



August 21, 2017

Ms. Siobhan Witherbee  
Active Transportation Planner  
Halifax Regional Municipality

[Via Email: withers@halifax.ca]

**RE: Proposal to Provide Consulting Services: Implementation Plan for Halifax Urban Greenway Halifax, NS**

Dear Ms. Witherbee:

We are responding to your RFP letter of July 27, 2017 seeking consulting services for completion of a study reviewing alignment options, preliminary design and an implementation plan for sections of a multi-use AT facility extending the Halifax Urban Greenway from the Chain of Lakes Trail to Point Pleasant Park on the western side of the Halifax peninsula. This letter demonstrates our project understanding and outlines our consultant team, proposed approach and associated budget for the project.

**BACKGROUND:** As part of ongoing efforts to create a robust, connected AT network in Peninsular Halifax, HRM is currently reviewing options for a north-south AT connection on the west side of the peninsula between the Chain of Lakes AT Greenway (COLT) – a key link in HRM’s AT network – and Point Pleasant Park on the southern tip of the peninsula. The connection would provide AT access to the entire west side of the peninsula, including key destinations such as the Halifax Shopping Centre, Dalhousie University and Saint Mary’s University, for AT users of “All Ages and Abilities (AAA)”.

The Region’s AT Plan<sup>1</sup> has envisioned this connection as primarily an AT Greenway along the top of the CN Rail Cut, which extends north-west through approximately the entire Study Area. The Halifax Urban Greenway Association (HUGA), a community group committed to creating this AT connection along the Rail Cut, has a similar vision for the facility and have played an active role in creating two alignment concept studies over the past 15 years. An alignment composed entirely of Greenway facilities from Chebucto Road to Point Pleasant Park was proposed in a report by Gordon Ratcliffe Landscape Architects in 2002<sup>2</sup>, but several land acquisition challenges and needs for expensive infrastructure such as bridges were presented. HRM staff completed alternate alignment options including other AT facilities including Local Street Bikeways in 2002<sup>3</sup> that addressed some previously identified concerns and expanded the Study Area up to a COLT extension along Bayers Road from Joseph Howe Drive.

The alignment under consideration has been separated into five sections (See Figure 1). A summary of alignment options, opportunities, constraints and future needs previously identified for each segment are described below.

1. **Point Pleasant Park to existing Greenway on Beaufort Avenue:** Past plans have envisioned a Greenway alongside the Rail Cut connecting to Point Pleasant Park via a bridge overpassing the Rail Cut and a Local Street Bikeway on the west side of Francklyn Street. Complications with this alignment include land acquisition from CN Rail and St. Mary’s University as well as the expense of constructing a new bridge. An alternate alignment that crosses the Rail Cut at the existing Marlborough Woods Bridge and continues the Greenway on the West side has also been considered but was not identified as the preferred option for this connection in the *2002 Halifax Urban Greenway Proposal*.
2. **Existing Halifax Urban Greenway on Beaufort Avenue (Complete):** HRM, in partnership with HUGA, completed a 1km section of the Greenway along Beaufort Avenue from South Street to Bellevue Avenue in 2010.

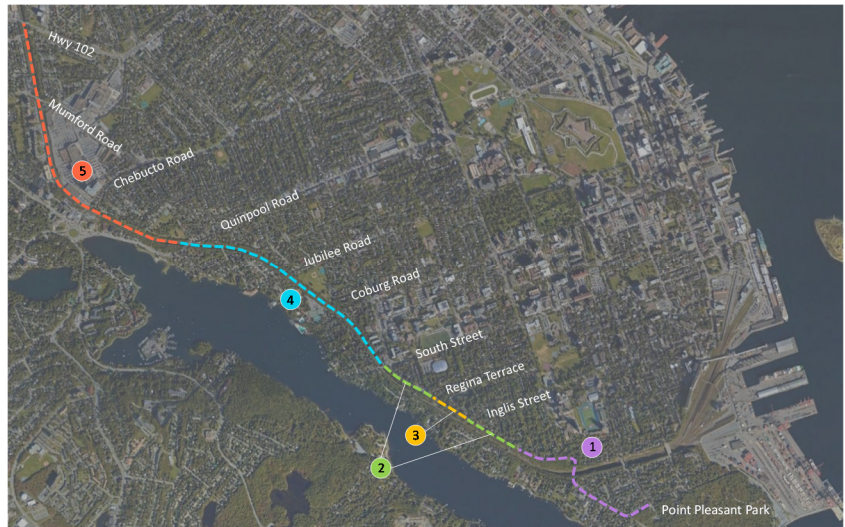
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<sup>1</sup> *Making Connections: 2014-2019 Halifax Active Transportation Priorities Plan* (HRM, 2014)

