Colchester / Riverside Avenue Scoping Proposal

December 15, 2015

Stantec

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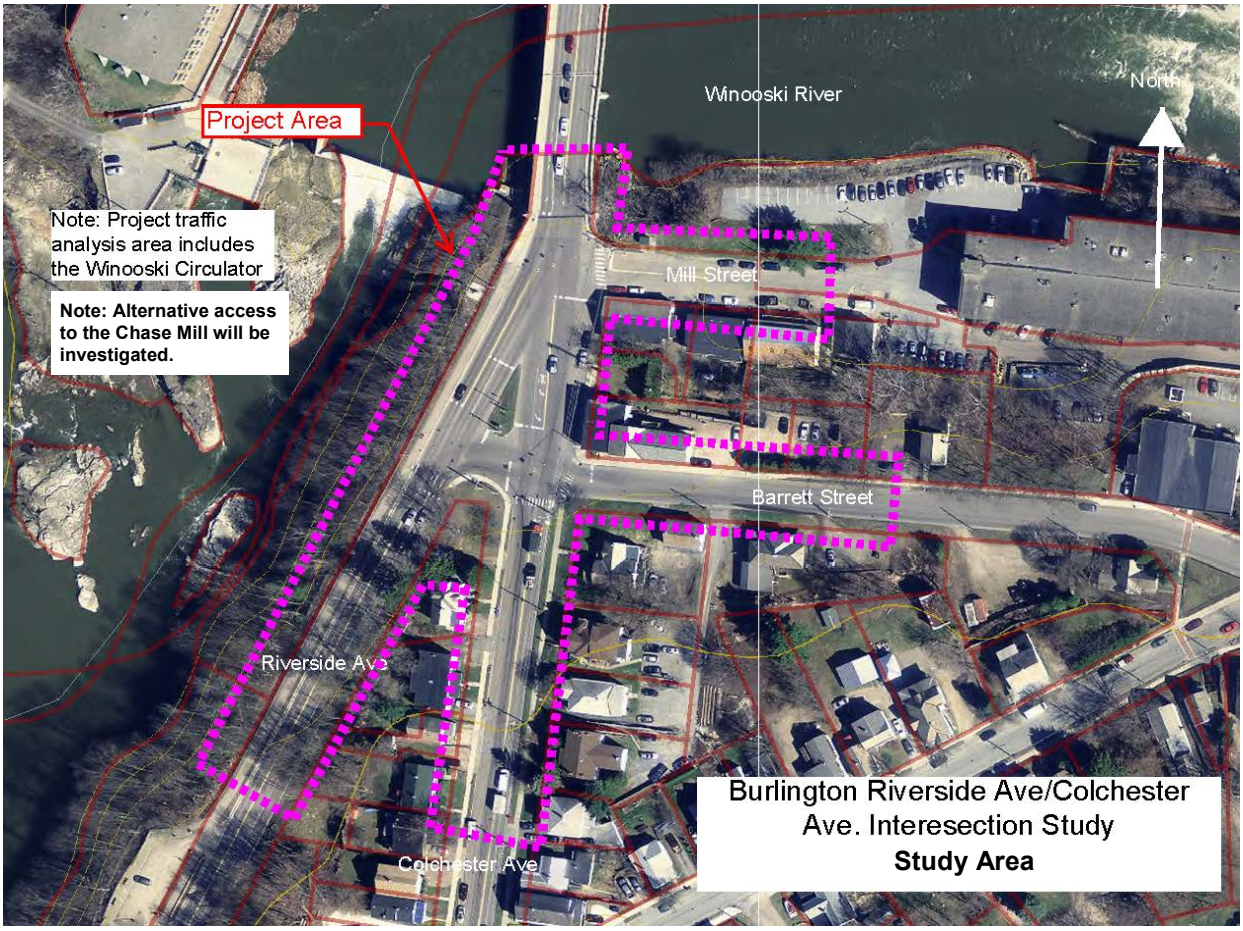
1 Project Description

