

Town of Lunenburg Council Meeting

Tuesday, September 13, 2022 at 6:00 p.m.
Council Chamber



PRESENT: Mayor Matt Risser
Deputy Mayor Peter Mosher
Councillor Jenni Birtles
Councillor Melissa Duggan
Councillor Stephen Ernst
Councillor Ed Halverson
Councillor Susan Sanford

ALSO PRESENT: Ann Covey, Recording Secretary
Kelly Cunningham, Recreation Director
Lisa Dagley, Finance Director
Jamie Doyle, Chief Administrative Officer (CAO)
Trevor Hume, Planning Technician
Tyson Joyce, Town Engineer
Arthur MacDonald, Director of Community Development
Heather McCallum, Assistant Municipal Clerk

1. Call to Order – Mayor

2. Acknowledgement of Mi'kma'ki the Ancestral and Unceded Territory of the Mi'kmaq People - Mayor

The Mayor requested a moment of silence in honour of the passing of Queen Elizabeth II and wished King Charles III a successful reign.

3. Agenda

Motion: moved and seconded approval of the agenda as presented. Motion carried.

4. Minutes

Motion: moved and seconded approval of the Council meeting minutes of August 9, 2022 as presented. Motion carried.

5. Public Hearings, Presentations and Questions

- a. Public Information Meeting – Municipal Boundary Review Process

The Assistant Municipal Clerk outlined the Public Information Meeting process and reviewed the presentation (Schedule A).

There were no public submissions.

Motion: moved and seconded to close the public information meeting on the 2022 Municipal Boundary Review. Motion carried.

- b. Brighter Days Capital Campaign – South Shore Regional Hospital – Presentation and Request for Support

Paul Snow, Chairman of the Pace Setting Committee for the Brighter Days Capital Campaign, and Tim O'Regan, Co-Chair of the Brighter Days Capital Campaign, reviewed the presentation (Schedule B).

6. Correspondence, Petitions and Proclamations Consideration

- a. Breaking Barriers Together Association

7. Business Arising from the Minutes/Unfinished Business

8. Committee Meeting Minutes, Recommendations, Reports and Notices of Motion

- a. Proposed Street Services Extension Policy

Councillor Birtles gave notice of motion to consider that, at the September 27, 2022 Council Meeting, the proposed "Street Services Extension Policy" be approved as drafted (Schedule C).

- b. Proposed Land Divestiture Policy

Deputy Mayor Mosher gave notice of motion to consider that, at the September 27, 2022 Council Meeting, the proposed "Land Divestiture Policy" be approved as drafted (Schedule D).

9. New Business

- a. Appointment of Development Officer

The Director of Community Development summarized the report (Schedule E).

Motion: moved by and seconded that the Town hereby appoints Trevor Hume as the Town's Development Officer (Schedule E) in keeping with Section 243 of the Municipal Government Act. Motion carried.

b. RFP Consultants for Upper King Street

The Director of Community Development summarized the report (Schedule F).

Motion: moved and seconded that Council approves ZZAP Consulting Inc. to undertake the Upper King Street RFP proposal at the cost of \$57,035.00 plus HST (net HST is \$59,500) as outlined in Attachment G (Schedule F). Motion carried.

Council asked that the scoring criteria be included in future tender reports.

c. Electric Utility Operating Year End and Capital Funding for March 31, 2022

The Finance Director summarized the report (Schedule G).

Motion: moved and seconded that for the fiscal year ended March 31, 2022 the Electric Utility transfer \$173,000 to its Future Capital Reserve (Schedule G). Motion carried.

d. Town General Operating Year End and Capital Funding for March 31, 2022

The Finance Director summarized the report (Schedule H).

Motion: moved and seconded to approve the Capital financing for the fiscal year ended March 31, 2022 as outlined in Schedule 1 (Schedule H); *and*

to approve the additional Operating and Capital Reserve Transfers for the fiscal year ended March 31, 2022 as outlined in Schedule 2 (Schedule H). Motion carried.

e. Water Utility Operating Year End and Capital Funding for March 31, 2022

The Finance Director summarized the report (Schedule I).

Motion: moved and seconded that for the fiscal year ended March 31, 2022 the Water Utility transfer \$25,000 to its Membrane Replacement Reserve and \$83,445 to its Future Capital Reserve (Schedule I); *and*

that for the fiscal year ended March 31, 2022 the Water Utility provide a dividend of \$50,000 to the Town General fund (Schedule I). Motion carried.

f. RFP Award – Electric Utility Sustainability Assessment

The Finance Director summarized the report (Schedule J).

Motion: moved and seconded to award the RFP for the Electric Utility Sustainability Assessment to CIMA Canada in the amount of \$65,000 + HST (Schedule J). Motion carried.

g. Lunenburg Arena: New Sound System Donation

The Recreation Director summarized the report (Schedule K).

Motion: moved and second to approve a donation for a new sound system to be installed at the Lunenburg War Memorial Arena, funded fully by the Lunenburg Area Minor Hockey and Sporting Society (Schedule K). Motion carried.

h. GIS Masterplan RFP Award

The Town Engineer summarized the report (Schedule L).

Motion: moved and seconded that the GIS Masterplan RFP be awarded to CBCL for the price of \$153,954 plus HST (Schedule L). Motion carried.

i. The Duke & Prince St Reconstruction Tender Award

The Town Engineer summarized the report (Schedule M).

Motion: moved and seconded that the Duke and Prince Street Reconstruction Projects be awarded to Dexter Construction for the amount of \$347,920 plus HST with and increased combined budget of \$419,000 with funding of \$300,000 from Gas Tax and \$119,000 from Deed Transfer Taxes (Schedule M). Motion carried.

j. Building Permit Reporting

The report was provided for information (Schedule N).

k. Capital Status Update

The report was provided for information (Schedule O).

l. Brighter Days Capital Campaign – South Shore Regional Hospital - Request for Support

Motion: moved and seconded that the Town of Lunenburg will consider a contribution to the Brighter Days Capital Campaign for South Shore Regional Hospital in the budget deliberations for fiscal 2023/24 (Schedule B). Motion carried.

Prior to consideration during budget deliberations, staff are asked to follow up with the Brighter Days Capital Campaign to clarify how the amounts asked of each Municipality were determined.

m. Lunenburg Classic Boat Event Request for Noise By-law Exemption

Motion: moved and seconded to approve a *Noise By-law* exemption to allow fireworks for the Lunenburg Classic Boat Event on September 17, 2022 (Schedule P). Motion carried.

10. Meet in camera

Motion: moved and seconded to meet in camera to consider the following matter pursuant to section 22 (2), Municipal Government Act:

- Potential sale of municipal property

Motion carried.

7:09 p.m. Council recessed and met in camera.

11. Resumption of Council meeting in public session

The public portion of the Council meeting resumed at 7:33 p.m. There was nothing to report.

12. Adjournment

The meeting was adjourned at 7:33 p.m. by the Mayor.

Jamie Doyle
CAO

PUBLIC INFORMATION MEETING (PIM) OVERVIEW



- A Public Information Meeting (PIM) provides members of the public with an opportunity to learn about a proposal and make their views known to Council

PIM PROCESS



1. A presentation will be made on the subject of the meeting by staff; Council members may ask questions
2. If received, advance submissions from the public will be noted
3. The Mayor will open up the floor for public submissions in person and online
4. Council will officially close the Public Information Meeting
5. **In this case**, feedback received will be accounted for in a follow up staff report containing the Draft Town submission to the Province at an upcoming Council meeting.

PIM RULES OF CONDUCT – IN-PERSON



- State your name and civic address for the minutes unless otherwise determined by the Mayor/chair
- Speakers are limited to 1 presentation / 10 minutes
- Be respectful of others' opinions
- Council members may question each speaker
- Comments and questions from the public are to be directed to the Mayor/chair
- Once the public information meeting is closed, no further questions or comments on the matter will be received

PIM RULES OF CONDUCT - ONLINE



For Zoom attendees:

- To comment by **audio**, click on the “raise hand” icon and you will be entered into a queue; the ability to be heard will be activated as directed by the Mayor
- To comment by **text**, type into the Chat function and staff will relay to the Mayor
- The “raise hand” and Chat functions will only be enabled during the PIM

PUBLIC INFORMATION MEETING: MUNICIPAL BOUNDARY REVIEW

SEPTEMBER 13, 2022



MUNICIPAL BOUNDARY REVIEW: BACKGROUND



Section 369 of the *Municipal Government Act* (MGA) requires that:

- *In the year 1999, and in the years 2006 and every eighth year thereafter [2022] the council shall conduct a study of the **number and boundaries of polling districts in the municipality**, their fairness and reasonableness and the **number of councillors**.*
- *After the study is completed, and before the end of the year in which the study was conducted, the **council shall apply to the Board** to confirm or to alter the number and boundaries of polling districts and the number of councillors.*

MUNICIPAL BOUNDARY REVIEW: BACKGROUND



In a staff background report an analysis of the following questions and provided a recommendation of **no changes** on each one:

- a) Number of Councillors (not including the Mayor)*
- b) Number of polling district(s);*
- c) Boundaries of polling district(s);*
- d) Fairness of polling district(s);*
- e) Reasonableness of polling district(s); and*
- f) Pre-hearing public consultation process*

MUNICIPAL BOUNDARY REVIEW: BACKGROUND



- At the August 9, 2022 the following motion was passed by Council:

Motion: moved and seconded that Council approve the recommendations in Items 2 (a)-(e) as well as the public consultation process outlined in Item 2 (f) of the “2022 Municipal Boundary Review Process” memorandum (Schedule D). Motion carried.

MUNICIPAL BOUNDARY REVIEW: PUBLIC ENGAGEMENT



- Fact Sheet – Town website, social media channels, physical bulletin board on King Street
- News Release
- *Progress Bulletin/Lighthouse Now* newspaper advertisements in August 24th and 31st issues
- Public Survey – online and print – available until August 28th
- Public Information Meeting – in-person and online – to take place at September 13th Council meeting

MUNICIPAL BOUNDARY REVIEW: SURVEY RESULTS - # OF COUNCILLORS



- Question:

The Town of Lunenburg is one polling district with a population of 2,396 residents as of the 2021 Census, and 6 Councillors (not including the Mayor). Here is a chart of the 25 towns in Nova Scotia for comparison.

