

Battery Street Corridor Scoping Study – Scope of Work

Revision Date: February 6, 2023

Background

The Chittenden County Regional Planning Commission (CCRPC), in partnership with the City of Burlington Department of Public Works (City), is conducting a corridor scoping study of Battery Street between Maple Street and Sherman Street. Several key elements and guiding principles to be considered in this study include:

- Consideration for Street and Intersection design principles outlined in the [NACTO Urban Street Design Guide](#)
- Visions established in planBTV Downtown and Waterfront and in planBTV Walk Bike
- “Great Streets” design standards for Burlington
- Incorporation of Complete Streets principles
- Access management strategies
- On-street parking
- Safety improvements
- Connectivity

The Battery Street Corridor Scoping Study will identify improvements to support all modes of transportation, adjacent parks, adjacent businesses, stormwater, and enhance the street as a gateway between the downtown and waterfront districts. This study will include all signalized intersections along Battery Street and identify how improvements will align with the Railyard Enterprise Project and Great Streets Main Street Project. This corridor scoping study is a new effort that may span two fiscal years.

The study entails a formal scoping study with significant public outreach efforts. It will evaluate transportation conditions from a Complete Streets perspective, specifically considering how the street operates for the different user groups who can be expected to use the corridor (pedestrians, bicyclists, motorists, deliveries, transit, and emergency responders), and taking into account current and future land uses as described in planBTV Downtown and Waterfront. Of particular interest is better utilization of the City’s right-of-way along the corridor, improved streetscape, and amenities particularly in the downtown core, creating contiguous bicycle accommodation along the corridor, connections for bicyclists to the existing bicycle network nearby, opportunities for enhanced transit service, and development of concepts to reduce crashes and better accommodate traffic, pedestrian, and bicycle movements at major intersections.

The product of the study will be a preferred alternative for remaking Battery Street to accommodate all users. The plan will identify a set of improvements that could be implemented in the near-term for relatively low cost and longer-term projects that could make the corridor safer and more connected for all users.

Scope of Work

This scope of work follows the approach taken on the [North Avenue Corridor Study](#), [Colchester-Essex Network Transportation Study – CENTS](#), and [Winooski Avenue Corridor Study](#). However, this scoping study includes a fully scoped preferred alternative for Battery Street that that would be ready to move into preliminary engineering.

TASK 1: PROJECT MANAGEMENT

This task includes time for general project management activities, project coordination, client communication, and monthly project meetings.

Generally, all material (memoranda, PowerPoint presentations, evaluation matrices, etc.) should be sent to the CCRPC and DPW project managers for review and comment two weeks prior to distributing to the Advisory Committee or presented to the public.

Deliverables: Preparation of monthly progress reports detailing work accomplishments for the reporting period, budget status, schedule status, outstanding issues and action items, overview of upcoming work. Regularly scheduled project coordination meetings between the Consultant project manager, CCRPC, City and others as appropriate.

TASK 2: PUBLIC INVOLVEMENT PLAN

The Public Involvement Plan is designed in the spirit of the [CCRPC's Public Participation Plan](#) and [Burlington DPW's Public Engagement Plan](#).

The CCRPC's plan is predicated on an effective public involvement and outreach campaign that involves transportation stakeholders and the broader public early in the process, checks in with them frequently, and then supports an outreach effort to present the final plan. The intent of the public involvement effort is to further foster a spirit of inclusiveness and ownership of the study. To that end, efforts will be made to involve members of the public that may not have electronic access or the ability to attend public meetings. This is particularly noteworthy as the neighborhoods immediately north and east of Battery Street are home to some of Burlington's lowest-income residents.

The public involvement plan includes five primary elements:

1: Stakeholder Interviews early in the study process and as alternatives are developed. These will be designed to elicit perceptions of issues and concerns in the corridor from a user's point of view. The CCRPC and City of Burlington could assume most of the responsibility for the stakeholder interviews. VHB will support this effort by providing supporting materials.