The Colchester Avenue / Riverside Avenue / Barrett Street / Mill Street intersection is a component of the Colchester Avenue Corridor Plan that was identified as a potential stand-alone project that could be more readily implemented while contributing to the overall "Complete Street" vision of Colchester Avenue. The corridor plan identified issues and challenges of the intersection and recommended consolidating the intersection into one signalized intersection. To further evaluate and define this recommendation, as well as other potential alternatives, the City of Burlington has sought assistance from the CCRPC to complete a scoping process that will provide more detail and assist the City in selecting a "preferred alternative." Considerations will include the area's importance as the northern gateway to Burlington, scenic vistas to the Winooski River and the concurrent study of a bicyclist and pedestrian bridge over the Winooski River upstream/east of the existing bridge.



2 Study Area Scope and Approach

The following utilizes the standard scope provided by the CCRPC for scoping projects. Stantec has included additional detail to clarify the scope for this project.

A. Kick-Off Meeting

Scope: Stantec will meet with CCRPC, City of Burlington, and the Project Advisory Committee as developed by the CCRPC to discuss the project goals, objectives, process, timeliness and deliverables.

Approach/Assumptions: It is assumed one meeting is required and the CCRPC will schedule and host the meeting. Stantec will provide presentation materials and meeting notes.

Deliverables: Meeting agenda, presentation of existing information and meeting notes.

B. Compile Existing/Future Conditions Data & Develop a Base Map

Scope/Approach/Assumptions: Using the available high resolution orthophotos, Stantec will develop an existing conditions base map. The map will include available GIS layers as obtained from the City/CCRPC and VCGI. These may include tax parcels, environmental resources, stormwater, hazardous waste sites, and utilities. Infrastructure deficiencies will be identified. Stantec will indicate any planned developments that may affect the intersection as provided by the City and results of available corridor or master plans, and current zoning districts. Stantec will also solicit CCTA's plans for the area and indicate existing and/or proposed bus routes, facilities and stops. VTrans will provide Stantec the record plans from the Riverside Avenue construction project. Existing parking will be noted.

To assist in defining the alternatives and their impacts, Stantec will subcontract with Vermont Survey and Engineering (VSE) to provide field survey, a digital base map and digital terrain model for the project area. The bae map will include pertinent topographic items such as curb, trees, shrubs, sidewalk, driveways, utility poles, and street lights. Stantec will also research the existing highway ROW for Colchester Avenue, Riverside Avenue, Barrett Street, and Mill Street. The existing ROW will be shown on the base mapping (Task G). Stantec will contact the Burlington Public Works Department, BED, CWD, Fairpoint, Comcast, Level 3, Sovernet, Telnet, and Vermont Gas Systems requesting information on any of their existing facilities in the project area. Using the information provided, the general location of the existing facilities will be shown on the base mapping by VSE. It is assumed additional field survey to provide utility elevations, such as pipe inverts, will not be required at this time.

Stantec will collect the available turning movement count information from VTrans and/or the CCRPC and solicit from City of Burlington and Winooski planning department specifics on any proposed developments that may influence traffic volumes. Using this information, Stantec will adjust the traffic volumes and perform the existing conditions traffic analysis for 2016 and design year 2036 for the AM and PM peak periods. This is to be inclusive of all active modes of transportation (walk, bike, etc.). Stantec will also request crash data from VTrans, summarize the data, and highlight the predominating causes. It is assumed VTrans will provide a crash diagram.

Stantec will collect and review existing studies, city and regional plans and record drawings. Using the Vermont State Standards and Burlington Street Design Guidelines, Stantec will develop the project's design criteria.

Deliverables: Existing conditions map, digital survey base, digital terrain model, summary of traffic analysis.