Seeing these comparisons and considering workload, which best represents your view on ratio, or the number of Councillors relative to residents in the Town of Lunenburg?

MUNICIPAL BOUNDARY REVIEW: SURVEY RESULTS - # OF COUNCILLORS



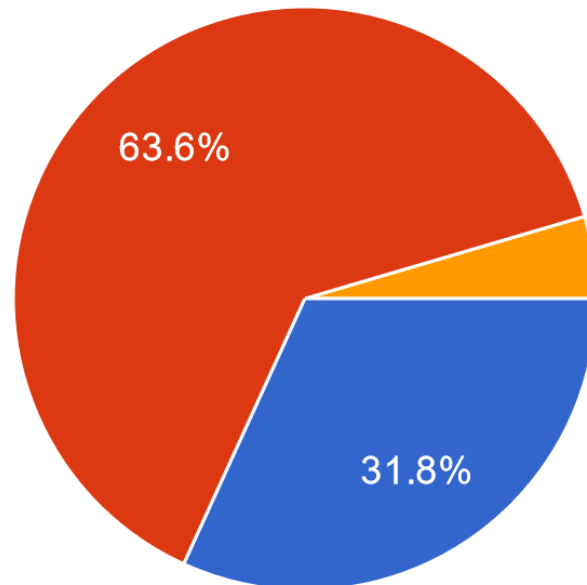
NOVA SCOTIA TOWNS - DATA CHART

Nova Scotia Towns (x25)	Population (2021 Census)	# of Electors (2020)	Total Private Dwellings (2021)	Land Area (km ²)	# Councillors (excluding Mayors)	# of Wards	Councillor: Population	Councillor: Electors
Amherst	9,404	7,676	4,799	12.07	6	1	1,567	1,279
Annapolis Royal	530	471	364	1.98	4	1	133	118
Antigonish	4,656	3,937	2,675	4.98	6	1	776	656
Berwick	2,455	1,799	1,080	6.53	6	1	409	300
Bridgewater	8,790	7,200	4,493	13.63	6	1	1,465	1,200
Clark's Harbour	725	650	399	2.82	6	1	121	108
Digby	2,001	1,512	1,133	3.16	4	1	500	378
Kentville	6,630	4,913	3,090	17.08	6	1	1,105	819
Lockeport	476	n/a	307	2.32	4	1	119	n/a
Lunenburg	2,396	1,939	1,242	4.04	6	1	399	323
Mahone Bay	1,064	876	599	3.12	6	1	177	146
Middleton	1,873	n/a	977	5.55	6	1	312	n/a
Mulgrave	627	580	316	17.83	4	1	157	145
New Glasgow	9,471	7,462	4,782	9.96	6	3	1,579	1,244
Oxford	1,170	931	576	10.68	6	1	195	155
Pictou	3,107	2,551	1,600	7.99	4	2	777	638
Port Hawkesbury	3,210	2,602	1,523	8.10	4	1	803	651
Shelburne	1,644	1,334	917	8.75	4	1	411	334
Stellarton	4,007	3,265	2,017	8.99	4	2	1,002	816
Stewiacke	1,557	1,059	739	17.62	6	1	260	177
Trenton	2,407	1,967	1,167	6.07	4	1	602	492
Truro	12,954	10,421	6,658	37.52	6	3	2,159	1,737
Westville	3,540	2,745	1,660	14.24	4	2	885	686
Wolfville	5,057	4,463	2,856	6.46	6	1	843	744
Yarmouth	6,829	5,352	3,569	10.57	6	1	1,138	892
AVERAGE	3,863	3,028	1,982	9.68	5.20	1	716	610

MUNICIPAL BOUNDARY REVIEW: SURVEY RESULTS - # OF COUNCILLORS



The Town of Lunenburg is one polling district with a population of 2,396 residents as of the 2021 Census, and 6 Councillors (not including the Mayor...rs relative to residents in the Town of Lunenburg?
22 responses



- Lunenburg has too many Councillors
- Lunenburg has the right number of Councillors
- Lunenburg does not have enough Councillors

MUNICIPAL BOUNDARY REVIEW: SURVEY RESULTS - POLLING DISTRICT(S)

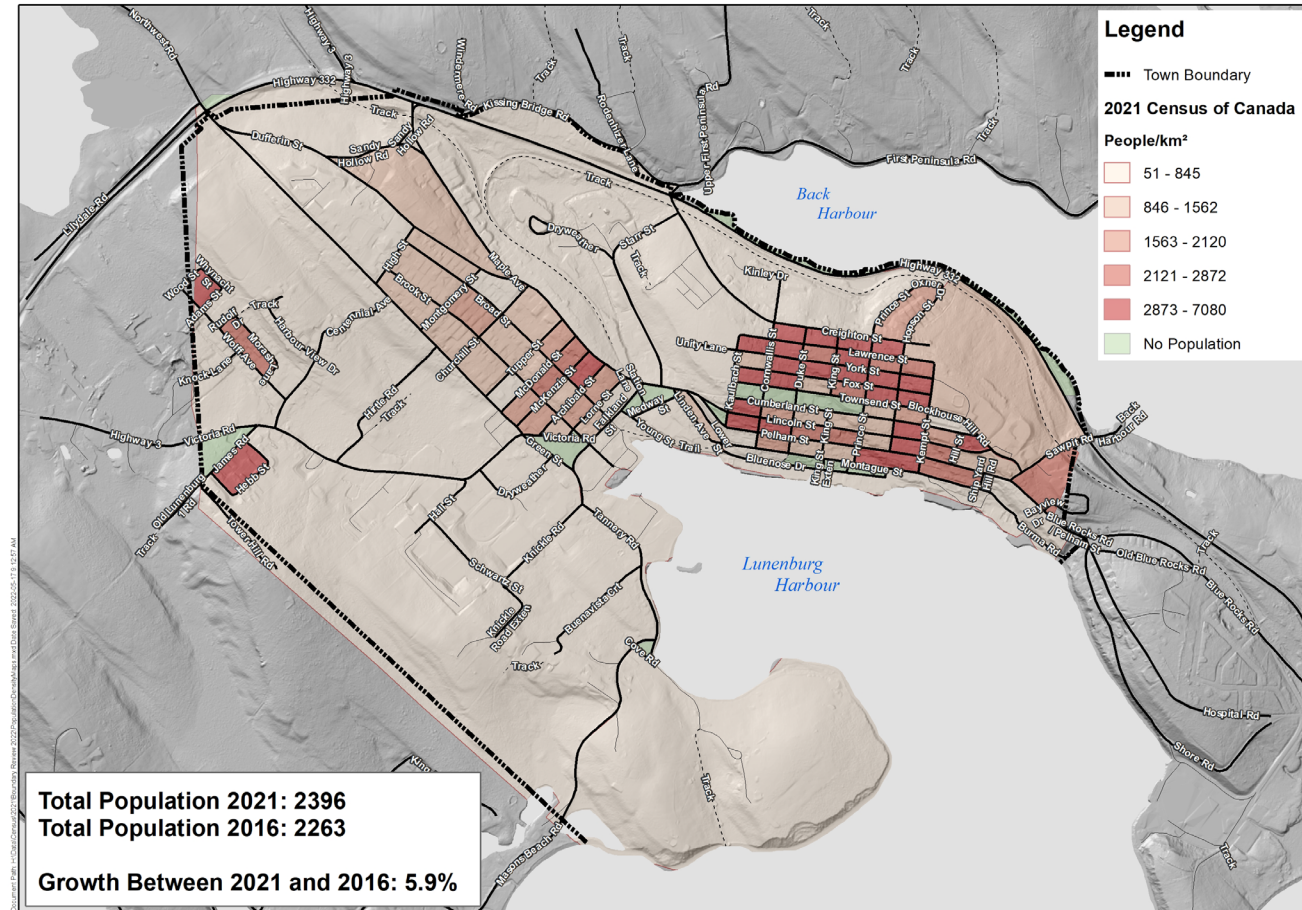


■ Question:

With a land area of 4.04km², the Town of Lunenburg has been a single polling district for over 100 years, with councillors “at large” representing all residents of the Town. At one time a ward system of three polling districts was the practice but was discontinued in 1909.

Knowing this, which best represents your views on polling districts?

MUNICIPAL BOUNDARY REVIEW: SURVEY RESULTS - POLLING DISTRICT(S)



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TOWN OF LUNENBURG
Population/km² - Census of Canada



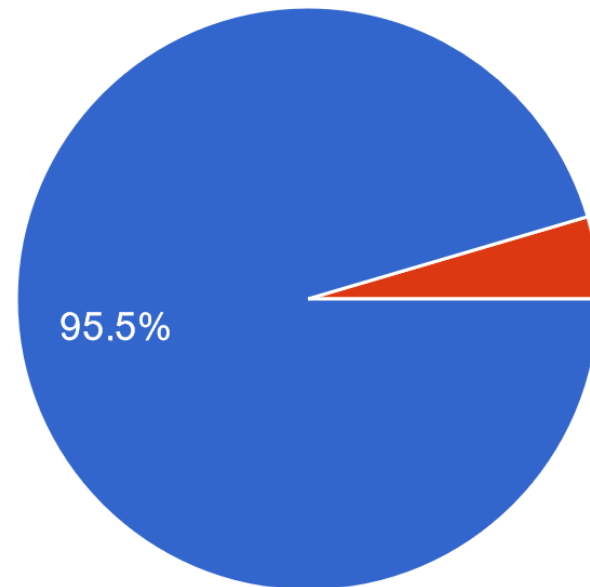
630
Metres

MUNICIPAL BOUNDARY REVIEW: SURVEY RESULTS - POLLING DISTRICT(S)



With a land area of 4.04km², the Town of Lunenburg has been a single polling district for over 100 years, with councillors “at large” representing all residents. Which best represents your views on polling districts?