2: Project Advisory Committee comprised of representatives of agencies and organizations identified by the City and the CCRPC. Advisory Committee meetings are expected to correspond to major project milestones. Key stakeholder groups not serving on the Advisory Committee will be contacted via targeted outreach and project information will be shared with them throughout the project. VHB will engage the Advisory Committee via a Kick-Off Meeting at the beginning of the project. Subsequent AC Meetings are outlined in the attached Project Schedule & Project Budget.

3: Website and Electronic/Print Media with study information and notices. The bulk of information exchange will occur via a project website, hosted by the CCRPC. The site will feature, at a minimum, project information including background reports, Advisory Committee information and meeting notes, public meeting notices and notes, and a link to send comments, questions, and concerns to the project team. VHB will provide website content and assist with the development and handling of a GIS Storymap to go along with the Project Website.

4: Public Meetings at key project milestones and in formats designed to efficiently convey project information and solicit public input. Standalone public meetings will include:

- Local Concerns meeting
- Draft Alternatives Presentation
- Presentation to City Council
- Up to 2 updates (total) to City bodies such as the Transportation, Energy, and Utilities Committee (TEUC) and Department of Public Works Commission
 - VHB will prepare to present the final recommended alternative for the Battery Street corridor the at either the TEUC or City Council meeting

We anticipate that at least one component of the Local Concerns Meeting and Draft Alternatives Presentation will include in-person engagement. VHB will prepare presentation materials for public meetings according to the pre-determined nature of the meeting – either in-person or remote.

5: Public Engagement to inform the community of public meetings and stakeholder interviews and to provide alternatives for meetings and interviews. Engagement needs to be sensitive to and accommodate the most common languages other than English along this corridor. [Burlington's Racial Equity Toolkit](#) shall be consulted. Potential public outreach ideas include:

- Consider multiple ways to alert the public that the project is starting and where to find additional information.
- Target businesses and business advocacy organizations, the public at large, traditionally underrepresented groups and their advocacy organizations.
- Engage the full range of residents, including newcomers, long-time residents, immigrants, seniors, young people, young families, people of all income levels, young leaders (teens and 20-somethings), business owners, and elected officials
- Use both traditional and non-traditional outreach tools such as:
 - Online surveys
 - Wiki map
 - Vary meeting structure as appropriate (pop-up meeting, corridor tour, workshop, small groups, open house, etc.)
 - Project update newsletter/e-news
 - Interactive texting/keypad polling
 - Postcards, fliers, door hangers
 - Online calendars
 - Front Porch Forum
 - Be clear on process and participant roles – not just at meetings, but throughout the project (who is doing what and how / when to influence decision making)

VHB will offer public engagement as outlined above and offers the follow additional detail:

- To communicate to the public that the project is starting, we will spread the word through existing email listservs and networks—reaching people through existing community touchpoints. In addition, VHB will attend community events, such as Neighborhood Planning Assemblies (NPA) Meetings for Ward 5 and Wards 2 and 3 to spread the word. To reach more residents and visitors, VHB will consider a table in the park on a day when weather permits and/or gather input at bus stops.
- Linguistically isolated communities constitute one of the traditionally underserved demographics that deserve consideration. For the purposes of this scope, VHB has assumed that CCRPC and the City will identify and interpret for these communities.
- VHB understands targeted meetings with specific populations may be required if the public engagement is not reaching these groups. We have included an allotment of time for targeted stakeholder meeting (also referred to as “Focus Group Meetings”) support for these populations.
 - VHB understands the CCRPC and City will organize and host these Focus Group Meetings. VHB will support these efforts by providing support materials as detailed in Task 10.

TASK 3: ADVISORY COMMITTEE KICK-OFF MEETING

VHB will convene the Advisory Committee to review the proposed scope of work, goals for the study, anticipated study outcomes, existing plans to reference, public engagement plan, and project schedule.

