

# SCOPE OF WORK

**TO:** Jason Charest, PE, CCRPC

**FROM:** Jon Slason, PE and Corey Mack, PE

**DATE:** February 8, 2017

**SUBJECT:** Scope of Work: North Williston Road Multimodal Scoping Study

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RSG is pleased to submit this scope of work for a multimodal transportation plan for along North Williston Road in Williston, Vermont. We have developed this scope of work after reviewing the Project Application Form in the CCRPC FY2017 UPWP and meeting with CCRPC and Town of Williston staff on December 6, 2016.

## PROJECT BACKGROUND AND DESCRIPTION

The Town of Williston would like to conduct a multimodal transportation infrastructure scoping study along North Williston Road. As the only bridge over the Winooski River between Route 2A and US 2 at Exit 11, North Williston Road is a valuable crossing point over the Winooski River. With the Circumferential Highway discontinued, traffic volumes along the road are expected to grow and further strain the roadway. The crossing is also critical to bicyclists and pedestrians, providing one of few river crossings off the state highway system. The goal of this project is to identify the appropriate roadway cross sections, drainage and stormwater enhancements, and safety improvements to accommodate the increased demands associated with nearby land development, growth in commuter traffic, demands for growing bicycle and pedestrian traffic, and changing hydraulic conditions.

The geographic area of the study includes the four distinct roadway segments along North Williston Road: Village, Rural, Hollow, and Floodplain. In all four sections the road is approximately 24-foot wide.

The **Village** segment is between Williston Road (US Route 2) and Mountain View Road, characterized by denser development pattern, relatively level terrain, and an existing 6-foot asphalt path.

The **Rural** segment is between Mountain View Road and Peterson Lane, characterized by less dense development, relatively level terrain, and no existing bicycle or pedestrian infrastructure.

The **Hollow** segment is between Peterson Lane to Fay Lane, characterized by the relatively steep and winding descent from the rural plateau to the Winooski River floodplain. The upper portion of the Hollow is relatively undeveloped, with more houses towards the floodplain. The roadway appears relatively narrow, with significant drainage ditches on both sides and no bicycle or pedestrian infrastructure.

The **Floodplain** segment is between Fay Lane and the Winooski River and includes the North Williston neighborhood. The roadway crosses a railroad track; south of the railroad there is a small community of houses comprising the North Williston neighborhood, north of the railroad is primarily agricultural land to the Winooski River bridge. There are no dedicated bicycle or pedestrian facilities on this roadway segment.

Key assumptions and elements to be considered while developing the scope for this multimodal scoping study include:

- There have been numerous past studies at the individual intersections and adjacent roadways over the years. This study is meant to build on the past studies and present a comprehensive bicycle, pedestrian, and motor vehicle plan along the corridor.
- Recent traffic counts have been conducted at the three primary intersections, North Williston Road and: Williston Road; Mountain View Road; and River Road in Essex (VT-117). No additional traffic counts or data collection efforts will be needed.
- The Town will identify any substantial land use developments that may affect traffic volumes along the corridor, and the RPC will assist in identifying regional land use developments;
- Existing conditions and resource impacts will be developed from online information, GIS resources, LIDAR, VT Gas layout, historic maps, and state agency review if available; a surveyor, historian, or archaeologist will not be subcontracted.
- There will be three public meetings: a Local Concerns Meeting, Alternatives Presentation Meeting, and Final Presentation Meeting. All three public meetings will be jointly held with the Town Selectboard.
- There will be two internal Technical Team Meetings prior to submittal of draft technical memorandums for public review. The technical team will consist of staff from the RPC, Town Public Works Department, and RSG.
- Develop a consistent set of alternatives for each segment to provide bicycle, pedestrian, and roadway infrastructure along the corridor based on existing needs and deficiencies.
- Analyze safety conditions, to include a review of crash records and a field investigation including Intersection Sight Distance (ISD) as per AASHTO Green Book;
- Develop cost estimates for each set of alternatives and segments;
- Evaluate the relative merits of each alternative in meeting the project Purpose and Need and potential impacts on identified environmental and cultural resources; and
- Development of the final product scoping study.



