



June 10, 2020 | Technical Proposal  
Town of Swanton, Vermont

Downtown Scoping Study BP19(15)

# Swanton Scoping Study For Lake Street & Maquam Shore Road



## Introduction

The Town of Swanton, with support from the Federal Highway Administration (FHWA) and the Vermont Agency of Transportation (VTrans) Municipal Assistance Bureau (MAB), seeks to identify and evaluate alternatives to improve mobility for all users—motorists, pedestrians and bicyclists—along the Lake Street and Maquam Shore Road corridor. This scenic corridor extends from the intersection of Lake Street and South River Street, westward along Lake Street and continues south along Maquam Shore Road to the Swanton / St. Albans border. The Village of Swanton recently awarded a scoping study to VHB to identify possible multimodal safety and circulation improvements to its downtown core. That study area extends to South River Street which represents the eastern boundary of this study effort. These efforts suggest that the Town and Village plan to make great strides in improving alternative transportation infrastructure, while balancing the needs of all users in the area's transportation network.

The VHB team, comprised of transportation engineers, planners, landscape architects, and permitting specialists, is exceptionally qualified to collaborate with the Town of Swanton and local stakeholders to identify design alternatives and evaluate the feasibility of constructing a shared-use path and/or other complete street elements along the Lake Street and Maquam Shore Road corridor.

## Project Understanding and Approach

### Project Background & Understanding

The approximately 4.5 mile Lake Street and Maquam Shore Road corridor presents an exciting and unique opportunity for bicyclists, pedestrians, and motorists alike when traveling in the Town of Swanton. Whether it be by boat, car, bike or on foot, traveling along the shore of Lake Champlain is one of those truly special features of Vermont.

Lake Street and Maquam Shore Road function as an Alternate Route for the Champlain Bikeway. While the primary route travels along US Route 2 and through Grand Isle County, this corridor provides a crucial and scenic connection between St. Albans and Swanton for visiting and local bicyclists alike. Additionally, the intersection of Lake Street & South River Street (the eastern terminus of the study corridor) is a short distance from the planned start of the Lamoille Valley Rail Trail (LVRT) for which VHB has recently started the design. With the remainder of the LVRT slated for construction in 2021/2022, improvements along Lake Street and Maquam Shore Road have the potential to provide a more intuitive and safe connection for trail users to Lake Champlain, and Downtown Swanton.

The roadways within the project corridor are classified as Class II Town Highways / Minor Collectors and have estimated Annual Average Daily Traffic (AADT) between 800 vehicles (just north of Giroux Road), and 1,000 vehicles (just west of the Lake Street and South River Street intersection). Along the length of the corridor, Lake Street and Maquam Shore Road vary slightly in width between 22-24 feet of paved roadway, comprised of one travel-lane in



each direction with no striped shoulders. Except for a short length of sidewalk along Lake Street near the downtown core, the project corridor lacks any other accommodation for pedestrians or bicyclists.

In addition to the narrow, paved roadway, the right of way accommodates utilities and is fairly constrained in locations based on existing structures, topography, and ditching running nearly the full length of the corridor. Right of way, property lines, utility locations, topography, natural resources, historic properties, and archaeological resources along the corridor will all need to be carefully examined and documented as part of this scoping study. These constraints or potential impedances will have to be carefully considered in the development and evaluation of alternatives, including projections of cost for engineering, design, and construction to mitigate impacts.

**As stated in the Swanton Town and Village Municipal Plan, the primary goal for transportation in the Swanton area is:**