22 responses



- Lunenburg should continue to be a single polling district
- Lunenburg should change to a ward system

MUNICIPAL BOUNDARY REVIEW: SUMMARY



■ Next Steps

- A draft Municipal Boundary Review application to the Board is prepared by staff; the draft is presented to Council at an upcoming meeting for final approval
- The Municipal Boundary review application is submitted to the Board before the end of 2022
- The Board will schedule a Public Hearing to be held in the Town; the Town will present its application and the public will be invited to comment
- The Board will render their decision within 60 days of the Hearing

MUNICIPAL BOUNDARY REVIEW: SUMMARY



■ Information Links

- A Fact Sheet on the Lunenburg Boundary Review is available here: <https://townoflunenburg.ca/fact-sheet-municipal-boundary-review.html>
- The staff background report from the August 9, 2022 Council Meeting is available here: <https://townoflunenburg.ca/news/1137-coun-aug-9-22-municipal-boundary-review-process.html>
- The public survey questions can be viewed here; please note that responses are now closed: <https://bit.ly/TOL-BoundarySurvey>

■ Questions/Comments?



SOUTH SHORE REGIONAL HOSPITAL

Project Scope

By the Numbers

OVERALL SIZE

Currently 170,000 sq ft.

Increase of 48,705 sq ft.

= 218,705 sq ft. (28.65% expansion)

OVERALL COST

\$115.7 million overall cost

Facility Additions

TWO-STOREY ADDITION

will house a new **Emergency Department, Ambulatory Care, Endoscopy Unit and Dialysis Unit**, in addition to **four Ambulance Bays**.

SINGLE STOREY ADDITION

will be home to a new **MRI Suite**.

TWO SMALLER ADDITIONS

will be built to accommodate essential upgrades to mechanical and electrical systems.



Project Highlights

- The **Emergency Department** will triple in size
- Increased number of **exam rooms** from **14 to 20**
- **New access road to the HeliPad** for life flight services
- Addition of a **Dialysis Unit** with 12 treatment chairs
- A new **MRI Suite** - anticipate 3000 scans/year in the new suite
- New **SPEC-CT** Scanner – provides detailed diagnostic images
- **Expanded Endoscopy and Day Surgery** will better support local patients
- **Weather-protected Ambulance Bays** will improve patient comfort and privacy
- **Systems upgrades** will target LEED Silver level certification
- **Construction** will be phased over 4 years, completion target 2025.



Brighter Days Capital Campaign

- Community has been asked to raise \$6.6 million to fund the purchase of essential medical equipment
- David Himmelman and Tim O'Regan Co-Chairs for the campaign committee
- In excess of 100 volunteers from the community will work on the campaign
- The community response to the initial phases of the campaign has been positive



Community Impact

- The South Shore Regional Hospital services Lunenburg, Queens and a portion of Shelburne Counties
- The redevelopment project will positively impact the recruitment and retention of health care professionals, an anticipated 60-80 new permanent jobs will be created in the community
- A modern regional healthcare facility increases the appeal of Lunenburg and Queens Counties to potential residents. This project protects our hospital's "Regional Hospital" status now and into the future.
- Construction will have a positive impact on the economic activity in the region with an anticipated 300 construction workers on site daily



Ways to Give

- **Pledged** gift (up to 5 years)
- **One-time** contribution
- **Gifts of stocks**, bonds, annuities, real estate or other capital property
- The campaign is requesting support from the regional municipalities and towns both financially and logistically (ie ad space)
- Suggested gift from the Town of Lunenburg
\$100,000 over 4-5 years



**OUR LOCAL HOSPITAL IS WORTH ALL
OF OUR SUPPORT.**

**IT IS READY FOR THE COMMUNITY
WHEN THE COMMUNITY NEEDS IT.**



Circulated: _____

Document No:

Meeting: Council September 13, 2022

Circulate To: Council, JD, HM, LD

File:

M E M O R A N D U M

TO: TOWN COUNCIL

FROM: ARTHUR MACDONALD, DIRECTOR OF COMMUNITY DEVELOPMENT

DATE: AUGUST 26, 2022

RE: PROPOSED STREET SERVICES EXTENSION POLICY

1. FACTS

A. Background

The Department of Community Development has been working on a service extension policy to help facilitate the extension of public services for development proposals. In consultation with Public Works and the Department of Finance, staff has developed a *Street Services Extension Policy* for Council's consideration and approval.

B. Proposal

The proposal is to have Council approve a *Street Services Extension Policy* to identify the approach with regards to the extension of street services and to identify when and how cost sharing scenarios may be deemed appropriate. The Policy deals with the extension of services for the following scenarios:

- 1) Extension of Services for lots created by Plan of Subdivision on newly created Public Open Streets (Article 4 – Attachment A);
- 2) Extension of Services for lots created by Subdivision on Existing Public Open Streets (Article 5 – Attachment B);
- 3) Extension of Services for lots on existing street reserves that are not Public Open Streets (Article 6 – Attachment C);
- 4) Extension of Services for existing lots with no Public Open Street frontage (Article 7 – Attachment D); and
- 5) Extension of Services for existing lots with street frontage on a Public Open Street with inadequate services (Article 8 – Attachment E).

The proposed Policy outlines where cost sharing of services may be deemed appropriate, upon the approval of the Town Engineer, and the means of ensuring that budgetary considerations are considered by Council through the following year budget deliberations.

The Policy also provides a map of Public Open Streets (Schedule A) to help distinguish between Public Open Streets and existing road reserves.

2. ISSUES AND OPTIONS

The proposed Policy enables Council to consider cost sharing scenarios for the extension of storm, sewer and water services. This will only be considered when there is a clear benefit for public investment at the absolute discretion of Council on a case-by-case nature. When a request is made, the public expenditure will be reviewed during the following year's budget deliberations and approved through the budget process prior to entering any cost-sharing arrangements. This would have the potential to impact the Town's budget from time to time.

The Town has three options:

- 1) To proceed with the approval of the proposed *Street Services Extension Policy* as outlined in **Attachment F**;
- 2) To proceed with the approval of the proposed *Street Services Extension Policy* as outlined in **Attachment F** with amendments; or
- 3) Maintain status quo. This is not a viable option as it provides uncertainties as to how and who pays for service extensions.

To encourage developments and to attempt to make servicing arrangements clearer to all involved, it is recommended to approve the *Street Services Extension Policy*. The Policy has been reviewed by Public Works as well as through the Department of Finance, which also administers the Water Regulations. The proposed *Street Services Extension Policy* is in-keeping with the Town's Subdivision By-law, Policy #3: Installation/Repairs to Sanitary, Storm Sewer and Water Laterals as well as the Town's Water Regulations.

3. FINANCIAL IMPACT

There will be financial impacts for those applications requesting cost-sharing of service extensions. The lack of services is one of the major barriers to growth. A *Street Services Extension Policy* would enable staff to outline to the public what is feasible and what work is required to be undertaken at the applicant's expense and what work may be considered through cost-sharing arrangements with the Town.

4. **STRATEGIC PLAN RELEVANCE**

To proceed with a *Street Services Extension Policy* would be in-keeping with the Town's CCP, in particular:

Economic Development: Direction to support economic development.

5. **RECOMMENDATION AND DRAFT MOTION**

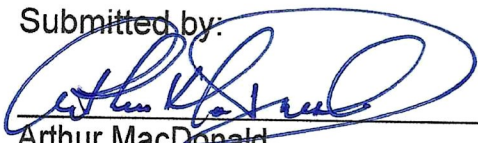
It is recommended that Council approves the *Street Services Extension Policy* as outlined in Attachment F. Notice of Motion is required.

Motion: Moved and seconded that Council hereby gives notice of motion to consider, at a following meeting, the approval of the *Street Services Extension Policy* as outlined in Attachment F.

ATTACHMENTS:

- A. Article 4 – Attachment A
- B. Article 5 – Attachment B
- C. Article 6 – Attachment C
- D. Article 7 – Attachment D
- E. Article 8 – Attachment E
- F. Proposed *Street Services Extension Policy*

Submitted by:



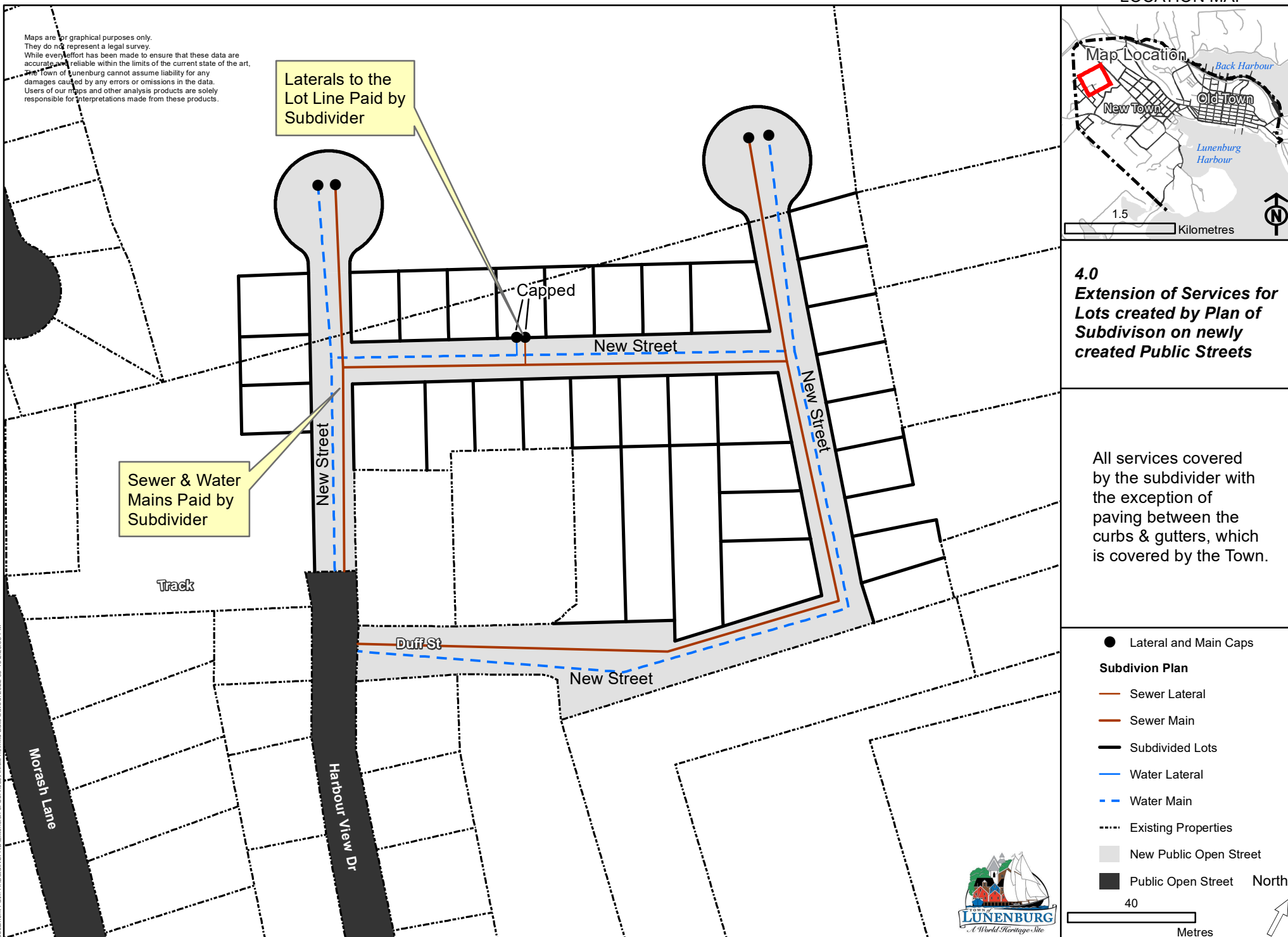
Arthur MacDonald
Director of Community Development