<sup>2</sup> *Halifax Urban Greenway Proposal* (Halifax Urban Greenway Association & Gordon Ratcliffe Landscape Architects, 2002)

<sup>3</sup> *Halifax Urban Greenway Plan for a Mix of AT Greenway and Local Street Bikeway Facilities* (HRM, 2015)

3. **Existing Halifax Urban Greenway on Beaufort Avenue (Narrow Section):** A 130m section of the existing Greenway between Inglis Street and Regina Terrace was constructed at a sub-standard width to avoid encroaching on CN land. Modification options for this section should be re-visited to ensure it meets AT facility guidelines.
4. **South Street to Quinpool Road:** Connecting the existing Greenway from South Street to Quinpool Road is the main focus of this study. Previous studies have found that this section has good potential for trail development along the Rail Cut, with some minor property acquisition and slope concerns.
5. **Quinpool Road to COLT at Joseph Howe Drive:** This section presents many challenges along the Rail Cut including rough terrain, steep slopes and crossing major streets (Chebucto Road, Quinpool Road and Mumford Road).



**Figure 1 – Study Area**

Alternate connection solutions including Local Street Bikeways and AT overpass/underpass options have been considered in the past.

The AT Connection Study includes an analysis of the site, review of previously identified alignment and facility options, conceptual development of alternate options, and evaluation / assessment of each option based on strengths, weaknesses, and costs. The final deliverables for the project will include 30% preliminary design drawings with Class “C” cost estimates for the Quinpool Road-South Street section, and a report summarizing the analysis including a phasing plan for design and implementation of the remaining sections.

This assignment requires the ability to develop creative solutions to this connectivity gap while providing realistic analysis of the advantages and disadvantages – and ultimately feasibility – of each potential option. There are several criteria that will be important to consider in evaluating the strengths and weaknesses of each option including connectivity, directness, user comfort, safety, and cost. Equally important will be consideration of each potential option’s fit with HRM’s AT planning objectives, particularly with respect to connectivity to future AT facilities and adjacent neighborhoods in the Study Area.

There are several challenges that will constrain opportunities for connection. Examples include:

- **Traffic Volume / Speed:** The alignment crosses several streets with heavy traffic volumes, turning movements and higher speed.
- **Grades:** Grades along the rail cut have previously been identified as a significant constraint to aligning the Greenway alongside several sections of the Rail Cut. The high cost of re-grading these sections and potentially rock breaking to widen space along railway, will require consideration of alternate route options, which may impact the directness of the route. Maximum acceptable grades are typically in the 5% to 8% range for AT facilities.
- **ROW Limitations and Property Acquisition:** Trail development will be confined to the CN Rail corridor ROW and HRM land where possible. However, several locations where adequate Greenway width is not available have been identified in previous route location reviews. Options such as alternate routes or the acquisition of adjacent properties have been considered in the past and will be further evaluated under this review.
- **Connectivity / Consistency:** Given that there will likely be multiple AT facility types (AT Greenway, local street bikeway), it will be important to consider how they connect and form as seamless a connection as possible. Also, there are major challenges for connecting to Rail Cut from streets due to the large elevation differences. Switchback retaining walls may be required.
- **Safety:** Separation between the Greenway and the rail tracks will pose as another challenge.



## Proposal to Provide Consulting Services Implementation Plan for Halifax Urban Greenway, Halifax, NS

**PROJECT TEAM:** Our project team has extensive experience and expertise in active transportation (AT) focused projects. We have completed numerous projects in recent years that have involved the planning and design of AT facilities. We have strong experience in the technical aspects of this project, and are very familiar with the Study Area and objectives for this project. Key team members are described below.

Greg O'Brien, P.Eng. – will serve as Project Manager and Senior Advisor for this assignment, providing technical lead and strategic guidance, maintaining internal quality control, and being available for client liaison as required. Greg has served in similar roles for several AT planning & design projects in recent years, utilizing his more than 18 years of experience in traffic engineering and transportation planning to contribute to the development of innovative solutions with the project team. Greg is very familiar with the Study Area and the opportunities and constraints that it presents for AT.

Carly MacEacheron, EIT – will assist by leading the technical aspects of this assignment. She will perform the site analysis, review alignment options, assist with the preparation of preliminary design drawings, and organize consultations with key project stakeholders and the public. Carly has participated in dozens of AT planning & design projects with the WSP team over the past two years, ranging from on-street facility to separated facility and trail projects. She has been a key team member in projects such as the Forest Hills Parkway Planning and Design Study (2016-2017) and the COLT to Halifax Peninsula Connection Study (2016).