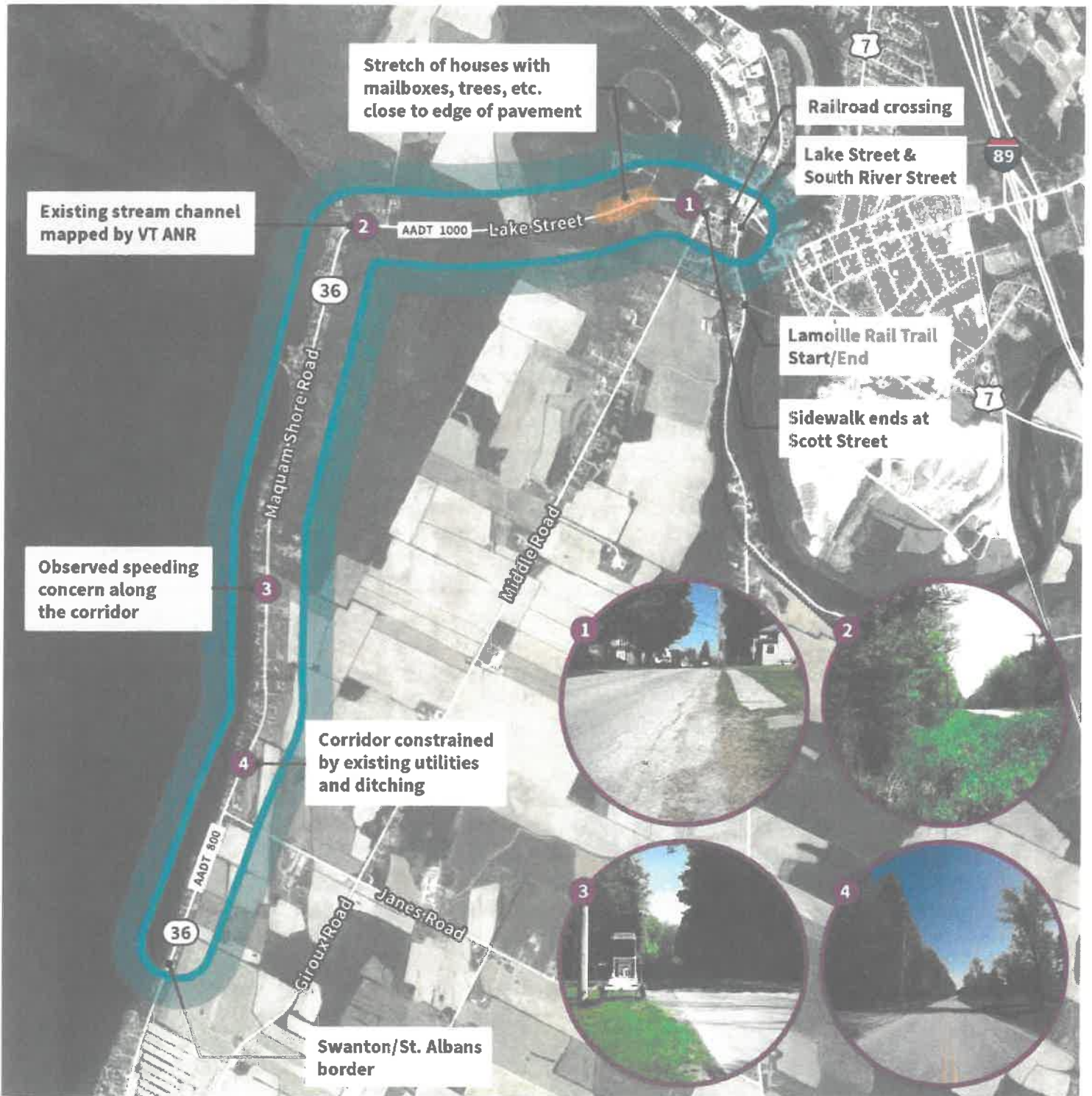
*“To provide a transportation system that offers convenient access to all parts of the Town and accommodates various types of travel (i.e., motor vehicles, bicycles, boats, and pedestrians).”*

During a recent site visit, a few residents along the corridor came out to speak to VHB staff members. Generally, there seemed to be support for the notion of calming traffic speeds along the corridor, as well as support for a shared-use path that would provide separation for bicyclists along Maquam Shore Road. Along with the vocalized support, concerns were raised over potential property impacts that would come with the design and construction of a shared-use path. VHB recognizes the need for a highly involved public engagement process on a scoping study such as this to identify various stakeholder viewpoints and help to build consensus around the projects or improvements to advance through the scoping process. The VHB team has the experience required to usher the project through such an engagement process by teaming with local stakeholders so the community is empowered to identify the purpose and need of the study, prioritize corridor alternatives to be evaluated, determine the evaluation criteria, and select the improvements to be carried forward and endorsed by the Town. In this challenging COVID-19 environment, VHB has been on the cutting edge of engagement tools to make sure that everyone—clients and the public is able to provide input. From preparation and dissemination of materials in advance of meetings, to online meetings with the ability to provide verbal or written comments, voting/polling, break-out sessions or even by calling in where a computer is not available, VHB is helping projects proceed with input from all stakeholders even when in person meetings are not possible.