C. Local Concerns Meeting

Scope: Stantec, working with Third Sector Associates, will organize and facilitate a local concerns meeting to hear the public's issues and concerns in order to develop a clear understanding of the purpose and need of the project. This meeting will be hosted by the CCRPC and the City of Burlington with local officials invited. This meeting may be an opportunity to discuss any future maintenance issues or concerns with the proposed project. As an outcome of the local concerns meeting and the project kickoff meeting, the consultant will develop the Project's Draft Purpose and Need Statement. The consultant will generate this statement based on local input and an understanding of existing conditions.

Approach/Assumptions: Stantec will develop a meeting agenda and a slide presentation in close coordination with the CCRPC Project Manager to facilitate the Local Concerns Meeting. The names and addresses of all people, including adjacent property owners, to be notified will be provided by the City and CCRPC. A direct mailing will be sent out and announcements will be posted via Front Porch Forum. The presentation will include an existing conditions plan illustrating collected information. This information will be reviewed with the Project Advisory Committee and edited for the Local Concerns Meeting. The presentation and agenda will include pertinent discussion items such as: existing traffic operations, safety, crash prone conditions, bicycles, pedestrians, etc. The goal is to facilitate an organized solicitation of concerns.

The Stantec team shall prepare minutes of the meetings and distribute them to the Project Advisory Committee and the CCRPC Project Manager. Comments received from anyone not present at the meetings such as ones received via the comment section on the project website, will be attached to the minutes of the meetings. The meeting minutes will focus on the comments received and required action items. Comments will be organized by topic for easy referencing.

Deliverables: Meeting agenda, slide presentation, and meeting minutes.

D. Purpose and Need

Following the Local Concerns meeting, Stantec will develop a draft Purpose and Need statement for this project. Stantec understands the importance of the Purpose and Need statement as it is used to identify and evaluate alternatives and assist with selecting a preferred alternative. Based on past experience with scoping projects, the needs portion typically points out existing issues revealed during the information collection and local concerns tasks. The Purpose and Need Statement will be distributed to the CCRPC Project Manager and the Project Advisory Committee for review and approval. It will be revised as necessary to obtain approval by the Project Advisory Committee. The Purpose and Need statement will be discussed at

subsequent meetings and throughout the scoping process. Any discussed edits will be included and an updated statement distributed.

Deliverables: Draft and revised Purpose and Need Statement.

E. Develop Conceptual Alternatives

Scope: In cooperation with City and CCRPC staff, the consultant will identify potential alternatives utilizing the information compiled for the base plan, and site visit. The consultant will develop typical sections for the different alternatives that show basic dimensions and, if applicable, where the facility is located within existing road rights of way and in relation to travel lanes, shoulders, existing building faces and other features.

Approach/Assumptions: To develop an accurate evaluation of impacts and costs, the alternatives will be developed using topographic field survey. This will be provided by Vermont Survey and Engineering. It is assumed the following four long term alternatives (in addition to the Do Nothing) will be developed and evaluated:

- Do Nothing (No-Build)
- Roundabout
- Realign Existing Intersection
- Variations of Realign Existing Intersection (assume 2)

Short term and interim improvements will also be considered, discussed and included in the scoping report.

Any widening of the roadway may create new impervious areas potentially requiring storm water treatment. Stantec will investigate the need for storm water treatment to address this. It is assumed the alternatives will be analyzed in Synchro with results reported for LOS, v/c, and queues. The potential for a reduction in lanes (from two to one) proceeding northbound over the bridge will be evaluated for its feasibility as part of the alternatives. This will be analyzed using VISSIM and will be built off the previously developed VISSIM model for the Winooski Circulator. The proposed improvements will be shown on available aerial photos and survey base mapping. Before and after visualizations of a street view for the alternatives will be developed and provided.

Once alternatives are analyzed and alternative sketches are developed, the Stantec team and Third Sector Associates in coordination with the CCRPC and the City will conduct a 2-hour public workshop to solicit ideas, issues, and concerns. After a brief presentation, the workshop will divide into groups that are facilitated by the Stantec Team, CCRPC and City staff as necessary. The group will review the potential alternatives, brainstorm on variations and derive what features, elements or improvements are most important to the group. Stantec team members will summarize results and consider the input to refine alternatives.

