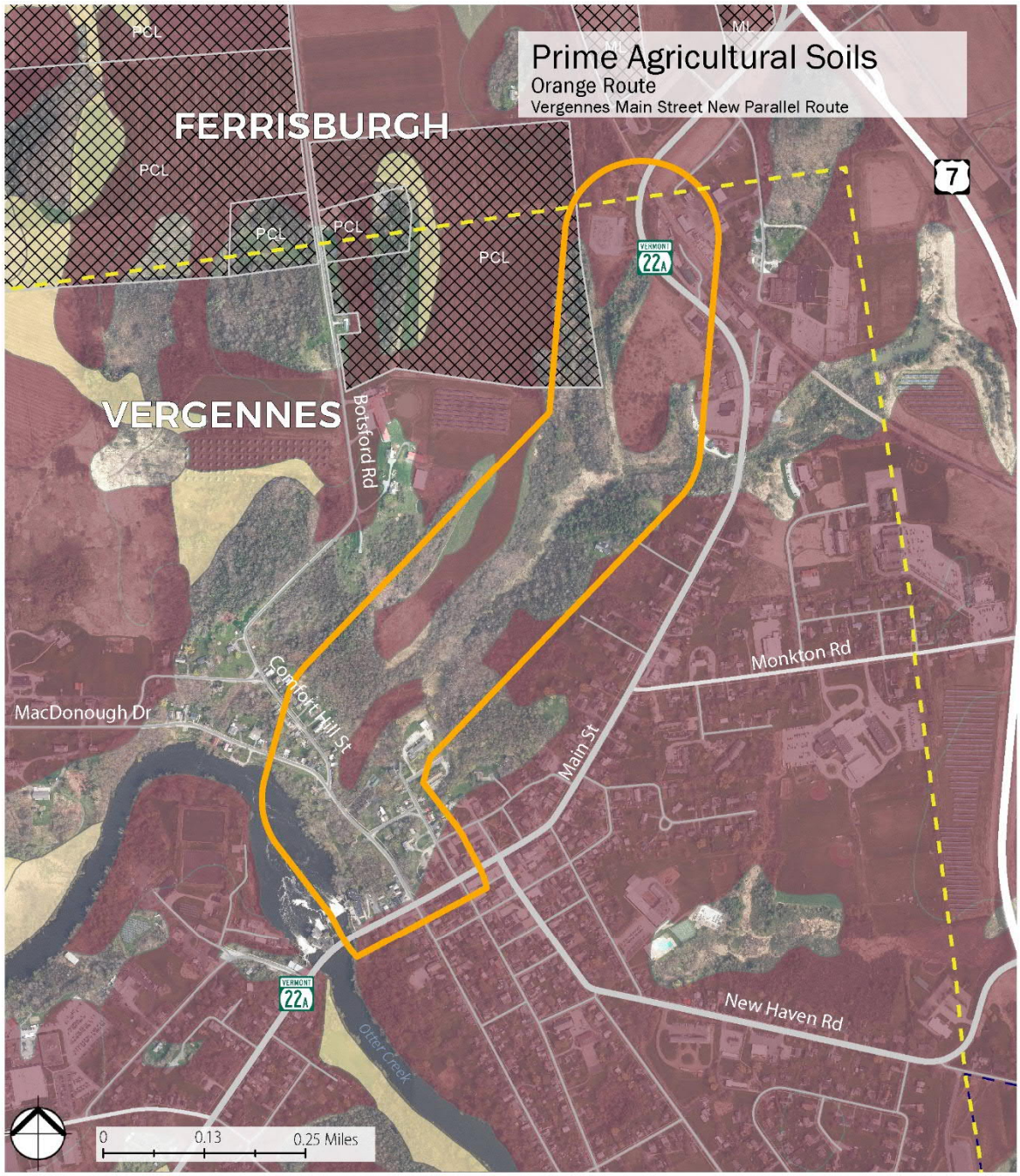


Figure 5-9 Water Resources and Threatened and Endangered Species: Vergennes Main Street New Parallel Route (Orange Route)



Data Sources: FEMA Flood Hazard Areas (ANR 2022); VT Rare, Threatened and Endangered Species (VNHI 2023); River Corridors, (ANR 2019); Rivers & Streams (USGS 2021), VT VSWI, (VCGI2020); VTORTHO (VCGI 2022)

Figure 5-10 Protected Lands and Agricultural Soils: Vergennes Main Street New Parallel Route (Orange Route)



Data Sources: Agriculturally Important Soil Units (VCGI 2021); VT Protected Lands Database (VCGI 2021); VTORTHO (VCGI 2022)