The Advisory Committee will include representatives from the following bodies/organizations:

- Green Mountain Transit
- Burlington Walk Bike Council
- Burlington Business Association
- Office of City Planning
- Parks Recreation & Waterfront
- City Councilors – two to three Councilors appointed by Council President
- One resident representative from each District in the corridor – appointed by each NPA Steering Committee
- Office of Racial Equity Inclusion & Belonging
- DPW Commissioner
- City Engineer or appointee

Other stakeholder groups contacted via targeted outreach and possibly invited to attend one of the Advisory Committee meetings, include: Emergency Services, CarShare Vermont, Vermont Department of Health, Chittenden Area Transportation Management Association (CATMA), CEDO, AARP, and others as appropriate.

Advisory Committee meetings may be remote or in-person.

Meetings: Advisory Committee Meeting #1 (Project Kick-off Meeting).

Deliverables: Kick-off / Advisory Committee Meeting materials.

TASK 4: ANALYZE EXISTING AND FUTURE CORRIDOR CONDITIONS

Collect Background Information and Develop Base Map

The Consultant will collect available relevant information from CCRPC, the City of Burlington, and VTrans for the purposes of developing a basemap for the project. Based on past assignments with the CCRPC, VHB assumes the CCRPC will prepare the GIS-based basemap for the project corridor. Such information to be shown in the basemap will include the following (as available):

- Relevant municipal, regional, and state transportation plans, projects, and studies (digital format when available) including:
 - planBTV Downtown & Waterfront
 - planBTV Walk Bike
 - 2011 Burlington Transportation Plan
 - CCRPC Active Transportation Plan
 - Great Streets Design Standards
 - Amtrak Connectivity Study (ongoing)
 - Others as needed
- GIS data, including layers depicting land use, parcels, transportation, environment and infrastructure data. Prepare a preliminary project base map and relevant background materials for use in the project kick-off meeting.
- Available aerial photography of the corridor.
- Most recent Average Annual Daily Traffic (AADT) volumes and available intersection turning movement counts (AM and PM peak hours) within the corridor. It is anticipated that new turning movement counts are needed along the corridor.
- Most recent VTrans High Crash Location report and related crash data (5-year period), including pedestrian and bicycle related crashes.
- Traffic signal timing plans at Maple Street, King Street, Main Street, College Street, Cherry Street, Pearl Street, and Sherman/Park Street.
- Information relating to planned and permitted developments in the corridor (or impacting the corridor) including:
 - Railyard Enterprise Project
 - Main Street Great Streets project
 - Burlington City Place
 - Champlain Parkway
 - Memorial Auditorium / Gateway Block
 - Others as needed
- Existing public transit services and supporting infrastructure.
- CarShare Vermont parking locations along the corridor.
- CCRPC will provide additional traffic data as necessary.

Corridor Inventory

The Consultant will conduct a field visit to complete data collection for existing corridor conditions, focusing on identifying the physical characteristics of the roadway. The inventory will supplement data

collected under Background Information, and will include elements such as documentation of roadway cross sections for different corridor segments including travel/vehicle lanes, intersection configuration and traffic control, bike facilities, parking, tree belts and sidewalks, bus stops, curb cuts and traffic control. Inconsistencies with current best practices for complete streets, context sensitive design, relevant Burlington Guidelines and Standards will be identified.

Existing and Future Conditions: Traffic Operations Analysis

The Consultant will evaluate existing traffic operations at key intersections during weekday AM and PM peak hours. Traffic operations will be evaluated using Synchro software. Intersection volume to capacity ratios, levels of service (LOS), delay and queuing will be reported. Factors contributing to operational issues will be identified.

The Consultant will gather information and traffic studies from the City's Planning and Zoning staff and Public Works regarding permitted and planned developments served by the Battery Street corridor. Future traffic volumes on the corridor will be estimated using growth factors that take into account potential changes in travel associated with anticipated development.

The Consultant will analyze existing and future network conditions and develop specific performance measures for the "No Build" conditions. Anticipated performance measures to be evaluated include corridor travel time and average speed, average delays, queuing, Level of Service at intersections, and bicycle and pedestrian network connectivity and Level of Stress.