The alternative plans will include the following:

1. A traffic analysis for the design year that refines the proposed geometric improvements.

2. Plan sheets showing proposed improvements, streetscape and landscape conceptual design.
3. Existing Right-of-Way.
4. Potential stormwater treatment features such as landscaped "green" elements.
5. Conceptual cost estimate.

During development of the alternatives, it is assumed one meeting with the Project Advisory Committee will be required.

Deliverables: Agenda and meeting notes with Project Advisory Committee, traffic analysis of alternatives, draft and revised alternative plans, and conceptual cost estimate, workshop agenda, presentation and meeting notes.

F. Identify Natural and Cultural Resource Constraints and Permitting Requirements

Scope: Review natural and cultural resource issues including wetlands, surface waters, flora/fauna, endangered species, storm water, hazardous material sites, forest land, historic, archaeological and architectural resources, 4(f) and 6(f) public lands, and agricultural lands. Identify potential impacts on these resources and permitting requirements, including the potential for review under Act 250. When possible, documentation from appropriate state and federal agencies (e.g. Agency of Natural Resources, Department of Fish and Wildlife, Corps of Engineers) will be included to summarize the extent to which resources may or may not be impacted. The consultant will identify any permits that will likely be needed for the project.

Where a closed, subsurface drainage system is proposed (new or addition to existing), an estimate of new, redeveloped and existing contributing surface areas will be included as well as an assessment of what will be required to obtain a stormwater discharge permit. An estimate of the area of disturbance that will result from the project will be included to assess the extent of mitigation that will be required under the National Pollutant Discharge and Elimination of Sediment (erosion prevention and sediment control) permit.

Historic and Archaeological resources will be reviewed by qualified experts in those fields to determine potential impacts to those resources. For the Historic resources, a reconnaissance-level survey will be performed. For Archaeology, an "Archaeological Resources Assessment" which involves no excavations, will be performed to determine where and how much of a proposed project area has "archaeologically sensitive" land.

Approach/Assumptions: The area of identification will be limited to the area shown on the project location plan. The identification method for each resource is as follows:

- Wetlands: Field review, functional assessment and report.
- Archaeological and historic sites/districts: See proposal, Appendix C.
- Air & Water Quality: this task would typically assess the 10-year increase in the AADT and the report would note any additional steps needed to address air quality in the instance the 10-year increase in the AADT exceeds 10,000 vehicles as allowed per MOA with VANR. Given the nature of this project and declining traffic volumes, it is assumed this assessment is not applicable. Regarding adjacent

streams, their status of impairment will be noted for consideration for stormwater treatment.

- Noise Sensitive Land Uses: Existing residential and lodging facilities will be noted on the mapping. Given the nature of this project being an intersection improvement, it is assumed a noise analysis is not required.
- Fish and Wildlife Habitats: The results of research and field review will be shown on the mapping.
- Endangered / Threatened Species: The results of research and field review will be shown on the mapping.
- Community Character (local aesthetics): Any scenic views and valued aesthetics will be noted on the mapping.
- Socio-economic Characteristics: Local and regional plans will be reviewed and pertinent portions noted.
- Agricultural land: The results of research and field review will be shown on the mapping.
- LWCF lands (Section 6(f)): Stantec will review the latest listing posted on the relevant websites and any lands will be noted on the mapping.
- Public and Recreation Land (Section 4(f)): Based on field review and input from communities, these lands will be noted on the base mapping.

Deliverables: Results of field and research reviews to be incorporated into existing conditions.

G. Identify Right-of-way

Scope: Compile right-of-way and property ownership information along the alignment of the proposed project. This information should identify public/private ownership and any existing easements or restrictions (e.g. Act 250 permits) on affected property. Right-of-way information will be mapped on the same base mapping as the existing conditions.