5.3.4 Green Route - Panton-Vergennes-Waltham New Roadway (Southeast Routing)

The Vergennes New Roadway concept (Southeast Routing - Green Route) includes the construction of a new roadway primarily south and east of Vergennes within Panton and Waltham. This concept would connect U.S. Route 7 in the vicinity of New Haven Road in Waltham or Ferrisburgh with Route 22A approximately one mile south of the Vergennes/Panton municipal boundary. The road would intersect with several existing roadways, including Green Street and Maple Street in Waltham and Hopkins Road in Panton. This concept would include a new crossing of Otter Creek in the vicinity of the Panton/Waltham municipal boundary. Figure 5-11, Figure 5-12, and Figure 5-13 present the human considerations, natural resources, and agricultural lands, respectively and highlight .the following items for consideration during secondary screening:

1) The majority of the area within the 1000-foot swath is designated as Statewide Prime Agricultural Soil or Prime Soil.

2) Throughout the western segment of the concept there is a concentration of streams, the areas west and east of the proposed new Otter Creek crossing are designated as flood hazard areas as well as Vermont significant wetlands.

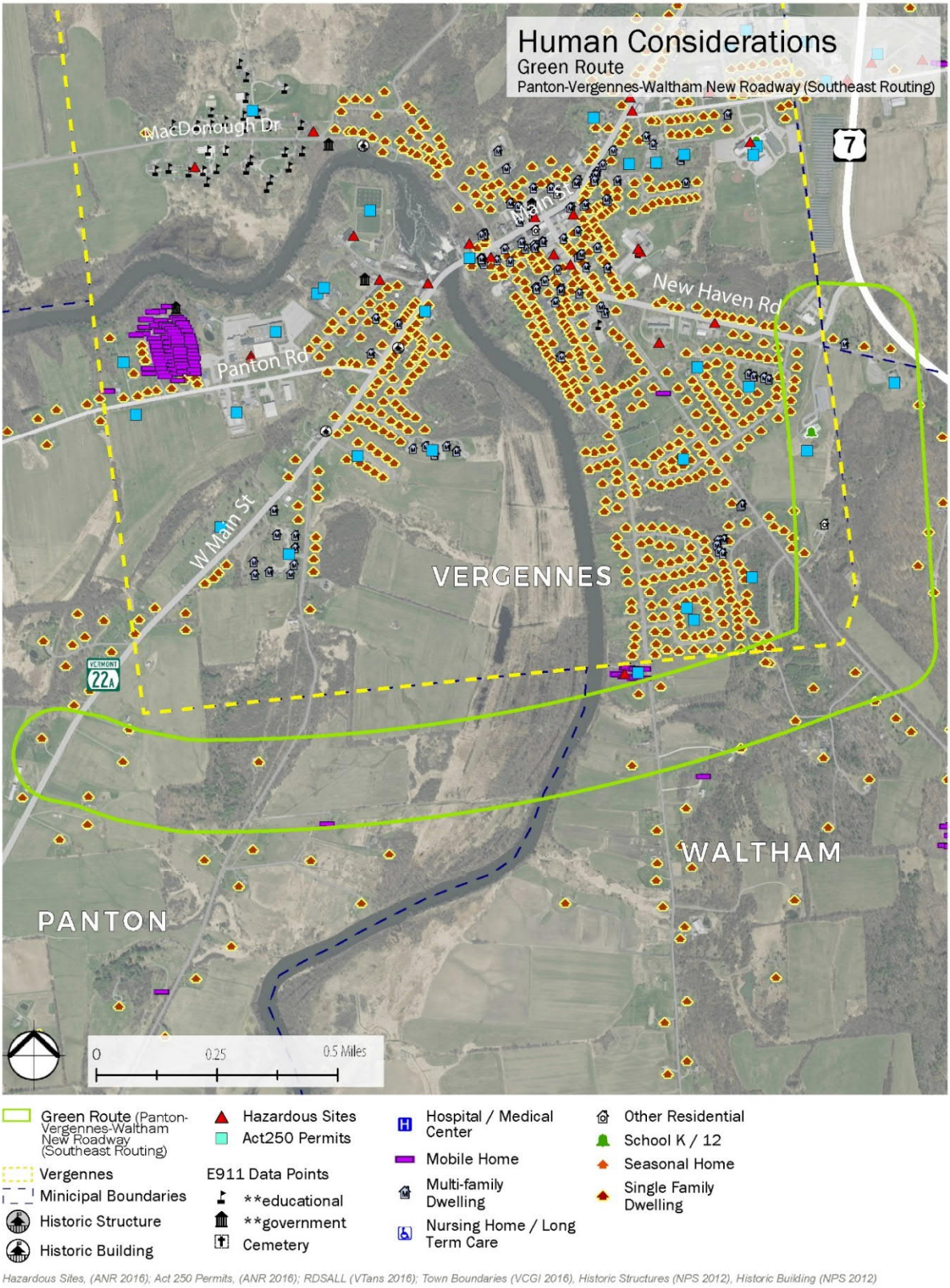
3) East of the wetland area there is a federal threatened and endangered animal habitat. Based on the USFW IPaC, species include the Indiana Bat and Northern Long-Eared Bat.