VHB will utilize the VTrans Traffic Data Management System (TDMS) database for motor vehicle traffic information. Given the multimodal data is outdate, VHB will collect a new dataset for this data through the corridor to create an updated traffic volume network.

Identify Corridor Issues

The Consultant will compile a list of all corridor issues, identified through the evaluation of existing and future corridor conditions, that affect access, mobility and safety for a full range of corridor users, including motorists, pedestrians, transit users, and bicyclists of varying abilities. Feedback from various stakeholders, primarily gathered through interviews by CCRPC and City of Burlington staff, will also be included.

Deliverables: Prepare a summary of the existing and future conditions assessment including a list of identified issues to be reviewed with the Advisory Committee and included in the final report. Public Meeting #1 materials.

Meetings: Public Meeting #1 (Local Concerns Meeting) to present existing and future corridor conditions and collect public input about corridor issues. This will include additional public outreach efforts as outlined in Task 2; some of which could be assumed by the CCRPC and City of Burlington.

TASK 5: PURPOSE AND NEED STATEMENT

The Consultant will develop a draft purpose and need statement (based on the corridor vision from existing City plans) and specific goals for the study area based on the assessment of existing conditions, input from the Local Concerns Meeting and Advisory Committee Meeting #1.

Deliverable: Draft Purpose and Need Statement and specific goals for the study area.

Meetings: Advisory Meeting #2 to discuss existing and future conditions, corridor issues, and present the draft Purpose and Need Statement.

TASK 6: DRAFT ALTERNATIVES DEVELOPMENT AND EVALUATION

Draft Alternatives Development

The consultant will develop draft alternatives to address the issues identified through the existing and future conditions analyses and corridor issues identification and feedback received at Public Meeting #1. Alternatives could be line drawings executed in AutoCAD over orthophotos and available online resource mapping, as appropriate, and typical sections. Other graphic representations may be included. Burlington's Street Design Guidelines, Master Plans, the NACTO Design Guides, and other best practices resources for context sensitive design and complete streets will form a basis for these.

Draft alternatives will be reviewed first by the CCRPC and DPW project managers, and the revised alternatives will be presented to the public at Public Meeting #2/Draft Alternatives Presentation. Following interviews with stakeholders, the draft alternatives will be presented at Advisory Committee Meeting #3 along with summarized comments and feedback. Direction/consensus will be sought to refine the draft alternatives. Battery Street's intersections with Main and Maple Streets are being addressed via ongoing City studies and their alternatives will be incorporated into this effort. Alternatives needed as part of this effort and the level to which they should be evaluated are as follows:

- Two scoping alternatives for the entire corridor
- Up to three scoping alternatives for the intersections of:
 - Battery St/Pearl St/Park St
 - Battery St/College St
- Up to three feasibility alternatives for the intersections of:
 - Park St/Sherman St
 - Park St/Monroe St
 - Battery St/King St
 - Battery St/Cherry St

Alternatives Evaluation

Alternatives will be evaluated based on (but not limited to) the following: the degree to which they meet Purpose and Need, level of stress and safety of bike and pedestrian improvements, traffic and safety performance, parking and right-of-way impacts, cultural and environmental resource impacts, stormwater treatment, permit requirements, transit accessibility, and planning-level cost estimates. An evaluation matrix for each scoping facility will be developed documenting benefits and impacts for each alternative.

Evaluation Matrices and other relevant material will be reviewed first by the CCRPC and DPW project managers and the revised matrices and other material will be presented to the Advisory Committee for comment prior to public meeting.

Public Participation

CCRPC and City of Burlington staff will conduct follow-up interviews with stakeholders throughout the corridor to share the suite of alternatives and solicit feedback.

The Consultant will prepare for and host Public Meeting #2 which will (probably) be in the form of an open house to solicit input from the public on the draft Purpose and Need and draft alternatives.