Approach/Assumptions: Stantec will provide the existing highway right-of-way from their previous research. The City will provide the names of the property owners in the project area. Stantec will include this information on the plans.

Deliverables: Documentation of research and right-of-way for base map.

H. Identify Utility Conflicts

Scope: Identify and discuss all public and private underground and overhead utilities (water, sewer, fiber optics, electric, TV, cable, phone) in the project area. Include a preliminary assessment of whether any relocation will be required and indicate if the relocations may occur outside of the existing Rights of Way. For underground utilities, an assessment should be made of whether they will be impacted by construction of the proposed improvements. The assessment will include identification of owners of potentially impacted utilities.

Approach/Assumptions: Stantec will provide a project plan to area utility companies asking for what existing facilities or proposed expansion or relocation plans they have in the project area and request any location information and condition information they have. This information

along with the aerial line information will be shown on the plans. Impacts to existing facilities and potential mitigation will be depicted. Any utility improvements as recommended by the utility owner or as suggested by their existing condition capacity will be noted.

Deliverables: List of utility impacts.

I. Alternatives Evaluation

Scope: The proposed alternatives, including the no build alternative, will be evaluated and the results summarized in an alternatives matrix. The matrix will include transportation impacts (traffic, bike and pedestrian), resource impacts, right-of-way impacts, utility impacts, ability to meet the project purpose and need, estimated cost and any other factors that will help the community evaluate the alternatives being considered. The redesign/redevelopment of the intersection has the potential to improve the community character and this item will be part of the evaluation. The socio-economic impact or benefit of alternatives will be noted.

Approach/Assumptions: A draft will be developed and provided by Stantec to the Project Advisory Committee for review prior meeting with the Project Advisory Committee. Comments will be incorporated for the subsequent presentation to the City Council. The provided information will also include a draft scoping report describing the project, existing conditions, and alternatives.

Deliverables: Project Advisory Committee meeting. Project Advisory Committee recommendation on preferred alternative, evaluation matrix, draft scoping report, PowerPoint of alternatives.

J. Develop Preliminary Cost Estimates

Scope: The consultant will develop preliminary cost estimates for further planning, design, construction and maintenance cost of the project. Cost estimates shall include preliminary bid item quantities. Per foot or lump sum costs will not be an acceptable substitute. The long term alternatives estimates will be based on the assumption that the project will be constructed using a combination of Federal and local funding and will be managed by the local community. The long term alternatives cost estimates will include amounts for construction, engineering, municipal project management and construction inspection. For the short term/interim improvements that are identified, estimates will be provided assuming local funding will be used for their implementation.

Approach/Assumptions: Stantec will utilize the VTrans Estimator database and recent bid results to develop a cost estimate for the preferred alternative. Cost estimates prepared to compare alternatives will be order of magnitude estimates and will not be carried out to the same level of detail as the preferred alternative cost estimate. Cost estimates will be conducted in tandem with the Alternatives Evaluation and be presented to the Project Advisory Committee as part of the alternatives matrix at their meeting under Task I.

Deliverables: Cost estimates for alternatives.

K. Alternatives Presentations

Scope: City and CCRPC staff will present the alternatives considered and the Advisory Committee's preferred alternative to the Ward 1 NPA, Burlington Public Works Commission and the Transportation Energy & Utilities Commission (TEUC). It is assumed no additional Stantec

assistance will be needed for these presentations. Comments and feedback gathered will be conveyed to Stantec to be taken into consideration as appropriate and presented to the City Council at a regularly scheduled meeting. The presentation to the City Council will be conducted by Stantec. This will represent the third and final public meeting of the scoping process. The outcome of this meeting should be a locally preferred alternative selected by the City Council to move this project forward.

Approach/Assumptions: The alternatives presentation is planned to be in PowerPoint format.