4) The area is not a densely populated residential area, but there is a cluster of single-family homes located within the northeast section of the area.

5) There is a school located near the northeast segment of the concept near the intersection of Church Street and U.S. Route 7 in Vergennes. Outreach and discussions with agency partners indicated that there may be protected land near this property as part of an Act 250 permit. The 1000-foot swath was extended 500 feet to the east to avoid this potential impact.

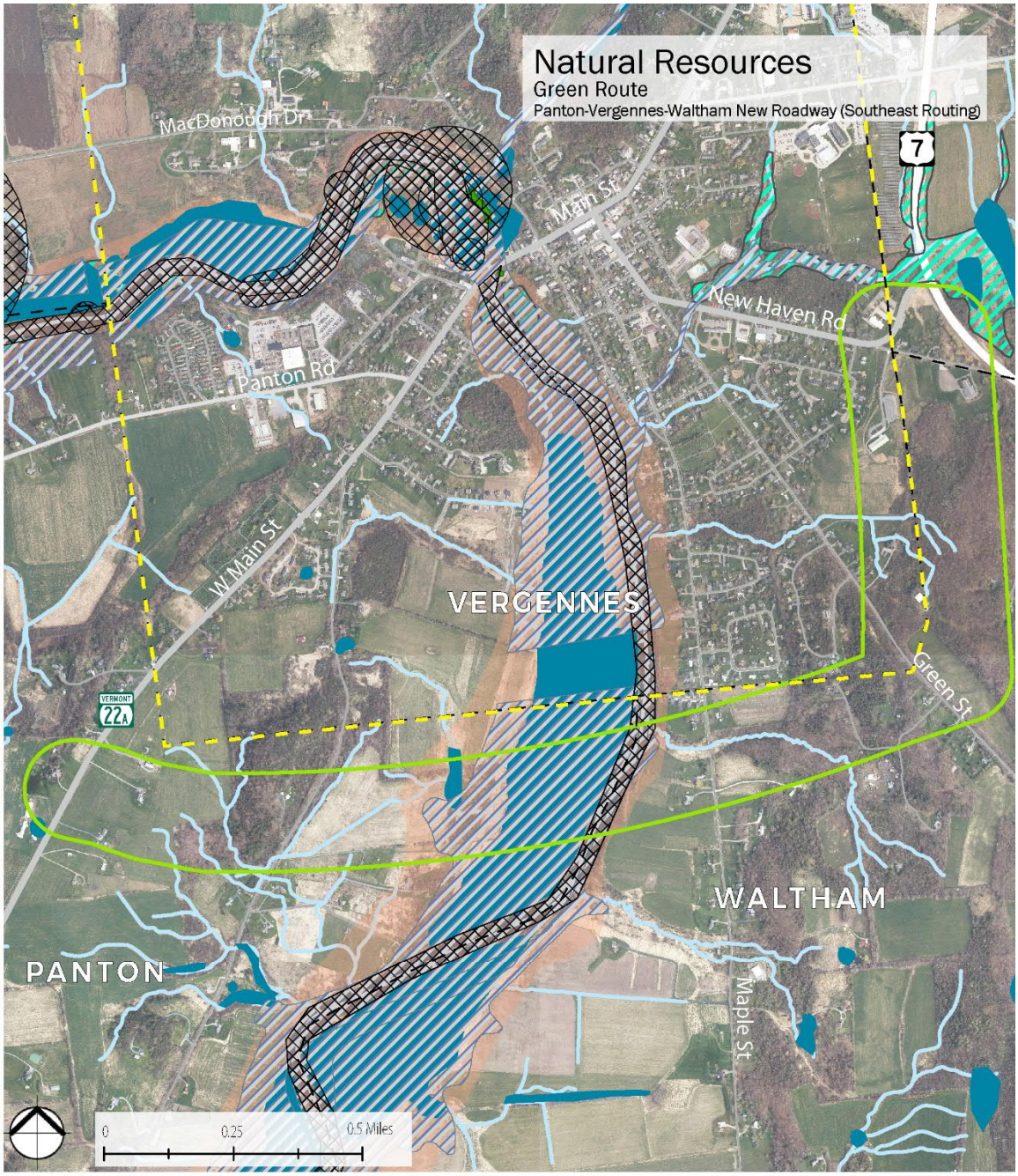
The Green Route meets the Purpose and Need but scored lower during the initial screening. During the secondary screening, potential impacts, particularly to wetlands, were identified. However, the potential impact to other resources, such as residential properties, is less. In addition, a new Otter Creek crossing upstream of the Vergennes Falls may be less challenging than the proposed crossings downstream (Red Route, Blue Route, and Pink Route). Therefore, the study team recommends that the Green Route move forward for further study.