## SCOPE OF WORK

### TASK 0 – Project Kick-Off and Ongoing Project Management

- a. This task includes time for general project management activities, project coordination, and client communication.
- b. RSG will develop and manage a Public Participation Action Plan (PPAP) which will identify key populations which will be important to engage with to ensure a wide degree of participation and minimize possible discrimination in the public evaluation of this project. The PPAP will be used to guide how the public is engaged through the scoping study.
- c. A Technical Group will be established to oversee, review and provide feedback during the course of the study. This group will include staff from the CCRPC and the Williston Public Works Department.
- d. RSG is anticipating 2 team meetings with the Technical Group, and three public meetings: a Local Concerns Meeting, an Alternatives Presentation Meeting, and Final Presentation Meeting. All public meetings will be coordinated and conducted with the Town's regularly scheduled Selectboard meetings.
- e. **Deliverable:** PPAP, Final scope of work.

### TASK 1 – Review Past Planning Studies

- a. RSG will assemble the seven known related transportation studies and review the documented existing conditions and resulting preferred alternatives.
- b. RSG will prepare a graphic representing the resulting information at each study intersection, documenting the preferred treatment at each study area, plus any identified critical resource impacts.
- c. **Deliverables:** Graphic compiling information and results from past studies.

### TASK 2 – Existing Conditions Assessment

- a. RSG will assemble the most recent traffic volumes available from the RPC, VTtrans Online Data System, and past studies; no additional counts or data collection efforts will be undertaken. RSG will adjust the volumes to 2017.
- b. RSG will prepare a WikiMapping base map and survey to electronically collect feedback on the bicycle, pedestrian, and vehicle travel conditions along the study corridor. The WikiMapping base map and survey will be open for a minimum of four weeks and at least two weeks beyond the Local Concerns Meeting. This platform gives a large audience the ability to participate and provide input into the process.
- c. RSG shall document existing resources from observable site features, online mapping resources, historic maps and reports, and past studies. Consideration will be given to:
  - Rights of Way
  - Utility Impacts
  - Natural and Cultural Resources:
    - i. Wetlands
    - ii. Lakes / Ponds / Streams / Rivers



- iii. Floodplains
- iv. Endangered Species
- v. Flora / Fauna
- vi. Stormwater & Drainage
- vii. Hazardous Wastes
- viii. Forest Lands
- ix. Public Lands
- x. Agricultural Lands

RSG shall use readily available information to identify archaeological sensitive and historical structures, but will not prepare an Archaeological Resource Assessment or Historic Structures and Properties Report.

- d. RSG shall conduct site visits to measure sight distances at critical locations, identify observable features, evaluate the existing drainage patterns and facilities, and generally experience the corridor from multiple traveler perspectives.
- e. RSG shall document existing reported crashes along the corridor, as available from the Online VTrans Crash Tool. RSG shall highlight high crash location intersections and segments, if present.
- f. The Town will identify known proposed and potential developments along and adjacent to the study corridor. The CCRPC will provide background vehicle growth estimates along the corridor. RSG shall synthesize prepare existing and future (2037) corridor volumes and recommend an appropriate roadway cross section to accommodate all users.
- g. RSG shall organize this information into a brief technical summary memorandum and maps, as appropriate.
- h. **Meeting:** Technical Group meeting
- i. **Deliverable:** Draft Technical Memorandum #1: Existing Conditions Analysis for Technical Group review and feedback.

### **TASK 3 – Local Concerns Meeting**

- a. RSG will coordinate a Local Concerns Meeting to document the local and regional interpretation of concerns regarding the study intersection. RSG will prepare a brief presentation to highlight key results of the existing conditions assessment, and residents, business owners, and local and regional officials will be given the opportunity express their experience with the intersection and project area. RSG will work with the Town and RPC in appropriately warning and publicizing the meeting, which will be held at a Town Selectboard meeting.

RSG will work with the Technical Group in developing a draft Purpose and Need Statement for discussion during the meeting.

Following this meeting, RSG will prepare meeting notes documenting the discussion and a Purpose and Need Statement to guide the direction and success criteria of the project.