Deliverables: Alternative presentation in PowerPoint format and meeting notes from alternatives presentation

L. Report Production

Scope: Using information gathered from the activities outlined above and from the meetings with the City and CCRPC, submit draft and final scoping reports outlining the findings of the study (see Standards and Deliverables for number required). The consultant shall follow the report format shown in Attachment A.

Approach/Assumptions: It is proposed the report sections be developed as the work is completed. For instance, the Existing Conditions sections and Proposed Alternatives section will be completed prior to the alternatives presentation meeting. This will allow a draft document to be used to update parties interested on the project status. It will also facilitate input on alternatives.

M. Project Team

The proposed Stantec Project Team includes:

Gregory Edwards, PE – Principal / Project Manager

Thad Luther, PE – Senior Engineer

David DeBaie, PE – Senior Traffic Engineer

Israel Maynard, PE – Project Engineer

Karl Richardson, PE – Project Engineer

Polly Harris, Environmental Specialist

Greenman Pederson Inc – Public Facilitation and Landscape Architecture

Hartgen Archeological Associates – Archeology and Historic

Third Sector Associates – Public Meetings and Public Information

Vermont Survey and Engineering – Survey, Base Mapping, and Utilities

3 TASK / LABOR ITEM / COST

The task labor hours estimate can be found on the following page.