Figure 5-11 Historic Properties, Schools, And Residential Land Uses: Panton-Vergennes-Waltham New Roadway (Southeast Routing – Green Route)



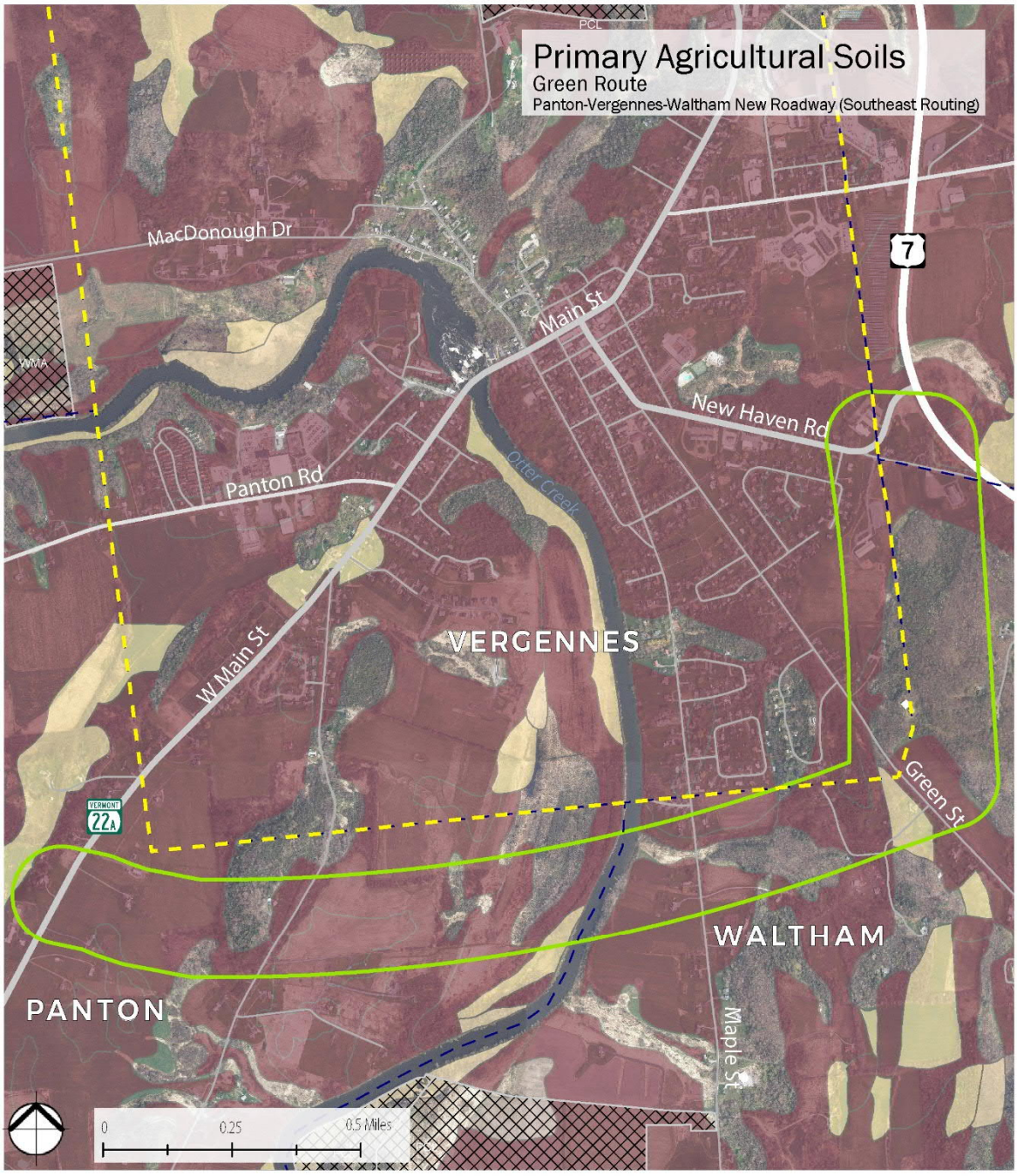
Hazardous Sites, (ANR 2016); Act 250 Permits, (ANR 2016); RDSALL (VTans 2016); Town Boundaries (VCGI 2016), Historic Structures (NPS 2012), Historic Building (NPS 2012)