Philip Nickerson, P.Eng. – will lead the design-related tasks including preparation of base plans, review of design constraints (grades, infrastructure conflicts, etc.), and preparation of preliminary design drawings and cost estimates. Philip has nine years of experience in the design of municipal and transportation infrastructure, residential subdivisions, commercial development, and hydraulic modeling. In recent years Phil has been a key team member on several AT-focused design projects including the South Park Street bike lanes (2016-17), Chain of Lakes Trail Connection Study (2016), Devonshire Avenue bike lanes (2015-16), University Avenue Cycle Track (2014), and North Park Street intersection and street redesign project (2013-14).

Anne Winters, M.Pl., – will play a key role in coordinating the stakeholder and public consultation components of the project. As a member of the WSP team, Anne has led or has been heavily involved in a range of transportation and community planning projects across Atlantic Canada. She frequently engages with members of the public and has led focus groups, stakeholder workshops, community surveys, and public open houses for a variety of planning projects. Anne excels at including these data collection types into comprehensive needs analyses and is able to produce thoughtful recommendations that are reflective of community ideas.

## PROJECT METHODOLOGY:

### ***Task 1: Project Initiation and Management:***

- Within one week or as soon as possible we will arrange and attend a project Initiation Meeting with HRM and representatives from HUGA to review the project and objectives. Following the meeting we will conduct a site walk with members of the steering committee to review the site and any constraints.
- We will attend a total of three other client meetings with the Project Steering Committee (HRM and HUGA).

### ***Task 2: Data Collection / Review of Existing Conditions:***

- We will obtain any available materials from HRM including GIS mapping, property line data, LiDAR topographic data, traffic, bicycle and pedestrian volumes as well as traffic speed data, and ortho photos. We have made no accommodation for the collection of additional traffic data.
- We will complete intermittent field measurements at specific locations along the corridor in order to estimate existing features including sidewalk width, ROW width, width between building faces, etc.
- We will review applicable background documentation to help inform plan development. It is anticipated that these documents will include the *2002 Halifax Urban Greenway Plan* and the *2015 Alternative Alignment Concept Plan*.
- Since topographic survey will be required prior to progressing the preferred concepts to detailed design and construction, it may be beneficial to collect this survey data once the preferred alignments are determined to aid in the further development of the preferred alignment. If available, we will obtain HRM supplied survey data supplemented with available topographic survey data collected in 2015 by WSP for



## Proposal to Provide Consulting Services Implementation Plan for Halifax Urban Greenway, Halifax, NS

the HRM Active Transportation Bridges Project. If topographic survey data is not available for the entire alignment from HRM, we are available to collect this data for an additional fee.

### **Task 3: Conceptual Design Development:**

- Based on the existing conditions and background information established in Task 2, we will prepare conceptual plans that identify options for modifying / extending the greenway for the segments 1, 2, 4, 5 identified in Figure 1. This will also include the connection options to existing or proposed AT facilities.

### **Task 4: Public and Stakeholder Consultation:**

- Stakeholder Consultation: We will meet with key project stakeholders to obtain feedback on design options and help identify design opportunities and constraints. We have assumed the following stakeholder meetings as part of this project:
  - HRM Internal Stakeholder Meeting #1: Introductory meeting with key HRM departments including (but not limited to) Project Planning & Design, Traffic Management, Parks, Fire Services, Halifax Transit, Development Engineering, Regional Planning. HUGA representatives will also be invited to this meeting.
  - External Stakeholder Meeting: Introductory meeting with external stakeholders including CN Rail, Saint Mary's University, Nova Scotia Power, Heritage Gas, Halifax Water.
  - Community Stakeholder Meeting: Meeting with community stakeholder groups including Bicycle Nova Scotia, Halifax Cycling Coalition, Ecology Action Centre, Walk & Roll, etc.
- Public Consultation: Public consultation will be held to collect feedback on section design and concept options. WSP will assist in hosting one (1) HRM-led public engagement meeting. Since we understand that this is to be an HRM led meeting, we have made no accommodation for renting a facility for the public consultation. Services for the public engagement will include the following:
  - WSP will prepare a flyer (to be distributed by HRM) to notify and invite the adjacent property owners to the public consultation session.
  - WSP's Project Manager and one other team member will attend the public meeting.
  - We will prepare and deliver a brief overview PowerPoint presentation.
  - We will prepare meeting material and summary boards highlighting key aspects of the project for display at the public meeting and online. Cost for printing meeting material is not included in our budget as it is assumed that HRM will arrange payment for these directly.
  - We will support HRM in the preparation of survey questions for its online engagement tool.
  - We will summarize findings and public feedback in a "What We Heard" Report, to be included in the options assessment.
- We will present the options to a regular meeting of the Active Transportation Advisory Committee at a regularly scheduled session for their input.