Date: August 26/2022

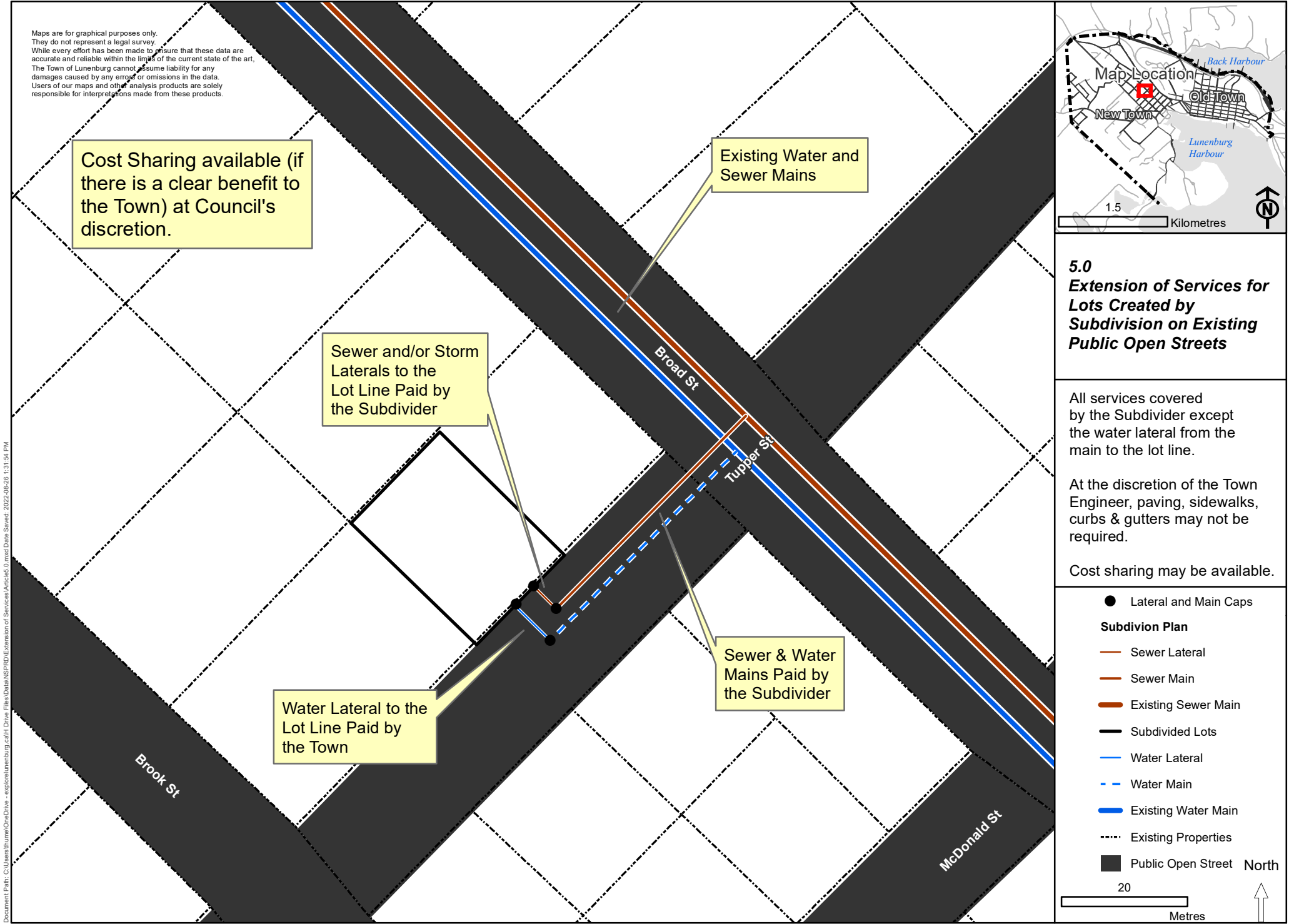
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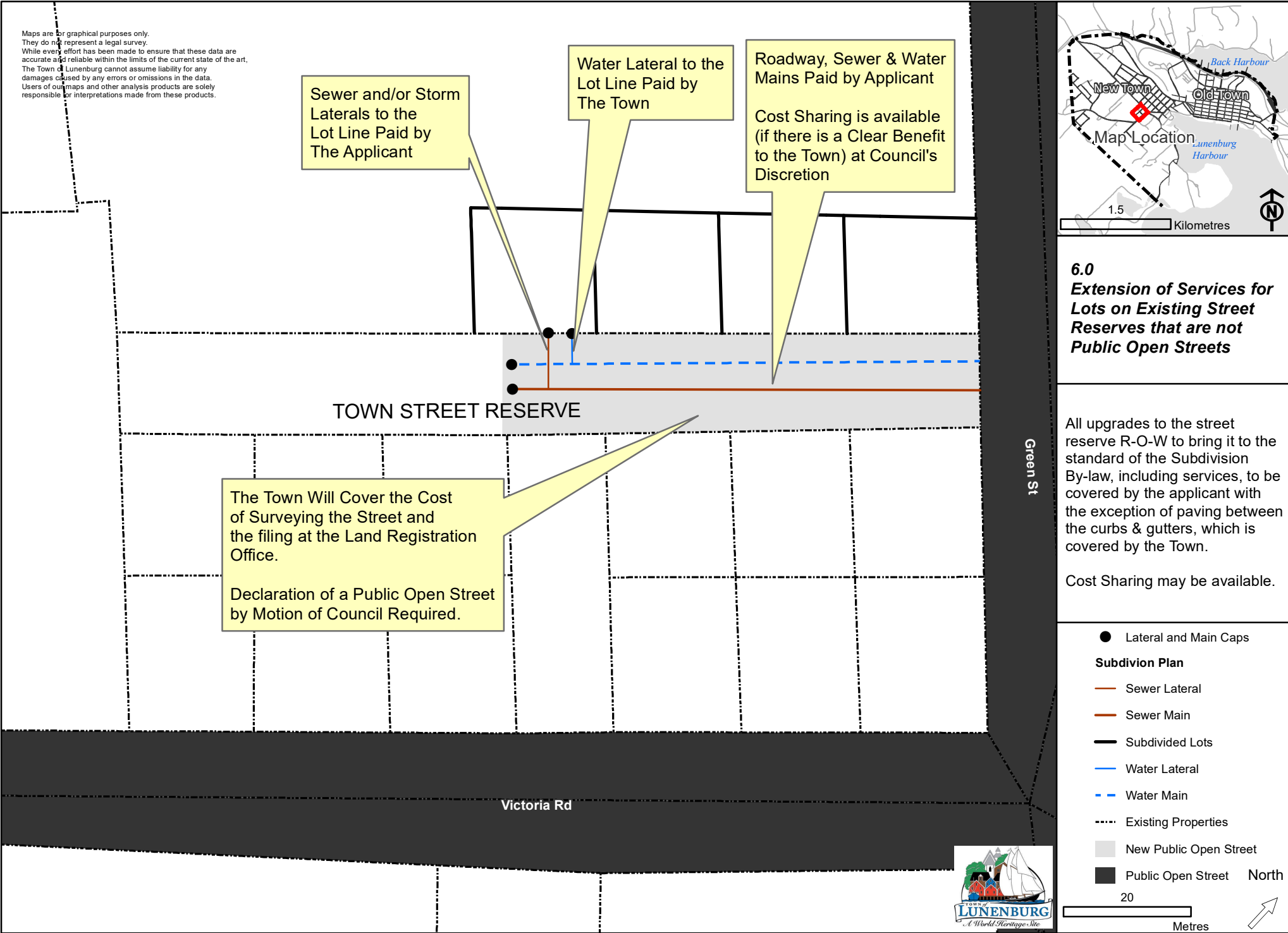
Jamie Doyle
CAO