The VHB team has extensive experience in evaluating multimodal mobility solutions, particularly when it comes to challenging corridors originally built with the sole purpose of accommodating motorists including Lakeshore Drive in Colchester, Falls Road in Shelburne, Pulp Mill Bridge Road in Weybridge, and East Darling Hill Road in Burke. VHB has conducted scoping studies for each of these corridors and engaged the stakeholders outlining the property, utility and drainage impacts associated with various alternatives. Each study resulted in recommendations that the community supported and are working toward constructing.

Our team has an intimate familiarity with the VTrans MAB process, and we understand the multimodal transportation challenges a corridor like Lake Street and Maquam Shore Road faces from a planning and engineering design perspective. This team is set up to help the Town and community prioritize balanced, creative and context sensitive solutions that align with the Town’s goals for convenient access and accommodation for all types of travel.

### Study Area



## Approach

Our approach to this project will include examining a range of corridor alternatives to meet the needs identified in the early stages of the project. The VHB team will guide a comprehensive public outreach process to make sure the findings and recommendations developed during the study reflect the broad consensus of the community. Our approach will be holistic in scope, including a comprehensive assessment of the overall project corridor, existing conditions, functionality, safety, minimization of impacts, and accessibility for all modes of travel.

VHB is well-suited to undertake this project for several reasons:

**We know how to work collaboratively with a variety of stakeholders and have done so successfully using technology and state-of-the-art tools:** From identifying project needs to providing a clear, concise analysis of alternatives, project success is about the effective communication of ideas and solutions. Our approach of integrating the vision, goals and needs of diverse agencies, the public, and stakeholders into the process has convinced us that this process is the key to a successful product embraced by the community. We are well versed in leveraging technology, especially to enable public outreach and engagement even when in person discussions may not be viable. Whether it is a formal public meeting entirely on a virtual platform, instant polling device deployment during public meetings, or administering online survey tools to gather input from various stakeholders and the public. We also understand that sometimes stakeholders do not have access to technology and can provide materials through the mail and provide call in numbers as required.

**We understand how to navigate and balance competing needs in constrained environments:** When the primary land use of a corridor is residential, outreach processes focus heavily on concerns over right-of-way. When working in an already constrained environment, these concerns are only exacerbated. Striking a balance between the potentially competing interests of property concerns from project neighbors and pursuing the community goals of the project is where VHB excels through our extensive project experience and talented team. The project team for this study will include local transportation engineers and planners with access to a wide range of skilled professionals including landscape architects, traffic engineers, environmental and historical preservation planners, and stormwater specialists who will work closely as a team towards addressing the full range of anticipated project needs.

**We know how to develop realistic, constructible recommendations:** A significant benefit of VHB's comprehensive and integrated services is the transportation planning staff are aware that planning-level recommendations need to be publicly supported and constructible. Our extensive local experience with complex projects through final design and construction provides us with a keen eye on constructability, reasonable cost estimates, potential permitting implications, and other potential "red flags" that may arise during the design phase. Our overlap in planning and design work and the everyday interaction of these staff provides a greater understanding of the interlocking elements that go into both planning and design projects.



Principal-in-Charge, Jenn Conley, engages with stakeholders during a local concerns meeting.

**We understand the importance of quality deliverables:** We have a thorough internal Quality Assurance protocol which confirms an independent set of eyes reviews and comments on major deliverables before they are transmitted to a client. At the onset of a project, a Quality Plan is developed to guide the project team to make sure high-quality deliverables throughout the life of the project. We find that this procedure minimizes errors and helps to deliver a quality set of plans and project designs.