Figure 5-12 Water Resources and Threatened and Endangered Species: Panton-Vergennes-Waltham New Roadway (Southeast Routing – Green Route)



Data Sources: FEMA Flood Hazard Areas (ANR 2022); VT Rare, Threatened and Endangered Species (VNHI 2023); River Corridors, (ANR 2019); Rivers & Streams (USGS 2021), VT VSWI, (VCGI2020); VTORTHO (VCGI 2022)

Figure 5-13 Protected Lands and Agricultural Soils: Panton-Vergennes-Waltham New Roadway (Southeast Routing – Green Route)



Data Sources: Agriculturally Important Soil Units (VCGI 2021); VT Protected Lands Database (VCGI 2021); VTORTHO (VCGI 2022)

5.3.5 Red Route – Panton-Ferrisburgh New Roadway (West Routing Option 1)

The Panton-Ferrisburgh New Roadway concept (West Routing Option 1 - Red Route), includes the construction of a new roadway contained within Panton and Ferrisburgh and a new Otter Creek crossing in Panton. The new Otter Creek crossing would be downstream of the Otter Creek Falls in Vergennes in navigable waters, which would require permitting from the United States Coast Guard as well as the US Army Corps of Engineers Section 408 program The new roadway would connect to existing roadways, including Walker Road and Little Chicago Road, each of which would require improvements to support additional traffic. Figure 5-14, Figure 5-15, and Figure 5-16 present the human considerations, natural resources, and agricultural lands, respectively, and highlight the following items for consideration during secondary screening:

There are several residential dwellings in the southernmost section of the proposed new roadway in Panton. As the route travels north and connects to Walker Road, there are homes adjacent to the existing roadway. Similarly, as the route travels east along Little Chicago Road and there are residential properties located along each side of the roadway.

1) As the proposed new roadway enters Ferrisburgh, there are several areas noted as a rare, threatened and endangered species habitat. Based on the USFW IPaC and the Vermont Natural Heritage Inventory, threatened and endangered species include the Indiana Bat, Northern Long-Eared Bat, Upland Sandpiper, Freshwater Mussels, and Silver Lamprey, among others along Walker Road and Little Chicago Road (Little Otter Creek riparian area).

2) Between Route 22A and the Panton/Ferrisburgh border there is a mix of statewide prime agricultural soil and prime agricultural soil.

3) In Ferrisburgh a significant portion of the land adjacent to Walker Road and Little Chicago Road is classified as private conserved land.

The Red Route meets the Purpose and Need but scored lower during the initial screening. The secondary screening confirmed the findings of the initial screening and added the presence of federal and state threatened and endangered species along most of the route. Based on the secondary screening, the Red Route has an equal or greater potential for impacts compared to the nearby alternate corridors. Considering that it scored much lower than those in the initial screening, the study team recommends that the Red Route be eliminated from further study.

Figure 5-14 Historic Properties, Schools, And Residential Land Uses: Panton-Ferrisburgh New Roadway (West Routing Option 1 – Red Route)