ARTICLE 4.0 - EXAMPLE SKETCH



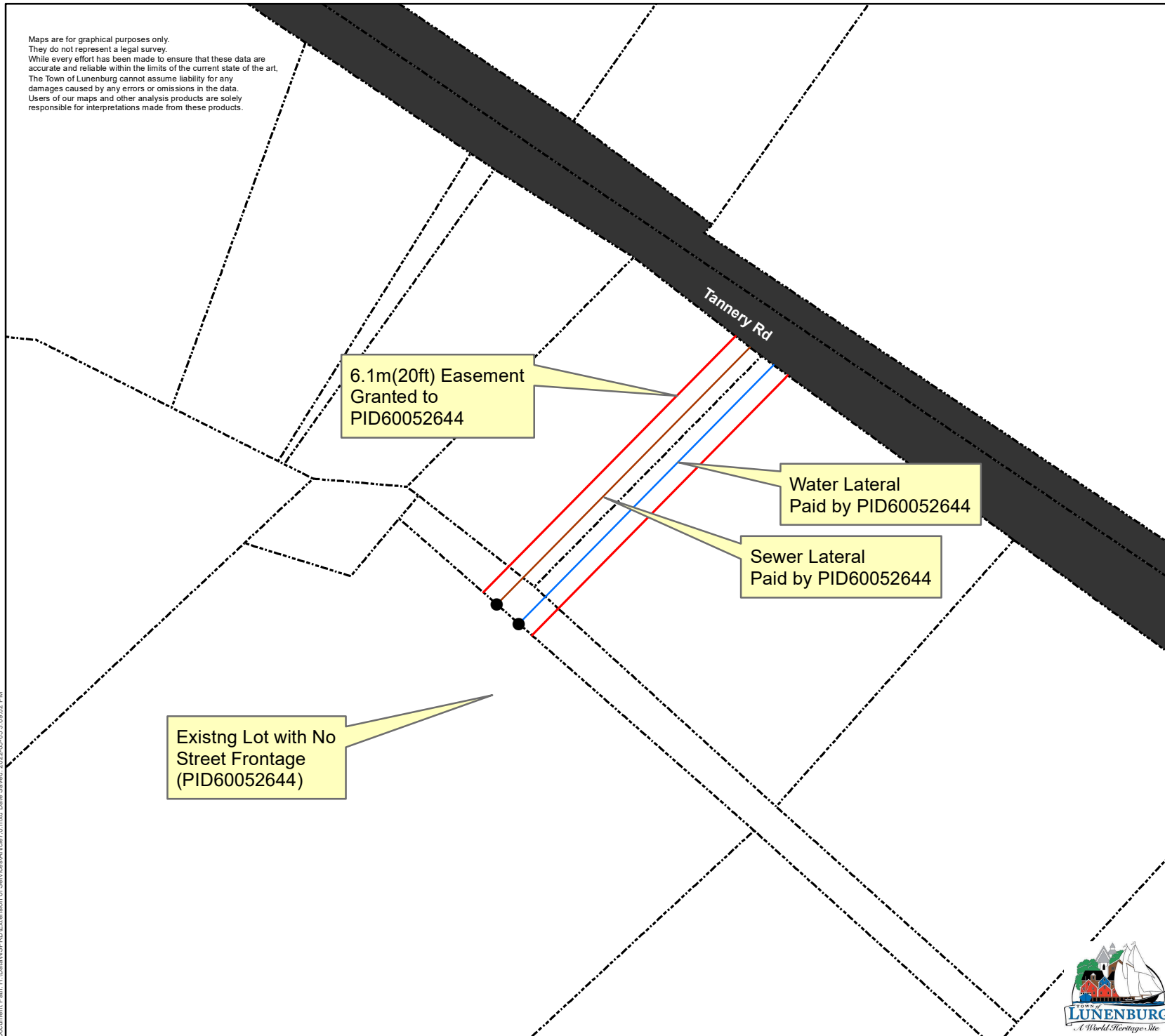
ARTICLE 5.0 - EXAMPLE SKETCH



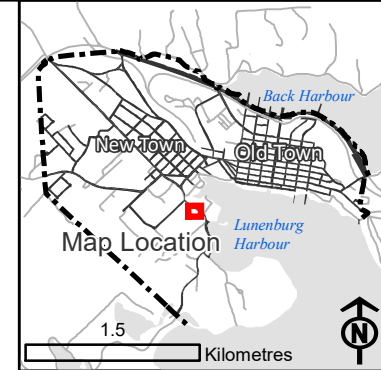


ARTICLE 7.0 - EXAMPLE SKETCH

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LOCATION MAP



7.0 Extension of Services for Existing Lots with no Public Open Street Frontage

At the discretion of the Town Engineer, lots in this category may be serviced via laterals placed within a 6.1m (20ft) easement vested to the owner of said lands.

This option to be available only if no other practical alternatives are present.

● Lateral and Main Caps

Servicing Plan

— Service Easement

— Sewer Lateral

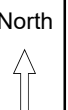
— Water Lateral

--- Existing Properties

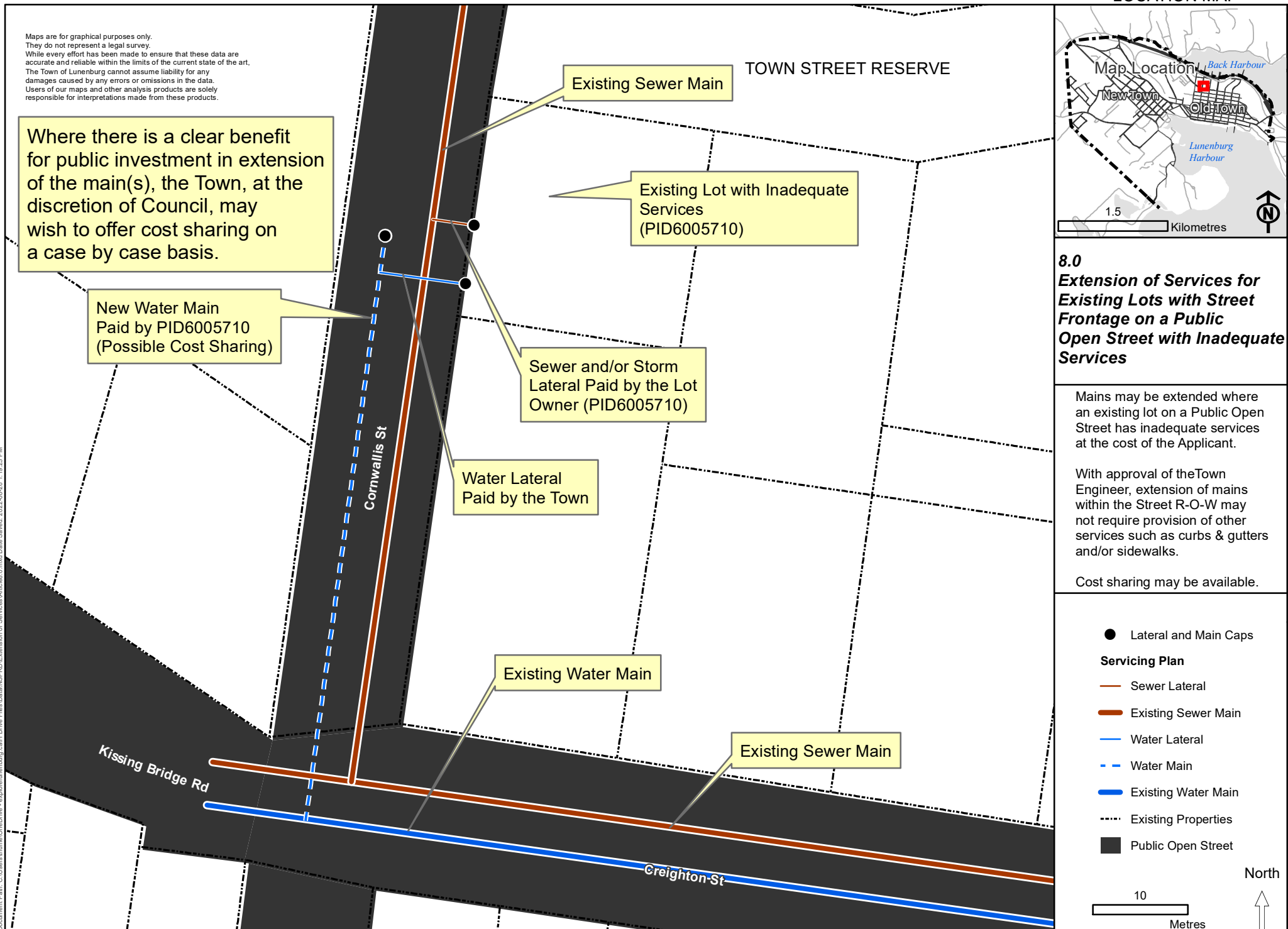
■ Public Open Street



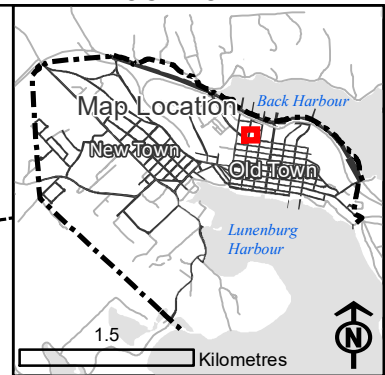
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Metres



ARTICLE 8.0 - EXAMPLE SKETCH



LOCATION MAP



8.0 Extension of Services for Existing Lots with Street Frontage on a Public Open Street with Inadequate Services

Mains may be extended where an existing lot on a Public Open Street has inadequate services at the cost of the Applicant.

With approval of the Town Engineer, extension of mains within the Street R-O-W may not require provision of other services such as curbs & gutters and/or sidewalks.

Cost sharing may be available.

● Lateral and Main Caps

Servicing Plan

— Sewer Lateral

— Existing Sewer Main

— Water Lateral

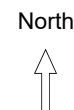
- - - Water Main

— Existing Water Main

- - - Existing Properties

■ Public Open Street

10 Metres



ATTACHMENT E
Proposed Street Services Extension Policy

1.0 Short Title

- 1.1 This Policy shall be known as and may be cited as the “Street Services Extension Policy”.
- 1.2 This Policy is intended to establish the way and means of delivering and installing services to existing as well as new developments.

2.0 Definitions

- 2.1 In this Policy the definitions as laid out in the Town's Land Use By-law, the Town's Subdivision By-law and the Town's Subdivision Specification shall prevail.