**We'll use our extensive VTrans experience to lead the project through the MAB**

**Process:** We have extensive experience working with VTrans on transportation scoping studies – including significant experience with the VTrans MAB process for bicyclist and pedestrian improvements. VHB has led countless projects through the MAB process at VTrans. The Town will be able to rely on our team to advise them at every step along the way, and keep the project moving forward on schedule.

**Keep the Town informed through frequent communications:** Our Project Manager, Drew Gingras, understands the importance of frequent communication. He will provide routine updates to the Local Project Manager through phone calls, emails and bi-weekly updates. Drew will make sure the Town is apprised at every step of the way regarding VHB's progress on the project. In addition, the Principal in Charge, Jenn Conley, is also the Project Manager on the Village of Swanton Downtown Scoping Study as well as nearby projects including LVRT. This overlap will allow for more efficient communications on the two projects. The schedule included later in this proposal will be updated whenever appropriate to show the current project status, what has been accomplished to date, and what activities will be undertaken next.

## Scope of Work

Our approach to this project will incorporate a range of tactics to confirm that we solicit a broad range of stakeholder input on alternatives, present clear and insightful information to help the Town identify improvements that are acceptable to a wide range of stakeholders, accomplish the established purpose and need of the project, and produce a practical, constructible set of recommendations.

### Task A: Project Kick-Off Meeting

VHB will prepare for and attend a Project Kick-off Meeting with representatives from the Town of Swanton, VTrans, and local stakeholders identified by the Town to initiate the exchange of information between project team members and establish communication protocols, near-term schedules and action items. This meeting will also help establish a uniform understanding of project scope, relevant issues, and expectations. Based on recent COVID guidance, this meeting should be able to occur in person with appropriate safety practices, however, should the situation change, VHB has extensive experience with hosting virtual meetings and is prepared to host this meeting virtually.

We would suggest following the formal Kick-Off Meeting with a site walk with the Town, VTrans and local stakeholders to discuss specific issues or potential concerns along the corridor from an "on-the-ground" perspective. Based on our walk of the corridor during the preparation of this response, we would anticipate hearing from many stakeholders along the way.

Scope of Work

VHB will facilitate this meeting and take notes to document the discussions and distribute to project stakeholders.

**Deliverables:** Kick-off Meeting Agenda and Meeting Notes

### Task B: Compile Base Map/Document Existing Conditions

There is a lot of existing information available about the project area, including recent aerial mapping, traffic data, natural resources data, roadway right of way (ROW) information, and tax parcel mapping. VHB will compile this information and conduct field reconnaissance to assemble a comprehensive base map. During this task, VHB will complete the following tasks:

**Base Mapping.** VHB will compile detailed base mapping for the project corridor using available map data including Vermont digital orthophotos, digital parcel maps, and cultural and natural resource-based GIS data available from the Vermont Center for Geographic Information (VCGI). This data will be supplemented with information gathered during field investigations and from current VTrans Route Log information to include the following: presence of existing bicycle and pedestrian facilities, travel lane and shoulder widths, utility infrastructure, drainage features, topographic data, natural resources, right of way and parcel widths, roadway ownership, building locations, existing and proposed land uses, and other items as appropriate.

**Field Reconnaissance.** Existing conditions will be documented via field notes and photographs. We anticipate using existing orthophotographs and Light Detection and Ranging (LIDAR) topographic data, combined with field observations and measurements to develop the project base maps. In addition, the field reconnaissance will be important in verifying feature locations identified through information gathered from other resources.

**Traffic Data.** VHB will gather available traffic information such as the AADT data, bike and pedestrian counts, speed data, and crash data. The project team will review current travel patterns of bicyclists and pedestrians and evaluate how a new facility for these users will potentially alter and improve travel based on existing patterns.