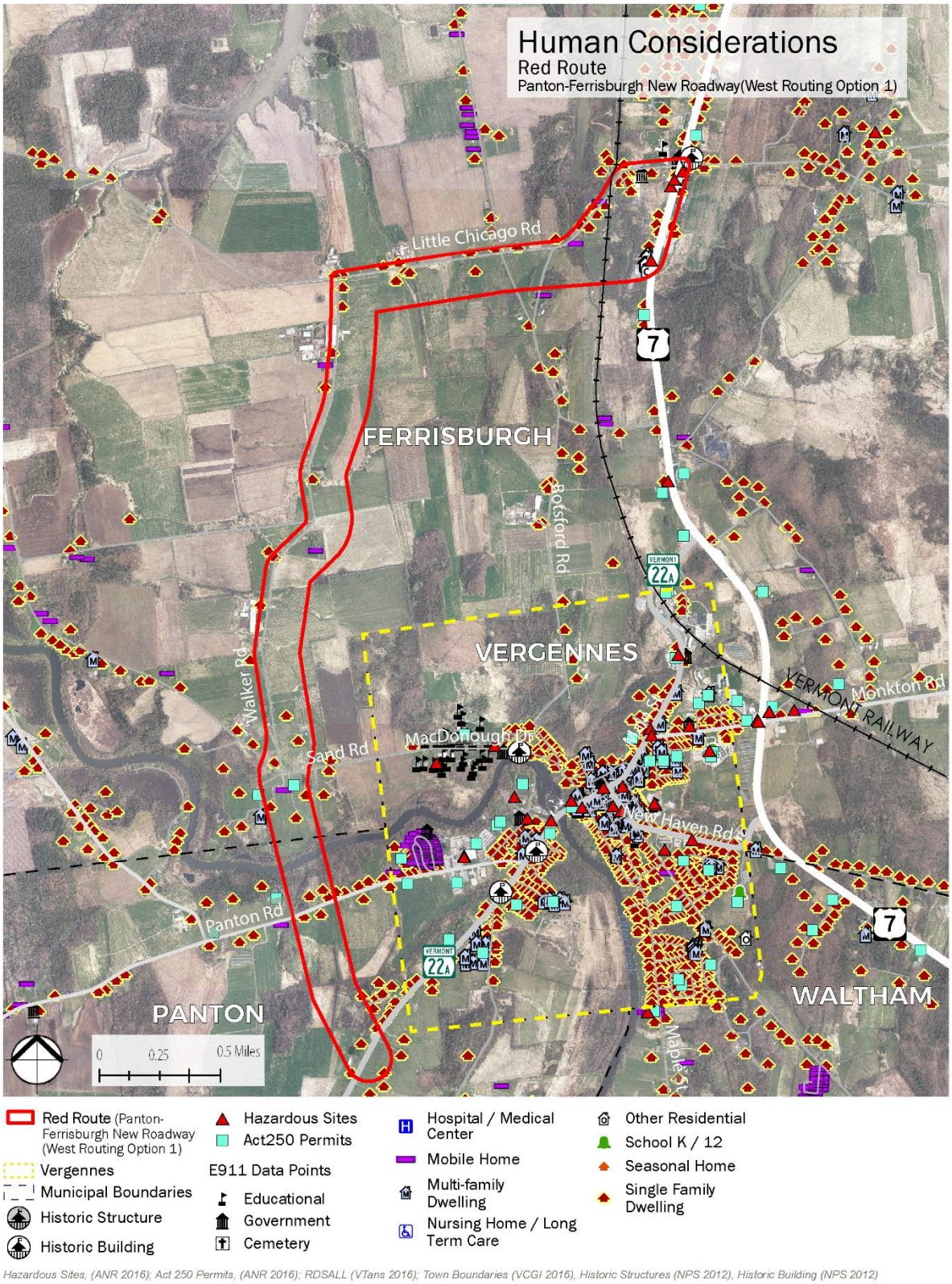
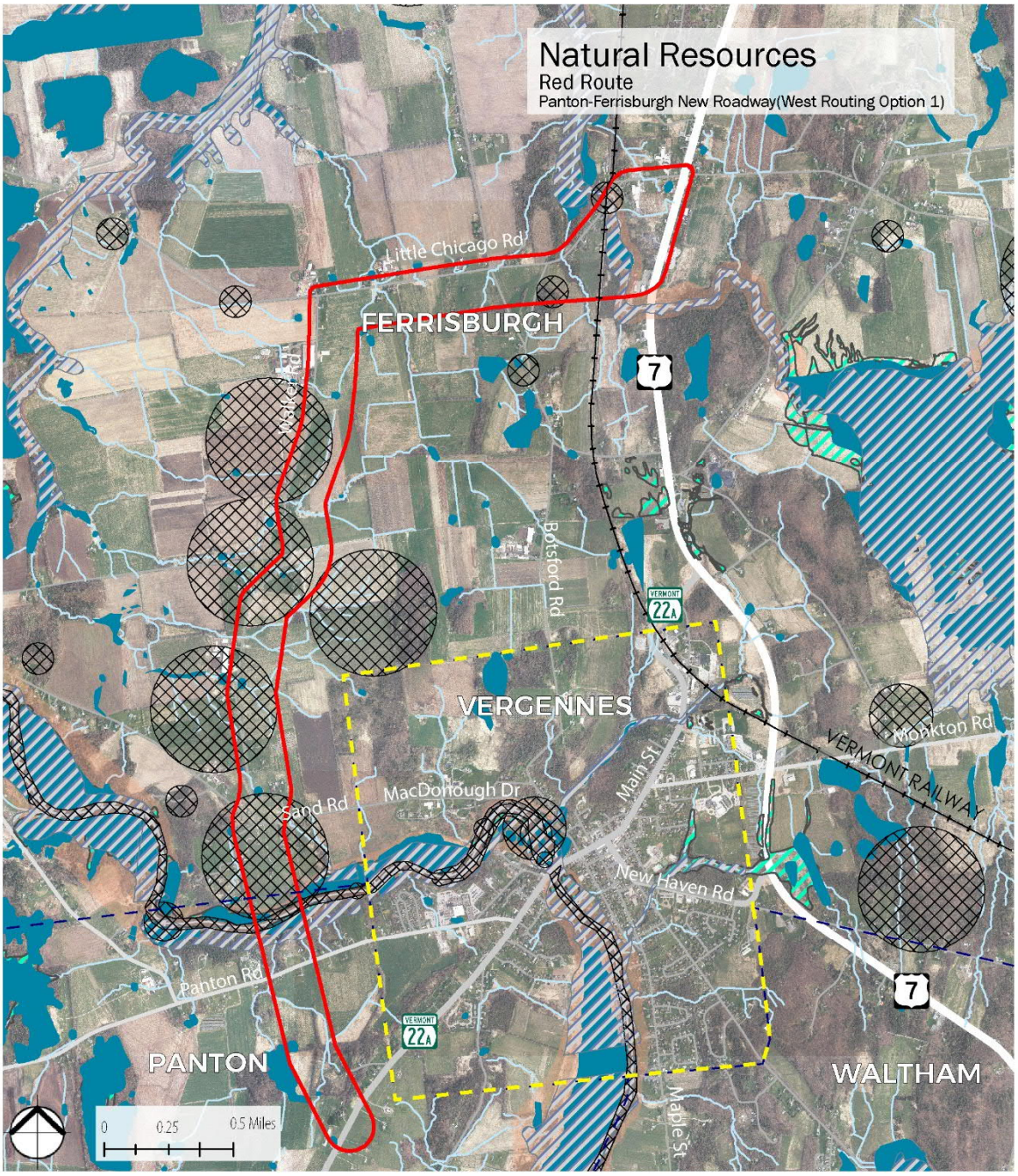