3.0 Town's Water Regulations

- 3.1 The extension of water mains and water laterals shall be undertaken pursuant to the Lunenburg Water Utility Schedule of Rules and Regulations known as the Town's Water Regulations. Where there is a conflict between this Policy and the Town's Water Regulations, the provisions of the Town's Water Regulations shall prevail.

4.0 Extension of Services for lots created by Plan of Subdivision on newly created Public Open Streets:

- 4.1 The extension of storm mains, sewer mains and water mains shall lay within the proposed street right-of-way so that they are located directly in front of any proposed lot on a Plan of Subdivision. The costs associated with said extension shall be borne by the subdivider (applicant).
- 4.2 Each lot on a Plan of Subdivision on a proposed public street shall be serviced with a sewer lateral and a water lateral from the sewer main and water main respectively, to the lot line of any lot on a Plan of Subdivision. The costs associated with said lateral shall be borne by the subdivider (applicant). The extension of the laterals from the lot line to the development shall be borne by the owner of the lot being serviced.
- 4.3 The proposed public street and services shall be constructed in accordance with the Town's Subdivision By-law and Subdivision Specifications.
- 4.4 The boundaries of the proposed street shall be surveyed and upon completion, in compliance with the Town's Subdivision By-law and Subdivision Specifications, shall be transferred over to the Town and the Town shall declare said lands as a public open street, naming the public street and be responsible for paving said street between the curbs and gutters. The costs of undertaking the survey plan as well as the costs associated with filing the Plan with the Registry shall be borne by the applicant.

5.0 Extension of Services for lots created by Subdivision on Existing Public Open Streets:

- 5.1 Where a proposed lot is situated on an existing public open street that lacks a storm main, sewer main or a water main, the said main may be extended at the cost of the subdivider (applicant) so that the main directly fronts on the proposed lot.

- 5.2 Where an extension is undertaken pursuant to Section 5.1, the extension of the storm main, sewer main or water main, as the case may be, shall be undertaken within the existing public open street right-of-way with the approval of the Town Engineer with no necessity of providing additional services such as, but not limited to, curbs and gutters and/or sidewalks, unless said services are deemed required by the Town Engineer.
- 5.3 Where an extension is undertaken pursuant to Section 5.1 and 5.2, the Town will install the water lateral from the water main to the lot line. The associated costs with extending the storm lateral and/or sewer lateral from the mains to the lot line shall be borne by the owner of the lot being serviced. The extension of the laterals from the lot line to the development shall be borne by the owner of the lot being serviced.
- 5.4 Notwithstanding 5.1, 5.2 and 5.3, where there is a clear benefit for public investment into the extension of services, the Town may wish to cost share in the development of the extension of said services. Such cost sharing shall be at the absolute discretion of Council on a case-by-case nature. The public expenditure shall be reviewed at the following year's budget deliberations and approved through the budget process prior to entering any cost sharing scenarios.

6.0 Extension of Services for lots on existing street reserves that are not Public Open Streets:

- 6.1 Where an existing lot or a proposed lot only has frontage on an existing street reserve owned but not maintained by the Town, which is not a public open street, the costs associated with the extension of services as required by the Town's Subdivision By-law and Subdivisions Specifications, shall be borne by the applicant. These costs include bring the road reserve up to the standards of a public open street including but not limited to, the roadbed, curbs and gutters, sidewalks, storm mains, sewer mains and water mains, and electrical, cable and telephone services. The Town will be responsible for the installation of the water laterals from the mains to the lot line as well as the paving of the roadbed. The associated costs with extending the storm lateral and/or sewer lateral from the mains to the lot line shall be borne by the owner of the lot being serviced. The extension of the laterals from the lot line to the development shall be borne by the owner of the lot being serviced.
- 6.2 Notwithstanding 6.1 where there is a clear benefit for public investment into the creation of a public open street from the Town's road reserves, the Town may wish to cost share in the development of the public open street. Such cost sharing shall be at the absolute discretion of Council on a case-by-case nature. The public expenditure shall be reviewed at the following year's budget deliberations and approved through the budget process prior to entering any cost-sharing scenarios.
- 6.3 Prior to Council declaring the road reserve as a public open street, the Town will survey the road reserve at the Town's expense in-keeping with Section 312(2) of the *Municipal Government Act*, and any amendments thereto, and file the Survey Plan with the Registry of Deeds (Land Registration Office) upon Council's declaration to create the public open street.

7.0 Extension of Services for existing lots with no Public Open Street frontage:

- 7.1 Existing lots with no public open street frontage may request to the Town Engineer, the ability to service said lot with a storm, sewer or water lateral provided the laterals are located within a 6.1 metres (20 Ft.) easement vested to the owner of said lands being serviced. This shall be only considered at the absolute discretion of the Town Engineer if there are no practical alternative presented that would enable the property to be serviced with storm, sewer and/or water services. The Town will install the water lateral from the

water main to the closest lot line abutting the street. The associated costs with extending the storm lateral and/or sewer lateral from the mains to the closest lot line abutting the street shall be borne by the owner of the lot being serviced. The extension of the laterals from the closest lot line abutting the street to the development through the easement shall be borne by the owner of the lot being serviced.

8.0 Extension of Services for existing lots with street frontage on a Public Open Street with inadequate services:

- 8.1 Where an existing lot is situated on an existing public open street that lacks a storm main, sewer main or a water main, the said main may be extended at the cost of the subdivider (applicant) so that the main directly fronts on the proposed lot.
- 8.2 Where an extension is undertaken pursuant to Section 8.1 the extension of the storm main, sewer main or water main shall be undertaken within the existing street right-of-way with the approval of the Town Engineer with no necessity of providing additional services such as, but not limited to, curbs and gutters and/or sidewalks, unless said services are deemed required by the Town Engineer.
- 8.3 Where an extension is undertaken pursuant to Section 8.1 and 8.2 the Town will install the water lateral from the water main to the lot line. The associated costs with extending the storm lateral and/or sewer lateral from the mains to the lot line shall be borne by the owner of the lot being serviced. The extension of the laterals from the lot line to the development shall be borne by the owner of the lot being serviced.
- 8.4 Notwithstanding 8.1, 8.2 and 8.3, where there is a clear benefit for public investment into the extension of the storm main, sewer main or water main, the Town may wish to cost share in the extension of the storm main, sewer main or water main. Such cost sharing shall be at the absolute discretion of Council on a case-by-case nature. The public expenditure shall be reviewed at the following year's budget deliberations and approved through the budget process prior to entering any cost sharing scenarios.

9.0 Extension of Services shall be Mains:

- 9.1 Notwithstanding anything contained in this Policy, the extension of storm, sewer and water services located within a street right-of-way or easement vested to the Town shall not be in the form of sewer or water laterals. Such extensions shall be undertaken to the specifications of storm, sewer and water mains as the case may be.

10.0 Lateral Attachments to Mains within an Easement:

- 10.1 Notwithstanding anything contained in this Policy, the extension of storm mains, sewer mains and water mains may be laid within a 6.1 metres (20 ft.) easement vested to the Town if there are no practical alternative presented that would enable the mains to be located within the proposed street right-of-way or an existing street right-of-way subject to the approval of the Town Engineer. Subsequently, subject to the approval of the Town Engineer, laterals may be installed from any mains located solely within an easement if there are no practical alternative presented that would enable the laterals to connect to mains located within any proposed street right-of-way or an existing street right-of-way.

11.0 Identification of Public Open Streets

- 11.1 Public open streets owned and maintained by the Town shall be limited to those public open streets as shown on Schedule "A" - Public Open Streets Map.

SCHEDULE "A" PUBLIC OPEN STREETS MAP

Legend

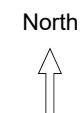
- Town Boundary
- Public Open Streets
- Parcels

Document Path: H:\Data\NSPRD\Extension of Services\TownExtension\OS\ServicesOpenStreets\2.mxd Date Saved: 2022-02-25 2:10:10 PM



Maps are for graphical purposes only.
They do not represent a legal survey.
While every effort has been made to ensure that these data are accurate and reliable within the limits of the current state of the art, The Town of Lunenburg cannot assume liability for any damages caused by any errors or omissions in the data. Users of our maps and other analysis products are solely responsible for interpretations made from these products.

TOWN OF LUNENBURG Public Open Streets Map



510

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Circulated: _____

Document No:

Meeting: Council September 13, 2022

Circulate To: Council, JD, HM, LD

File:

MEMORANDUM

TO: TOWN COUNCIL

FROM: ARTHUR MACDONALD, DIRECTOR OF COMMUNITY DEVELOPMENT

DATE: AUGUST 24, 2022

RE: PROPOSED LAND DIVESTITURE POLICY

1. FACTS

A. Background

The Department of Community Development has been working on a proposed Land Divestiture Policy to help facilitate the disposal of Town surplus lands in-keeping with the Municipal Government Act (MGA). In consultation with the Town's Management Team, staff has developed a Land Divestiture Policy for Council's consideration and approval.

B. Proposal

The proposal is to have Council approve a Land Divestiture Policy to identify the approach with regards to the sale of Town surplus lands. The Policy deals solely with the divestiture of land and does not entertain other assets of the Town. Other assets, such as vehicles and machinery will be dealt with under an Asset Divestiture Policy.

In keeping with the Town's Comprehensive Community Plan (CCP) a public engagement process has been outlined in Part 7 of the Policy. This would require the Town to undertake a Public Information Meeting (PIM) for the sale of any surplus Residential Use (RL, RM, RH, RUR) Zone lands as defined under the Town's Land Use By-law. Any sale of any lands not zoned Residential (RL, RM, RH, RUR), the requirement to hold a PIM will be at the discretion of the CAO.

The Policy requires a staff report to be filed with Council prior to declaring land as surplus. As outlined in the Policy, a staff report will include items as identified in Appendix A - Land Profile Evaluation Tool.

2. **ISSUES AND OPTIONS**

The proposed Policy enables Council to follow a procedure with regards to the sale of surplus lands.

The Town has three options:

- 1) To proceed with the approval of the proposed Land Divestiture Policy as outlined in **Attachment A**;
- 2) To proceed with the approval of the proposed Land Divestiture Policy as outlined in **Attachment A** with amendments; or
- 3) Maintain status quo. This is not a viable option as it provides uncertainties as to how the Town will proceed with the sale of surplus lands.