Meetings: Public Meeting #2 to solicit input from the public on the draft Purpose and Need Statement and draft alternatives. Advisory Committee Meeting #3 to review input from outreach and comment on the draft alternatives.

Deliverables: Draft Alternatives as defined above, Advisory Committee Meeting #3 materials, Public Meeting #2 (Draft Alternatives Presentation) materials, and stakeholder interview materials and notes.

TASK 7: ALTERNATIVE REFINEMENT AND RECOMMENDATION OF PREFERRED ALTERNATIVE

Based on the alternatives evaluation and input from the Advisory Committee and public, the Consultant will work with the CCRPC and DPW project managers to refine the alternatives for the Battery Street corridor. The consultant will then present the refined alternatives to the Advisory Committee for their consideration in recommending a preferred alternative. This may include refining one of the alternative concepts.

Possible pilot projects will also be discussed under this task. Any work for a recommended Pilot Project will require a separate scope and contract.

Meetings: Advisory Committee Meeting #4 to present the refined alternatives for consideration in recommending a preferred alternative.

Deliverables: Advisory Committee Meeting #4 materials, refinements to project alternatives, and formal selection of the preferred alternative.

TASK 8: DRAFT REPORT AND IMPLEMENTATION PLAN

The draft report will include an implementation plan that summarizes the recommended alternatives for specific segments as well as corridor-wide improvements. Consider a map-based implementation plan and graphic depiction that includes:

- Description of each recommended element or action
- Identification of related or connected actions
- Impacts on corridor user safety
- Implementation time-frame (immediate, near-term or longer-term)
- Order of magnitude costs
- Potential funding sources
- Lead and partner agencies
- Next steps

Meetings: TEUC, City Council (Open to public) to seek endorsement of recommended alternative(s).

Deliverable: Draft Report and Implementation Plan

TASK 9: FINAL REPORT AND IMPLEMENTATION PLAN

The final report will be refined based on City Council resolutions, and will summarize the entire study process, including existing conditions, options considered, recommended alternatives, public participation, and incorporate the corridor-wide implementation plan.

Deliverables: A digital version of the Final Report in Microsoft Word and PDF format. Five (5) printed copies of the Final Report. All electronic files (GIS, Synchro, AutoCAD, presentation documents, meeting handouts, minutes, agendas, etc.) and all data gathered as part of this study.

TASK 10: FOCUS GROUP MEETINGS – SUPPORTING MATERIALS

VHB will provide necessary supporting materials for focus group meetings, as requested by the CCRPC and City. It is expected that most materials will be used / re-used at the individual focus group meetings.

Deliverables: Focus group meeting supporting materials.

COST PROPOSAL - VHB LABOR SUMMARY



Chittenden County Regional Planning Commission Battery Street Corridor Scoping Study