**Existing Conditions Technical Memorandum.** Prepare a technical memorandum summarizing the items above.

**Deliverables:** Existing Conditions Technical Memorandum



## Task C. Local Concerns Public Meeting and Purpose and Need Statement

VHB will organize and moderate a local concerns meeting to introduce the project to the public and local stakeholders to identify existing issues and opportunities along the corridor. Following the project overview presentation, we anticipate breaking into smaller groups to brainstorm ideas with project team facilitators, if appropriate. These smaller groups will also include key discussions about anticipated path users, and what potential surface types and path widths should be considered when evaluating the design of a shared-use path.

As indicated above, based on current guidance, we would anticipate being able to host an in person meeting with appropriate safety procedures in place, however, in the event that is not possible, the VHB team has extensive experience facilitating virtual stakeholder engagement and public meetings and is prepared to leverage this experience to facilitate this initial public meeting virtually if necessary. VHB will work with the Town to help make sure that all stakeholders can access technology and if not, make accommodations by mailing materials etc.

Based on stakeholder input received at the public meeting, VHB will prepare a draft Purpose and Need Statement for review and comment by Town staff and VTrans.

**Deliverables:** Meeting Press Release and Flyer, Presentation and Meeting Materials, Meeting Notes, Draft Purpose and Need Statement

## Task D. Identify Land Use Context

VHB will identify the existing and proposed land uses along the corridor, as well as the overall context of the project area, and discuss any planned changes to land uses or permitted development within the area surrounding the project. Based on existing land use patterns and potential connections to projects, such as the Downtown Core improvements and the LVRT, VHB will document the existing and predicted pedestrian and bicyclist travel patterns to better understand the best possible location for new multimodal transportation infrastructure.

## Task E. Development of Conceptual Alternatives

Alternatives aimed to address safety and mobility concerns identified at the onset of the study will be developed using information obtained during the Kick-Off Meeting, site visit(s), recommendations from any previous studies or Town plans, traffic safety and crash data analysis, input from project stakeholders, and appropriate guidelines, specifications, and design standards.

The project team will evaluate up to three alternatives for the project focus area, with the assumption that at least one of these alternatives will include a shared-use path. VHB will evaluate each alternative along the corridor with a keen eye on how users will be accommodated on-road and off-road and how transitions between these facilities will be made. Additionally, VHB will be sure to assess each alternative against accessibility requirements stated in the Americans with Disabilities Act (ADA).



Alternatives determined to be viable will be further developed to produce conceptual plans which include key design features, typical sections, resource and ROW impacts, utility conflicts, natural and cultural\_ resource impacts, conceptual cost estimates, and potential phasing for project implementation. An evaluation matrix will be prepared, following the template in the VTrans MAB Local Projects Guidebook for Locally Managed Projects. This matrix will include measures for evaluating the various alternatives and will include, but not be limited to, construction costs, environmental and permitting impacts, compliance to the purpose and need statement, and other measures pertinent to the project.

VHB will submit these alternative concept plans to the Town and VTrans Project Manager for review and comment prior to the Alternatives Presentation meeting.

**Deliverables:** Conceptual Corridor Designs, Alternatives Evaluation Matrix, and Conceptual Cost Estimates for each alternative

### Task F. Identify Right of Way Issues

VHB will identify the existing right of way, any existing easements or restrictions along the corridor, and the approximate location of property boundaries along with owner's names based on available records supplied by the Town, as obtained in Task B. The existing right of way, property boundaries, and owner's names will be indicated on our base mapping. This will be used to identify any potential conflicts with private properties on the corridor. As indicated above, based on preliminary stakeholder input, we understand that although there is support for accommodating human powered modes in this corridor, there is a concern about property impacts that will need to be quantified and addressed for each alternative.

### Task G. Identify Utility Conflicts

VHB will identify public and private existing utilities located along the project corridor based on visual observations in the field, as obtained in Task B, and/or from other resources if available. This will include utility poles; drainage catch basins; manholes, valves and other observable surface features. VHB will perform a preliminary assessment of potential utility relocations as part of the evaluation of each alternative. This assessment will be sure to include the identification of property owners potentially impacted by any utility relocations.