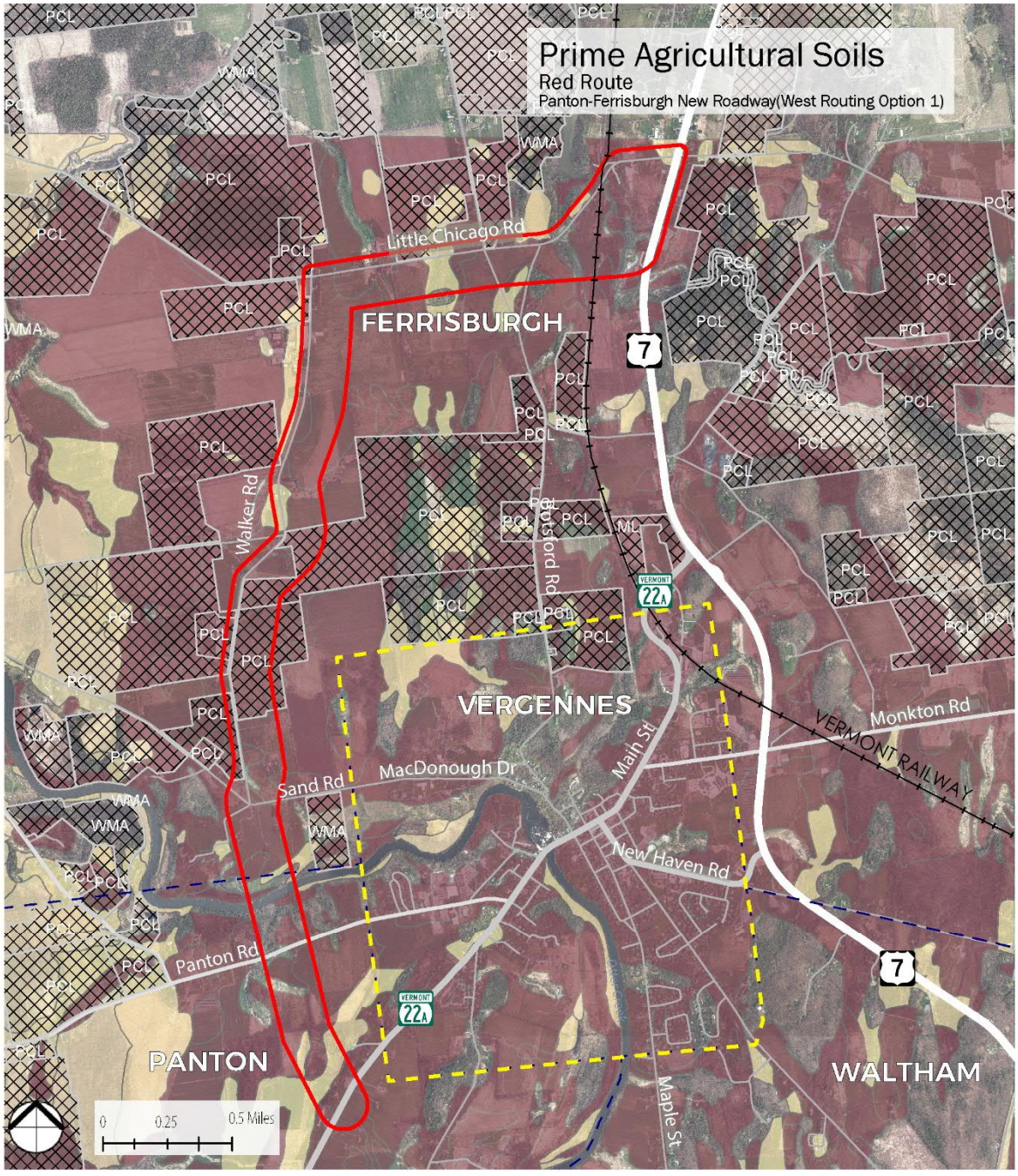