### **Task 5: Draft Options Assessment Report**

- An Options Assessment Report will be prepared that summarizes the design options identified with consideration of existing conditions and the implications for various key issues including the following:
  - Cross section options (lane configurations, widths)
  - ROW Impacts (land requirements, traffic lanes, transit, parking, utilities, winter maintenance)
  - User Considerations (Comfort, potential user attraction, safety)
  - Signage, pavement markings, bicycle treatments
  - Facility transition options
  - "What We Heard" Summary of Stakeholder and Public Engagement
  - Discussion of each option will be supplemented with plan view concept plans of key locations.
  - The Report will include a completed evaluation matrix based on the options under consideration and the evaluation criteria established by WSP with input from the Project Steering Committee.
- The draft report will be provided to the Project Steering Committee for comment and input on the recommendations.

### **Task 6: Prepare Preliminary Design (Quinpool Road to South Street, Segment 4) and Final Report**

- Following submission of the Options Evaluation Report and selection of a preferred option for the alignment of the Quinpool Road to South Street Segment by the Steering Committee, we will prepare 30% design drawings and Class "C" Cost Estimates. Although drainage will be considered when preparing the



## Proposal to Provide Consulting Services Implementation Plan for Halifax Urban Greenway, Halifax, NS

30% design drawings, the grading will not be included in the design without the provision of topographic survey for this area. The drawings will include a recommended phasing plan to implement the recommendations and how they could be phased with modifications to the remaining sections.

- A final report will be prepared that summarizes the findings of the draft report and also includes the design drawings and phasing recommendations for the Quinpool Road to South Street Segment.

### Project Schedule:

It is understood that the project must be completed by March 1<sup>st</sup>, 2018. Our team is available to begin work on this project immediately and are confident in the timeline included in the proposed schedule, shown in Table 1.

**Table 1 – Proposed Project Schedule**

Work Task	September 2017				October 2017				November 2017				December 2017				January 2018				February 2018					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1. Project Initiation and Management	M										M									M						M
2. Data Collection / Review of Existing Conditions																										
3. Conceptual Design Development																										
4. Stakeholder Consultation and Public Open House																										
5. Draft Options Assessment Report																										
6. Preliminary Design and Final Report																										

■ Critical Path      ■ HRM Review  
■ Project Path      M Meeting

### Cost Quotation:

We estimate that our consulting services, as described above, can be completed for a budget of **\$37,310 (not including HST)**. A level of effort and budget summary is provided in Table 2.

**Table 2 – Work Breakdown and Budget Estimate**

Work Task		Team Details	Time (Hours)	Per Diem Rate (7 hour days)	Cost (\$)	Work Task Cost (\$)
Task 1	Project Initiation and Management	G. O'Brien	12	\$ 1,015	\$ 1,740	\$ 4,760
		P. Nickerson	8	\$ 735	\$ 840	
		C. MacEacheron	26	\$ 490	\$ 1,820	
		A. Winters	4	\$ 630	\$ 360	
Task 2	Data Collection / Review of Existing Conditions	G. O'Brien	2	\$ 1,015	\$ 290	\$ 2,040
		P. Nickerson	6	\$ 735	\$ 630	
		C. MacEacheron	16	\$ 490	\$ 1,120	
Task 3	Conceptual Design Development	G. O'Brien	12	\$ 1,015	\$ 1,740	\$ 10,700
		P. Nickerson	32	\$ 735	\$ 3,360	
		C. MacEacheron	80	\$ 490	\$ 5,600	
Task 4	Stakeholder Consultation and Public Open House	G. O'Brien	14	\$ 1,015	\$ 2,030	\$ 7,870
		C. MacEacheron	32	\$ 490	\$ 2,240	
		A. Winters	40	\$ 630	\$ 3,600	
Task 5	Draft Options Assessment	G. O'Brien	4	\$ 1,015	\$ 580	\$ 3,120
		P. Nickerson	4	\$ 735	\$ 420	
		C. MacEacheron	20	\$ 490	\$ 1,400	
		A. Winters	8	\$ 630	\$ 720	
Task 6	Preliminary Design and Final Report	G. O'Brien	4	\$ 1,015	\$ 580	\$ 7,870
		P. Nickerson	26	\$ 735	\$ 2,730	
		C. MacEacheron	60	\$ 490	\$ 4,200	
		A. Winters	4	\$ 630	\$ 360	
Extra Work will be provided when required and approved at the rates indicated above, plus expenses and HST.		Other Expenses: (Report Printing, mileage, etc.)			\$ 950	
		Total Cost Estimate for Project (excluding HST)			\$ 37,310	

We look forward to the opportunity to work on this exciting project and continue our strong working relationship with HRM Staff on AT-focused projects. Thank you for the opportunity to submit a proposal. If you have any questions or comments, please contact me by email at [greg.obrien@wsp.com](mailto:greg.obrien@wsp.com) or by telephone at 902-444-8347.

Sincerely,

WSP Canada Inc.  
 Greg O'Brien, P. Eng.  
 Atlantic Practice Manager, Traffic Engineering & Transportation Planning