Right of Way



Utilities

## Task H: Identify Natural and Cultural Resource Constraints and Permitting Requirements

VHB will review natural and cultural resource issues including wetlands, surface waters, floodplains, river corridors, lake shorelands, flora/fauna, endangered species, storm water, hazardous material sites, forest lands, historic architectural resources, and agricultural lands. This will be completed using the Vermont Agency of Natural Resources' Natural Resources Atlas as well as VCGI GIS mapping. VHB will identify potential impacts on these resources and permitting requirements, including the potential for review under Act 250. VHB will make every effort to incorporate green stormwater infrastructure into the alternatives.

Historical resources will be reviewed by VHB and archaeological resources will be reviewed by the University of Vermont Consulting Archaeology Program to determine potential impacts to those resources. Archaeological Resource and Historic Resource Assessments will be conducted to determine if any of the proposed project area may be archaeologically or historically sensitive. Our investigation will include a review of potential resources through online research of available records, previous assessments documented in other scoping, and a field review of the project area.

Because an alternative has not yet been selected, all natural and cultural resource work will include the areas in which the proposed alternatives will take place. Recommendations for the effects on these resources, along with anticipated permit requirements for each alternative, will be included in the alternatives evaluation matrix.

## Task I: Alternatives Presentation

VHB, with Town assistance, will organize, facilitate, and document an Alternatives Presentation Meeting to solicit public input on the alternatives developed for the corridor. The conceptual plans, estimated costs, and evaluation matrix will be presented to attendees for review and comment. The goal of this meeting will be to arrive at a consensus on a preferred alternative for the project corridor.

To enhance the reach of the alternatives review process, VHB can prepare an online survey that provides the public the opportunity to comment on and rank the various alternatives online. Surveys can also be printed and made available at public spaces such as the Town Office. In addition, if desired by the Town, VHB can come to the Alternatives Presentation equipped with real-time polling devices to gather on the spot input from the community attending the meeting. Following this public meeting, VHB will finalize the Purpose and Need Statement with public and Town stakeholder feedback.

VHB will develop a meeting flyer and press release for distribution by Town staff to all appropriate outlets prior to the meeting. VHB will prepare meeting notes following the public meeting to be distributed to the project team. In the event required, this meeting could also be held virtually using the tools outlined above.

**Deliverables:** Meeting Press Release and Flyer, Presentation and Meeting Materials, Meeting Notes, Final Purpose and Need Statement



## Task J: Preliminary Project Timeline and Cost Estimates

VHB will develop a preliminary project timeline and cost estimates for the preferred alternative. A preliminary timeline will forecast the project phases for design, permitting and construction of the preferred alternative. A preliminary cost estimate will consist of bid item quantities including estimated costs for construction, engineering, project management, and construction inspection. Developing the timeline for project phases and estimating costs in conjunction will provide a plausible projection for the implementation of the preferred alternative.

**Deliverables:** Formalized Project Timeline using Microsoft Project & Preliminary Cost Estimates

## Task K: Draft and Final Report Preparation

VHB will develop a Draft Scoping Report utilizing information gathered from the tasks performed in the scope of work above. The draft report will include a review of the existing conditions assessment, a summary of the public outreach process, the Purpose and Need Statement, an overview of the alternatives evaluation process, and a summary of the preferred alternative selected for the project area. Five bound copies of the Draft Scoping Study will be submitted to the Town and VTrans for review and comment.

VHB, in coordination with the Town, will organize, facilitate, and document a final public informational meeting to share and discuss the Draft Scoping Study and the findings and recommendations contained therein.

Based on Town and VTrans comments, as well as feedback received at the Final Public Informational Meeting, VHB will develop the Final Scoping Report. The Final Scoping Report will follow the format provided in Appendix A of the RFP and will include all elements contained in the outline. Five bound copies of the final report (and electronic files) will be distributed to the Town and VTrans staff at the completion of the project.

**Deliverables:** Draft Report (five bound copies), and One Electronic Copy Submitted to the VTrans Project Supervisor and the Swanton Selectboard | Final Public Informational, Presentation and Meeting Materials, Meeting Notes | Final Scoping Report (five bound copies), and One Electronic Copy Submitted to the VTrans Project Supervisor and the Swanton Selectboard