LABOR BUDGET

TASK DESCRIPTION	Technical Advisor	Project Manager	Senior Planner/ Stakeholder Engagement	Planner / Stakeholder Engagement	Transportation Engineer	Project Planner/ Engineer	Stormwater Engineer	GIS Specialist	Total Hours	Total Labor Costs
Task 1 Project Management									-	-
Attendance at Monthly Project Meetings (incl Kick-Off)	12	24	12		12				60	\$ 9,067
General Project Management and Preparation / Distribution of Progress Reports		18							18	\$ 2,661
Task 2 Public Involvement Plan (Some involvement, including meetings, is described in Tasks below)									-	-
Develop Public Involvement Plan		2	6	8					16	\$ 1,701
Stakeholder Interview Material Support		2	6	6					14	\$ 1,537
Preparation of Website Content		2	4	16					22	\$ 2,105
Community Events		2	8	8					18	\$ 1,951
Targeted Population Outreach Meeting Support, Including Development of Supporting Materials		2	8	10					20	\$ 2,115
Community Outreach (e.g. FPF blurbs, printed and digital flyers, etc.)		2	8	12					22	\$ 2,278
Task 3 Advisory Committee Kick-Off Meeting									-	-
Advisory Committee Organization & Coordination		4	4	4					12	\$ 1,419
Prepare for / Attend Kick-Off/Site Walk/AC Meeting #1	4	8	8		4				24	\$ 3,523
Task 4 Analyze Existing & Future Corridor Conditions									-	-
Collect Background Information & Develop Base Map		2			16	4		4	26	\$ 2,773
Corridor Inventory				8	8				16	\$ 1,424
Existing & Future Conditions: Traffic Operations Analysis			4		24				28	\$ 2,810
Identify Corridor Issues	2	2	4		8				16	\$ 2,043
Summary of Existing & Future Conditions Assessment		2	4	8	8				22	\$ 2,220
Public Meeting # 1 - Local Concerns Meeting (Materials & Attendance)	2	4	8	16	8				38	\$ 4,148
Task 5 Purpose & Need Statement & AC Meeting #2									-	-
Draft Purpose & Need Statement		1	1						2	\$ 273
Advisory Committee Meeting #2 (Materials & Attendance)	1	4	4	4	4				17	\$ 2,043
Task 6 Draft Alternatives Development & Evaluation									-	-
Draft Alternatives Development	4	12	8		64	8	8		104	\$ 11,897
Alternatives Evaluation		6	2	8	16				32	\$ 3,331
Public Meeting #2 - Alternatives Presentation (Materials & Attendance)	1	8	8	16	8				41	\$ 4,501
Advisory Committee Meeting #3 (Materials & Attendance)		4	4	4	4				16	\$ 1,804
Task 7 Alternative Refinement & Recommendation of Preferred Alternative									-	-
Refinement of Alternatives	2	8	2		28	4	4		48	\$ 5,609
Advisory Committee Meeting #4 (Materials & Attendance)		4	4	4	4				16	\$ 1,804
Task 8 Draft Scoping Report, Implementation Plan, TEUC and CC Meetings									-	-
Refinement of Preferred Alternative		2	2		12	2	2		20	\$ 2,203
Draft Scoping Report Development	2	8	8	16	40		4		78	\$ 8,285
TEUC Meetings (2) (Materials & Attendance)		12		6	6				24	\$ 2,842
City Council Meeting (1) (Materials & Attendance)		8		4	4				16	\$ 1,895
Targeted Outreach of Preferred Alternative		4	4		4				12	\$ 1,477
Task 9 Final Report & Implementation Plan									-	-
Final Report Refinement (based on City Council resolutions)		4	4	4	8				20	\$ 2,189
Task 10 Focus Group Meetings - Supporting Materials									-	-
Provide Supporting Materials for Focus Group Meetings		6	32	62					100	\$ 9,963
TOTAL HOURS:	30	167	167	224	290	18	18	4	918	
DIRECT HOURLY RATES:	\$ 81.04	\$ 50.23	\$ 42.52	\$ 27.79	\$ 32.69	\$ 45.68	\$ 39.67	\$ 33.97		
OVERHEAD:	\$ 135.79	\$ 84.17	\$ 71.25	\$ 46.56	\$ 54.78	\$ 76.54	\$ 66.47	\$ 56.92		
PROFIT (10%):	\$ 21.68	\$ 13.44	\$ 11.38	\$ 7.44	\$ 8.75	\$ 12.22	\$ 10.61	\$ 9.09		
TOTAL LABOR COSTS :	\$ 7,155	\$ 24,689	\$ 20,900	\$ 18,321	\$ 27,904	\$ 2,420	\$ 2,102	\$ 400		\$ 103,891

Total Labor Costs **\$ 103,891**

Total Expenses \$5,924

PROJECT TOTAL: **\$ 109,815**

Project Schedule



Legend

- ◆ Monthly Planning Meetings
- ★ Creation of Public Involvement Plan
- Advisory Committee Meetings
- ▣ Multimodal Traffic Counts
- Public Meetings
- TEUC/City Council Meetings