Figure 5-15 Water Resources and Threatened and Endangered Species: Panton-Ferrisburgh New Roadway (West Routing Option 1 – Red Route)



Data Sources: FEMA Flood Hazard Areas (ANR 2022); VT Rare, Threatened and Endangered Species (VNHI 2023); River Corridors, (ANR 2019); Rivers & Streams (USGS 2021), VT VSWI, (VCGI2020); VTORTHO (VCGI 2022)

Figure 5-16 Protected Lands and Agricultural Soils: Panton-Ferrisburgh New Roadway (West Routing Option 1 – Red Route)



Data Sources: Agriculturally Important Soil Units (VCGI 2021); VT Protected Lands Database (VCGI 2021); VTORTHO (VCGI 2022)

5.4 CONCLUSION

The screening of concepts included the following steps:

- Development of a long list of concepts
- Development of screening criteria based on the study purpose and need
- Initial screening of concepts, based on screening criteria
- Secondary screening of concepts, based on geographic information systems (gis) data
- Elimination of concepts not advanced for further study

A summary of the screening results is presented in the table below. Additional information and current and future reports can be found on the Vergennes Planning and Environment Linkages Study website (www.vergennespel.com).

ALTERNATIVE / CONCEPT NAME	MEETS PURPOSE AND NEED	INITIAL SCREENING SCORE	SECONDARY SCREENING RECOMMENDATION
Systemwide	No	5	Dismissed from further study during Initial Screening
VT-17 / Route 7	Yes	1	Dismissed from further study during Initial Screening
VT-22A Corridor Improvements	No	-3	Dismissed from further study during Initial Screening
Rail Mode Options	No	0	Dismissed from further study during Initial Screening
Water Mode Options	No	-7	Dismissed from further study during Initial Screening
Smart Freight Solutions	No	5	Dismissed from further study during Initial Screening
Turquoise Route – Vergennes New Roadway (West Routing Option 2)	No	5	Dismissed from further study during Initial Screening
Red Route – Panton-Ferrisburgh New Roadway (West Routing Option 1)	Yes	1	The Red Route meets the Purpose and Need but scored lower during the initial screening. The secondary screening confirmed the findings of the initial screening and added the presence of federal and state threatened and endangered species along most of the route. **The study team recommends that this concept be eliminated from further study.**
Purple Route – VT-17 Northbound/VT-22A Southbound	Yes	6	The Purple Route meets the Purpose and Need, scored high during the initial screening, and no fatal flaws were identified during the secondary screening. **The study team recommends that this concept move forward for further study.**
Pink Route – Vergennes New Roadway (West Routing Option 3)	Yes	5	The Pink Route scored high during the initial screening and no fatal flaws were identified during the secondary screening. **The study team recommends that this concept move forward for further study.**

ALTERNATIVE / CONCEPT NAME	MEETS PURPOSE AND NEED	INITIAL SCREENING SCORE	SECONDARY SCREENING RECOMMENDATION
Blue Route – Vergennes-Panton New Roadway (West Routing Option 4)	Yes	7	The Blue Route scored high during the initial screening and no fatal flaws were identified during the secondary screening. **The study team recommends that this concept move forward for further study.**
Green Route – Panton-Vergennes-Waltham New Roadway (Southeast Routing)	Yes	0	The Green Route meets the Purpose and Need but scored lower during the initial screening. During the secondary screening, potential impacts, particularly to wetlands, were identified. However, the potential impact to other resources, such as residential properties, is less. In addition, a new Otter Creek crossing upstream of the Vergennes Falls may be less challenging than the proposed crossings downstream (Red Route, Blue Route, and Pink Route). **Therefore, the study team recommends that the Green Route move forward for further study.**
Orange Route – Vergennes Main Street New Parallel Route	Yes	6	The Orange Route meets the Purpose and Need and scored high during the initial screening. No fatal flaws were identified during the secondary screening. Topographic challenges were identified but are not a fatal flaw. **The study team recommends that this concept move forward for further study.**