To enable the sale of surplus Town lands in a coherent fashion, it is recommended to approve the Land Divestiture Policy. The Policy has been reviewed by the Town's Management Team and is in compliance with the MGA and the Town's CCP.

3. **FINANCIAL IMPACT**

There will be financial impacts associated with preparing lands for sale, including but not limited to, lawyer fees for clear title and migration, survey plans/subdivision plans and fair market appraisals. However, it is anticipated that these costs will be recouped through the sale of the surplus lands. In addition, once the lands are transferred into private hands, the lands would have an opportunity to enhance economic growth through new developments as well as improve the Town's overall budget through increased property assessments.

4. **STRATEGIC PLAN RELEVANCE**

To proceed with a Land Divestiture Policy would be in-keeping with the Town's CCP, in particular:

Economic Development: Direction to support economic development.

Community Structure: Direction regarding how the town will be structured and how land will be used.

Servicing and Facilities: Direction to ensure efficient infrastructure, and that municipal facilities are properly managed and maintained for future use. Plan for the long term of all municipal facilities, including renovation, sale or lease.

5. **RECOMMENDATION AND DRAFT MOTION**

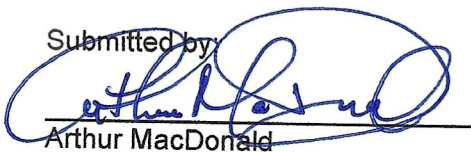
It is recommended that Council approves the Land Divestiture Policy as outlined in Attachment A.

Motion: Moved and seconded that Council hereby gives notice of motion to consider, at a following meeting, the approval of the Land Divestiture Policy as outlined in Attachment A.

ATTACHMENTS:

A. Proposed Land Divestiture Policy

Submitted by:

A handwritten signature in blue ink, appearing to read 'Arthur MacDonald', is written over a horizontal line.

Arthur MacDonald
Director of Community Development

Date: August 26/2022

Acknowledged only by:

Jamie Doyle
CAO

ATTACHMENT A

Town of Lunenburg Land Divestiture Policy

1.0 Purpose

1.1 This policy provides guidance for the Town of Lunenburg (“the Town”) when proposing to divest surplus land.

2.0 Municipal Government Act (MGA)

2.1 In declaring surplus property for divestiture, the Town shall comply with the Municipal Government Act (MGA) with particular attention to Sections 50, 51, 51A, and 218.

3.0 Definitions

3.1 “Appraisal” – means an opinion on the fair market value of the surplus land provided by an Accredited Land Appraiser or such other qualified person as the CAO deems suitable.

3.2 “Divestiture” – means the sale, exchange, or transfer of any portion of the Town’s surplus land.

3.3 “Land” – means lands owned by the Town, whether vacant or not, or any other proprietary interests in lands owned by the Town, and, without limiting the generality of the foregoing, includes easements, rights-of-way, leaseholds, and includes any interest in lands under an agreement of purchase or sale.

3.4 “Fair Market Value” – means the amount that the land might be expected to realize if sold in the open market by a willing seller and buyer.

3.5 “The Town” – means the Town of Lunenburg.

3.6 “Surplus Land” – means any land declared surplus by the Town that is no longer required for Town purposes.

3.7 “Immediate Family Member” – means any spouse of a Council member or employee of the Town, and any son, daughter, mother, father, brother or sister of a Council member or employee of the Council members’ or employee’ spouse; or any other person who normally resides in the same home as a Council member or employee of the Town.

3.8 “CAO” – means the Chief Administrative Officer of the Town of Lunenburg.

3.9 “Development” – means any erection, construction, alteration, replacement, or relocation of or any addition to any structure and/or any change or alteration in the use made of land, buildings, or structures.

3.10 “Lot” - means any existing lot and includes any lot to be created by the filing of a Plan of Subdivision.

3.11 “Subdivision” - means the division of any area of land into two or more parcels and includes a re-subdivision or a consolidation of two or more parcels.

4.0 General

4.1 In the event that the provisions of this Policy are inconsistent with the provision of the Municipal Government Act, its’ Regulations or any other Act, the provisions of the Act or Regulations shall prevail.

4.2 This policy shall be consistent with the Town’s objectives, by-laws and approved policies as well as all Provincial and Federal legislation governing the operation of the Town. Where there is a conflict, the higher or more stringent regulation or provision shall prevail.

4.3 Any Council reports dealing with any divestiture of any Town lands, including the determination of the sale price and/or negotiations related thereto, shall be dealt with in-camera in accordance with Section 22(2)(a) of the MGA until such time as required to be dealt with at an open meeting of Council.

4.4 The Town may refuse any offer of purchase at its sole and absolute discretion.

4.5 Divesting of surplus land will be subject to any pre-existing benefits, burdens, and/or interests (including, but not limited to easements) of title.

4.6 To avoid Conflict of Interest:

- a. a Council member; or
- b. an employee of the Town; or
- c. an immediate family member; or
- d. a company in which a person referred to in clause (a), (b), or (c) has an interest

are precluded from purchasing Town surplus property, except when said property directly abuts their existing property in-keeping with Section 51A of the MGA.

5.0 Requests for Municipal Property

5.1 Council may consider the divesting of Town lands upon written request prepared by the prospective purchaser or their agent.

5.2 Council may deem properties surplus without a request if it is felt that the property is no longer required for Town purposes.

6.0 Determination of Surplus Land

6.1 Prior to divesting any lands, Council shall, by resolution, declare the land surplus and declare that the lands are no longer required for Town purposes.

6.2 Before declaring a property to be surplus, a report and recommendation shall be submitted for Council's consideration.

6.3 The evaluation criteria in Appendix A will be used to create a land profile and will form part of the report referred to in Section 6.2.

6.4 Prior to divesting any surplus land, the Town may wish to obtain or require:

- a. clear title and migration into the Land Registration Office;
- b. a legal survey plan;
- c. a subdivision plan, if required; and
- d. an appraisal for Fair Market Value.

7.0 Public Information Meeting (PIM)

7.1 Prior to divesting any surplus Residential Use (RL, RM, RH, RUR) Zone lands as defined under the Town's Land Use By-law, Council shall hold a Public Information Meeting (PIM) to advise the public and to seek public comments into the possible divestiture of Town land.

7.2 Prior to divesting any surplus lands not zoned as Residential Use (RL, RM, RH, RUR) Zone as defined under the Town's Land Use By-law the holding of a Public Information Meeting (PIM) to advise the public and to seek public comments into the possible divestiture of Town land shall be at the discretion of the CAO.

8.0 Property Exempt from Policy

8.1 Properties that are up for sale due to tax arrears pursuant to Section 134 of the MGA are exempt from this Policy.

9.0 Purchase and Sale Agreement

9.1 The following conditions may be included in a purchase and sale agreement:

a. Deposit:

i. a 10% deposit against the final purchase price within specified timeline of an accepted offer.

ii. any deposit shall be returned to the purchaser, without interest, if the Town fails to fulfil the Terms of the Purchase and Sale Agreement.

iii. any deposit shall be forfeited should the purchaser fail to complete the sale in accordance with the Terms of the Purchase and Sale Agreement in addition to any other rights, costs or damages that the Town may otherwise be entitled to.

b. Sale of the property shall be completed within specified timeline of an accepted offer.

c. Construction Timelines:

i. if construction of a development is relevant to the sale of the property, the Purchase and Sale Agreement may require that Commencement of Construction shall be not later than a specified timeline from the Date of Closing.

ii. if construction of a development is relevant to the sale of the property, the Purchase and Sale Agreement may require the Development to be completed no later than a specified timeline from the Date of Closing.

9.2 Purchase and Sale Agreements should, if applicable, include clear direction related to any buy-back provisions. If any buy-back provisions are incorporated within the Purchase and Sale Agreement, the Agreement shall layout the provisions to recoup any costs associated with returning the lot to its original pre-purchased condition.

10.0 Real Estate Broker

10.1 The CAO may decide, at the CAO discretion, to use the services of a real estate broker.

10.2 The following conditions may be included in a real estate broker agreement:

a. Commission:

i. the percentage of the real estate commission;

ii. the timeline when the real estate commission is payable to the broker within a specified timeline of closing.

b. Municipal Liability:

i. a clause regarding, if for any reason, the transaction does not close, the Town is not responsible for the payment of the real estate commission nor is the Town liable for any other payments, penalty, action, or future consideration to the broker.

11.0 CAO Responsibilities

11.1 The CAO may, at the CAO discretion, negotiate and include additional items not in conflict with any specific provisions of this Policy in consideration of the best interest of the Town. The CAO may seek legal advice in the drafting of the terms and conditions of the Purchase and Sale Agreement and/or the Real Estate Broker Agreement.

11.2 The CAO may, at the CAO discretion, consider a variance in price in the Purchase in Sale Agreement, in accordance with the MGA.

11.3 The CAO may, at the CAO discretion, obtain the services of a real estate broker.

11.4 The CAO may, at the CAO discretion, obtain the services of a legal firm in order to execute the divestiture of Town lands.

11.5 The CAO may, at the CAO discretion, approve and/or amend the provisions and/or terms of a Purchase and Sale Agreement and/or the Real Estate Broker Agreement, in accordance with the MGA.

12.0 Effective Date

12.1 This Policy shall come into force and effect on the date of its passing by Council.

Appendix A

Land Profile Evaluation Tool

1. Specify the location and area of the land (i.e. civic address, PID #, survey).
2. Specify the monetary value of the land (assessed/appraised value).
3. What form of access is there to the property? (public road, private road, easement).
4. Does the property have any known contamination/environmental concerns based on the previous environmental studies, if any, or does an environmental assessment need to be conducted?
5. Does the property have any architectural, historical, or recreational value?
6. Does the property have any ecological/conservation value?
7. Has fair Market Value for the land been determined?
8. Is the land adjacent or nearby water (river, lake, ocean)?
9. Is the land already in use? Is there a lease agreement in place?
10. Are there any known public concerns relating to the divestiture of the property?
11. Is there possible future liability/gain (i.e. useful site in future, or site features such as erosion that suggest any divestiture would result in a liability)?
12. Has an electrical scoping evaluation taken place?
13. Do stakeholders such as nearby landowners, community associations, and/or members of the public need to be consulted?