- b. RSG shall develop a draft Purpose and Need Statement for the Local Concerns Meeting (LCM). Following feedback at the LCM and the online tool, RSG shall update and revise the Purpose and Need Statement for finalization.
- c. RSG shall close the WikiMapping online comment and survey tool two weeks following the Local Concerns meeting. RSG shall compile and condense the comments to inform the final Purpose and Need Statement, existing areas of concerns, and alternatives development process.
- d. RSG shall synthesize the comments received from the Technical Group, public meeting, and online tool into distinct issues. RSG shall prepare a list of initial alternatives to address the identified issues.
- e. RSG shall incorporate the Purpose and Need Statement, initial alternatives, and results of the meeting and online tool into a final version of the Tech Memo #1: Existing Conditions.
- f. **Meeting:** Local Concerns Meeting with CCRPC and Town staff. Town shall assist in coordinating meeting logistics.
- g. **Deliverable:** Local Concerns Meeting materials and notes; Purpose and Need Statement; List of Initial Alternatives; Final Tech Memo #1

#### **TASK 4 – Alternatives Analysis**

- a. RSG will prepare up to three build alternatives to address the issues identified in the Local Concerns Meeting, existing conditions analysis, WikiMapping Tool, and Tech Memo #1. The alternatives will be consistent between all project segments, but will be reviewed independently regarding resource impacts, costs, and ability to meet project goals and the Purpose and Need Statement. Alternatives may include immediately implementable options. Alternatives will be line drawings executed in AutoCAD over orthophotos and available online resource mapping, as appropriate, and typical sections. Possible alternatives may include:
  - i. No-Build;
  - ii. Separated, off-road path;
  - iii. Widened roadway and drainage features to accommodate traffic volumes; or
  - iv. Widened roadway to accommodate pedestrians and bicycles.
- b. RSG will develop planning level cost estimates based on construction quantities and unit prices when available; design fees, inspection fees, and other lump sum categories may be estimated as a percentage of other project costs.
- c. RSG will evaluate the performance of (up to) three alternatives plus no-build to the criteria developed in the Purpose and Need Statement, the impacts to resources identified in Task 2, traffic performance, storm water drainage enhancements, qualitative safety comparisons to pedestrians, bicyclists, and motorists, and estimated costs. Impacts and/or improvements to environmental conditions including drainage and stormwater will be identified. The alternatives will be compiled into one Alternative Evaluation Matrix.
- d. **Meeting:** Technical Group meeting



- e. **Deliverable:** Draft Technical Memorandum #2: Alternatives Analysis compiling, layout and typical section illustrations of the alternatives; planning level cost estimates; evaluation matrix.

#### **TASK 5 – Draft Alternatives Presentation Meeting**

- a. The alternatives developed in the previous task will be compiled into a public presentation. The Draft Alternatives Presentation Meeting will take place at the Town Offices during a regularly scheduled Selectboard meeting, at which time the project background existing conditions and Purpose and Need Statement will be briefly reviewed and the merits of each alternative will be discussed.  
The purpose of the meeting will be for the public to provide comments and feedback on the draft alternatives. There will be no more than three alternatives to receive feedback on (as per Task 4a). It's possible the Technical Group could have an idea of their recommended preferred alternative or indication as to where they are leaning at this time. However, a recommendation for a preferred alternative will be made at the Alternatives Presentation meeting (Task 7) that takes into account comments and feedback received from the public and Selectboard at the Draft Alternatives Presentation (Task 5).
- b. Based on input received at the meeting, RSG shall revise the draft alternatives or suite of treatments for application along the corridor. RSG shall update Tech Memo #2 to reflect the results of the Draft Alternatives Presentation Meeting.
- c. **Meeting:** Draft Alternatives Presentation Meeting as part of the Town's Selectboard agenda. Town shall assist in coordinating meeting logistics.
- d. **Deliverable:** Draft Alternative presentation slides, meeting materials and documentation for review by the Technical Group; Final Tech Memo #2.

#### **TASK 6 – Draft Scoping Report**

- a. RSG will develop a Draft Scoping Report that compiles the project background, existing conditions, alternatives development, public outreach, alternatives and the evaluation of alternatives completed in Task 6. The Draft Scoping Report will identify the pros and cons of specific options, include design and constructability, permitting process, impacts and based on the results of Task 6 a recommended alternative.
- b. **Deliverable:** Draft Scoping Report

#### **TASK 7 – Alternatives Presentation**

- a. RSG shall attend a Final Presentation Meeting to the Selectboard, documenting the Draft Scoping Report, implementation schedule, and next steps. RSG shall incorporate any final feedback into the final draft of the Scoping Report. The purpose of the meeting will be for the public to provide comments and feedback on the Draft Scoping Report and for the Selectboard to identify and select a locally preferred alternative.
- b. **Meeting:** Alternatives Presentation Meeting as part of the Town's Selectboard agenda. Town shall assist in coordinating meeting logistics.
- c. **Deliverable:** Alternative presentation slides



## TASK 8 – Final Scoping Report

- a. RSG will develop a Final Draft Scoping Report that incorporates the preferred alternative identified in Task 8 into the draft scoping report developed in Task 7. The final draft report will include additional information on implementation and project schedule.