4 Appendices

APPENDIX A – SCOPING REPORT OUTLINE

APPENDIX B – VERMONT SURVEY AND ENGINEERING

APPENDIX C – HARTGEN ARCHEOLOGICAL ASSOCIATES

APPENDIX D – THIRD SECTOR ASSOCIATES

APPENDIX E – GREENMAN PEDERSON INC

APPENDIX F - PROJECT SCHEDULE

APPENDIX A

Scoping Report Outline

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APPENDIX F

Project Schedule

Stantec Consulting Services Inc.
South Burlington, Vermont

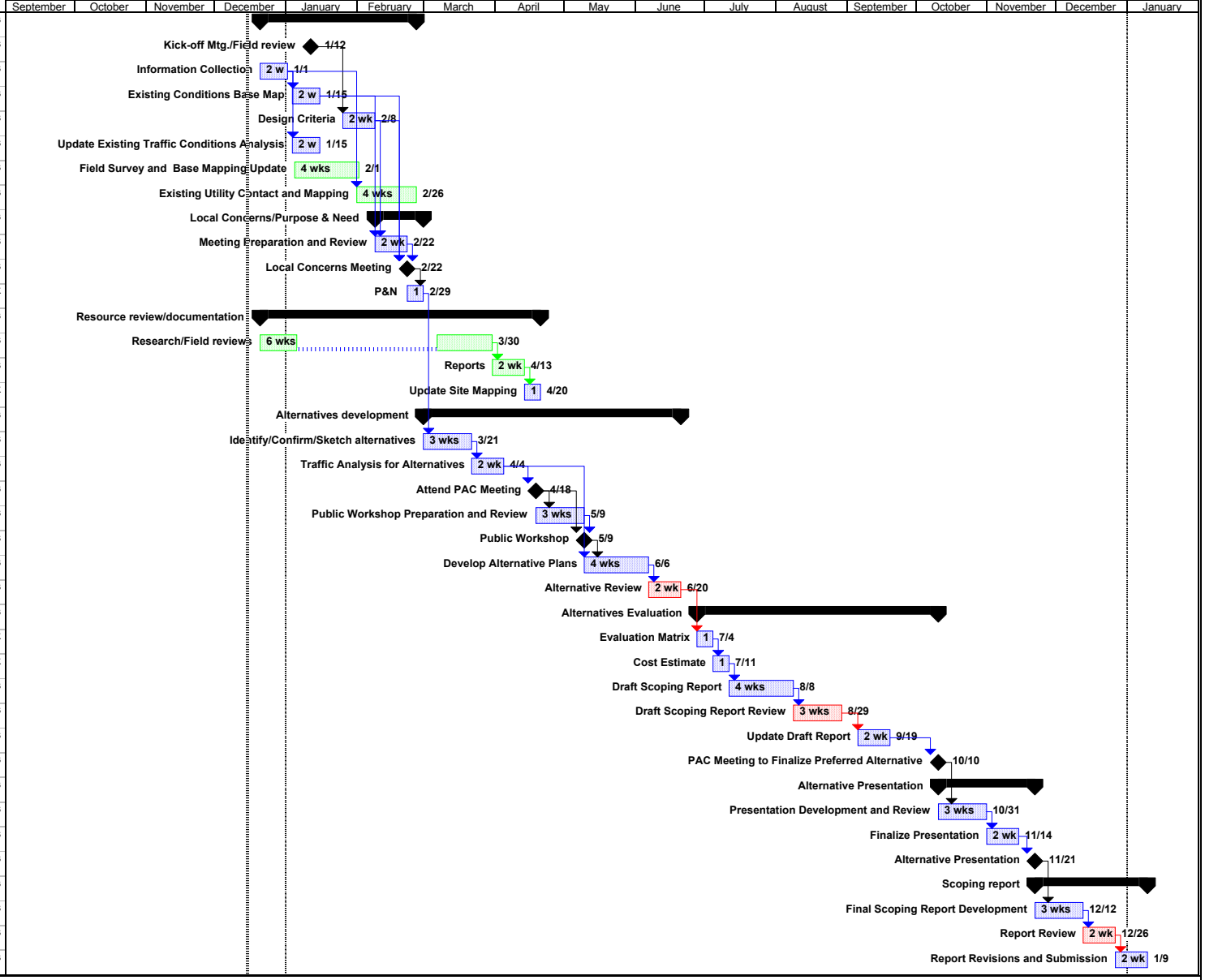
PROPOSED PROJECT SCHEDULE

Colchester Ave/Riverside Ave Scoping Study

Burlington, Vermont

Tue 12/15/15

ID	Task Name	Duration
1	**Information Collection**	**50 days**
2	Kick-off Mtg./Field review	0 days
3	Information Collection	2 wks
4	Existing Conditions Base Map	2 wks
5	Design Criteria	2 wks
6	Update Existing Traffic Conditions Analysis	2 wks
7	Field Survey and Base Mapping Update	4 wks
8	Existing Utility Contact and Mapping	4 wks
9	**Local Concerns/Purpose & Need**	**15 days**
10	Meeting Preparation and Review	2 wks
11	Local Concerns Meeting	0 days
12	P&N	1 wk
13	**Resource review/documentation**	**88 days**
14	Research/Field reviews	6 wks
15	Reports	2 wks
16	Update Site Mapping	1 wk
17	**Alternatives development**	**80 days**
18	Identify/Confirm/Sketch alternatives	3 wks
19	Traffic Analysis for Alternatives	2 wks
20	Attend PAC Meeting	0 days
21	Public Workshop Preparation and Review	3 wks
22	Public Workshop	0 days
23	Develop Alternative Plans	4 wks
24	Alternative Review	2 wks
25	**Alternatives Evaluation**	**75 days**
26	Evaluation Matrix	1 wk
27	Cost Estimate	1 wk
28	Draft Scoping Report	4 wks
29	Draft Scoping Report Review	3 wks
30	Update Draft Report	2 wks
31	PAC Meeting to Finalize Preferred Alternative	0 days
32	**Alternative Presentation**	**30 days**
33	Presentation Development and Review	3 wks
34	Finalize Presentation	2 wks
35	Alternative Presentation	0 days
36	**Scoping report**	**35 days**
37	Final Scoping Report Development	3 wks
38	Report Review	2 wks
39	Report Revisions and Submission	2 wks



Project: vaot gen'l servs
Date: Tue 12/15/15

Task	Milestone	Rolled Up Split	VAOT Task	Deadline
Split	Summary	Rolled Up Milestone	Project Summary	
Progress	Rolled Up Task	Rolled Up Progress	External Milestone	