The Final Draft Scoping Report will be submitted to the Technical Group for review and comment, followed by revisions. A Final Scoping Report will be prepared incorporating any last edits by the Technical Group.

- b. **Deliverable:** Final Draft Scoping Report; Final Scoping Report

### PROJECT STAFF

Jon Slason, PE will serve as Senior Advisor for the project. He will provide overall guidance and review and should be contacted with any questions or concerns about quality and progress of the work. Corey Mack, PE will serve as Project Manager, directing the technical work on the project and will be the primary contact for the client, with additional support from Roxanne Meuse. Corey will be your contact on details related to technical matters and, together with the other RSG staff, will complete the technical work on this project.

### TECHNICAL GROUP

A Technical Group will provide review of deliverables and meeting materials. The Technical Group will consist of members of the Williston Public Works Department, the CCRPC, and other local and regional staff as appropriate and identified by the CCRPC. The CCRPC will assemble the Technical Group.

### SCHEDULE

A full schedule is provided at the end of this document. Assuming the scope of work is accepted late-January, the Local Concerns Meeting is scheduled for late-February and the Alternatives Presentation Meeting is scheduled for mid-May. The project is expected to be completed by the end of July 2017.

### COST ESTIMATE

The cost estimate to complete the scope of work described above is \$50,513.32 entailing a labor effort of 529 hours. A person-hour task matrix is provided on the following page.



Staff Member	Jon Slason Senior Advisor	Corey Mack Lead Planner	Roxanne Meuse Project Planner	Total Task Hours	Total Task Cost
<b>Project Kickoff and Administration</b>				42	\$ 4,489.43
Kick Off Meeting / On-Going Management	1	12			
Public Participation Action Plan			8		
Develop / Refine Scope of Work	1	8			
Technical Group Meetings		4	8		
<b>Review Past Planning Studies</b>				24	\$ 2,223.83
Assemble Past Reports / Studies		2	4		
Review and Compile Results		6	12		
<b>Existing Conditions</b>				119	\$ 10,857.93
Assemble Traffic / Bike / Ped Volumes		2	8		
Prepare WikiMapping Database		2	8		
Document Existing Resources		8	32		
Site Visits and Follow Up		8	8		
Crash / ROW Review		3	8		
Estimate Future Corridor Traffic Volumes		2	4		
Draft Tech Memo #1	2	8	16		
<b>Local Concerns Meeting</b>				60	\$ 5,651.59
Prepare / Attend / Follow Up	2	8	16		
Compile WikiMapping Results		2	8		
Develop Purpose and Need		2	4		
Develop Initial Alternatives List		2	4		
Final Tech Memo #1	2	2	8		
<b>Alternatives Analysis</b>				128	\$ 12,151.63
Alternatives Development		20	40		
Develop Cost Estimate		2	8		
Prepare Evaluation Matrix		8	8		
Draft Tech Memo #2	2	16	24		
<b>Alternatives Presentation Meeting</b>				56	\$ 5,342.25
Prepare / Attend / Follow Up	2	8	16		
Refine Preferred Alternative		4	12		
Final Tech Memo #2	2	4	8		
<b>Scoping Report</b>				100	\$ 9,296.66
Develop Draft Report	2	16	32		
Prepare / Attend / Follow Up Final Meeting	1	8	16		
Revise and Submit Final Report	1	4	20		
<b>Total Labor Hours</b>	18	171	340	529	\$ 50,013.32
Direct Rate	\$47.73	\$40.23	\$25.23		
Overhead Rate	178.68%	178.65%	178.65%		
Fee	10%	10%	10%		
Total Loaded Rate	\$146.32	\$123.31	\$77.33		

Direct Expenses	RSG
Mileage	\$50.00
WikiMapping	\$350.00
Meeting Refreshments	\$100.00
Total	\$500.00

Total Labor - RSG	\$ 50,013.32
Total Direct Expenses	\$ 500.00
<b>Total Project Cost</b>	<b>\$ 50,513.32</b>