Document No:
Meeting: September 13, 2022
Circulate: Council, JD, HM,
File:

MEMORANDUM

TO: TOWN COUNCIL

FROM: ARTHUR MACDONALD, DIRECTOR OF COMMUNITY DEVELOPMENT

DATE: AUGUST 12, 2022

RE: APPOINTMENT AS DEVELOPMENT OFFICER

1. FACTS

We are currently in the process of building the new Department of Community Development. One step in this process is the designation of our Planning Technician, Trevor Hume, as our Development Officer under the Municipal Government Act (MGA). According to Section 243 of the MGA, a Development Officer shall be appointed by Council to administer its land-use by-law and subdivision by-law. The purpose of this report is to appoint Trevor Hume as the Town's Development Officer under the MGA.

Trevor is a member of the Development Officer's Association of Nova Scotia (MDOANS) and is currently undertaking his certification as a General Development Officer under MDOANS. Trevor will also remain as the Town's Planning Technician and will be assigned a new title – Planning Technician/Development Officer with a new job description.

Please note that the Director of Community Development will remain appointed as the Town's Development Officer to help facilitate the functionality of the Community Development Department and to fill in as needed from time to time; to cover for vacations and general absenteeism.

2. ANALYSIS

No analysis for this request is deemed necessary.

3. FINANCIAL IMPACT

It is anticipated that there would be an increase in salary associated with this appointment. However, there are sufficient funds available for this revised position.

4. **STRATEGIC PLAN RELEVANCE**

The re-organization of the Town's departments and the creation of the Department of Community Development is in keeping with the Town's Comprehensive Community Plan, in particular:

Governance:	Direction to enhance internal and external relations through policies, procedures, and resources.
-------------	---

5. **RECOMENDATION**

It is recommended that the Town appoints Trevor Hume as the Town's Development Officer.

Motion: Moved by and seconded by that the Town hereby appoints Trevor Hume as the Town's Development Officer in keeping with Section 243 of the MGA.

Submitted by:

Arthur MacDonald
Director of Community Development

Date: _____

Acknowledged only by:

Jamie Doyle
CAO

Circulated: _____

Document No:

Meeting: COUNCIL – Sept. 13th, 2022

Circulate To: Council, JD, LD, HM

File:

MEMORANDUM**TO: TOWN COUNCIL****FROM: ARTHUR MACDONALD, DIRECTOR OF COMMUNITY DEVELOPMENT****DATE: AUGUST 4, 2022****RE: UPPER KING STREET DESIGN SCENARIOS****1. FACTS****A. Background**

The Town issued a Request for Proposals (RFP) for the development of design scenarios for Medium Density Residential (RM) and Higher Density Residential (RH) proposals for Upper King Street. The Town was fortunate to receive seven (7) proposals as outlined below (**Attachment A - G**):

**Town of Lunenburg
Upper King St Extention Development TOL2022016
Proposal Submissions**

Company	Price	HST	Total
Abbott Brown Architects	\$ 54,450.00	\$ 8,167.50	\$ 62,617.50
IBI Group Architects (Canada) Inc.	\$ 39,962.00	\$ 5,994.30	\$ 45,956.30
WSP Canada Inc.	\$ 74,490.00	\$ 11,173.50	\$ 85,663.50
MacKay-Lyons Sweetapple Architects	\$ 62,050.00	\$ 9,307.50	\$ 71,357.50
CBCL Limited	\$ 55,829.00	\$ 8,374.35	\$ 64,203.35
Fathom Studio	\$ 38,300.00	\$ 5,745.00	\$ 44,045.00
ZZAP Consulting Inc.	\$ 57,035.00	\$ 8,555.25	\$ 65,590.25

Staff reviewed the submissions and ranked them according to the ranking system of the RFP. The top three (3) were invited for an interview with the Project Team (the Town's Management Team). The three (3) consultants chosen for the interviews were:

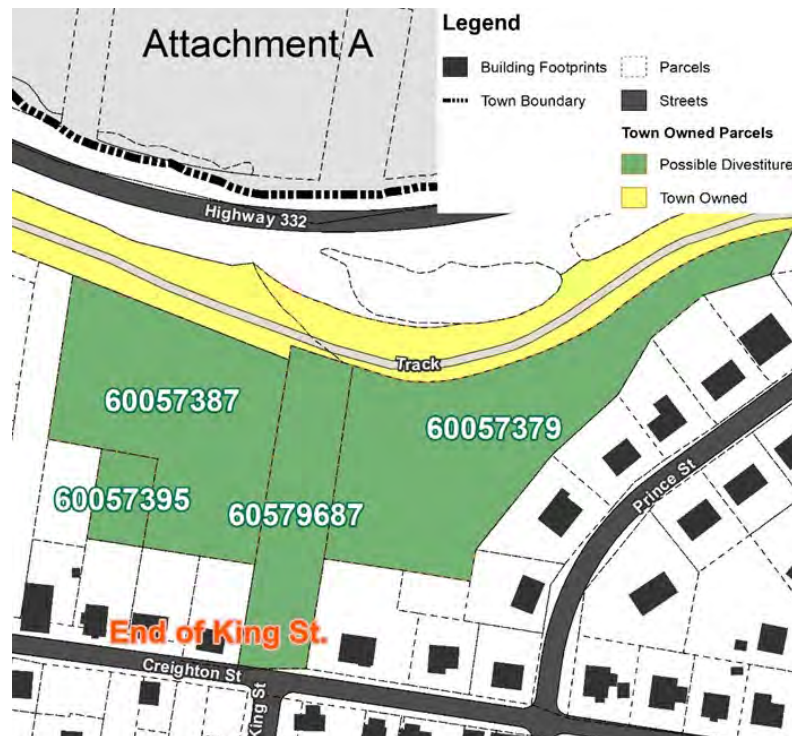
Mackay-Lyons Sweetapple Architects	88.0%	\$62,050.00 plus HST
CBCL Limited	88.5%	\$55,829.00 plus HST
ZZAP Consulting Inc	89.5%	\$57,035.00 plus HST

Please note that MacKay-Lyons Sweetapple has revised their proposed budget and is attached on the last page of their submission in **Attachment D**. Their budget remains at \$62,050.00 plus HST with no additional costs associated with reimbursement expenses such as printing, plotting, copying, courier, travel expenses and/or vehicle usage. Julian Smith (Heritage Consultant) remains as an additional expense as shown on the last page of **Attachment D**.

Following the interviews, the Project Team selected ZZAP Consulting Inc. to undertake the design scenarios for \$57,035.00 plus HST (net HST is \$59,500).

B. Proposal

The proposal is to have design scenarios developed for RM and RH Use Zones for the Upper King Street area in-keeping with the Town's Comprehensive Community Plan, Municipal Planning Strategy, Land Use By-law and Subdivision By-law. The subject lands are shown below:



The RFP is enclosed in **Attachment H**. Two (2) design scenarios will be developed for the RM use zone and two (2) design scenarios will be developed for the RH use zone. It is intended that Council will hold a Public Information Meeting to present and discuss the design scenarios with the public prior to Council releasing an Expression of Interest to developers to purchase the lands and develop said lands in accordance with the development scheme chosen by Council. The consultants have been requested to include a covenant proposal as a means of ensuring the successful developer follows through with the approved development scheme.

2. **OPTIONS**

At this stage we wish to have Council approve the consultant and the budgetary amount to initiate the design scenarios. Three (3) options for Council's consideration are outlined below:

1. That Council approves ZZAP Consulting Inc. to undertake the Upper King Street RFP proposal at the cost of \$57,035.00 plus HST (net HST is \$59,500).
2. That Council approves another consultant to undertake the Upper King Street RFP proposal at the cost of _____ plus HST.
3. That Council considers putting the project on hold to reconsider at a future meeting.

3. **FINANCIAL IMPACT**

The fiscal 22-23 Capital budget includes \$110,000 for Studies for the Planning of Improved Utilization of Assets and the Disposition of Assets. Site planning for Upper King Street is included in this capital budget.

ZZAP Consulting Inc. submission including net HST is \$59,500.

4. **STRATEGIC PLAN RELEVANCE**

This project is in-keeping with the Town's Comprehensive Community Plan, in particular:

Community Structure: Direction regarding how the town will be structured and how land will be used.

Heritage: Direction to protect and enhance existing heritage assets and to support a wider cultural narrative.

Urban Design: Direction to enhance residents' and visitors' experience of the built environment.

5. **RECOMMENDATION**

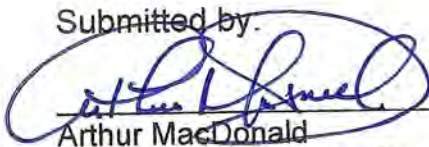
It is recommended that Council approves ZZAP Consulting Inc. to undertake the Upper King Street RFP proposal at the cost of \$57,035.00 plus HST (net HST is \$59,500) as outlined in **Attachment G**.

Motion: moved and seconded that Council approves ZZAP Consulting Inc. to undertake the Upper King Street RFP proposal at the cost of \$57,035.00 plus HST (net HST is \$59,500) as outlined in **Attachment G**.

ATTACHMENTS:

- A. Abbott Brown Architects
- B. IBI Group Architects (Canada) Inc.
- C. WSP Canada Inc.
- D. MacKay-Lyons Sweetapple Architects
- E. CBCL Limited
- F. Fathom Studio
- G. ZZAP Consulting Inc.
- H. Request for Proposal (RFP)

Submitted by:

A handwritten signature in blue ink, appearing to read 'Arthur MacDonald', is written over a horizontal line.

Arthur MacDonald

Director of Community Development

Date: August 12/2022.

Acknowledged by:

Jamie Doyle
Town CAO



Town of Lunenburg: Upper King Street Extension Development

Business Coordinator
Town of Lunenburg
119 Cumberland Street
Lunenburg, NS B0J 2C0

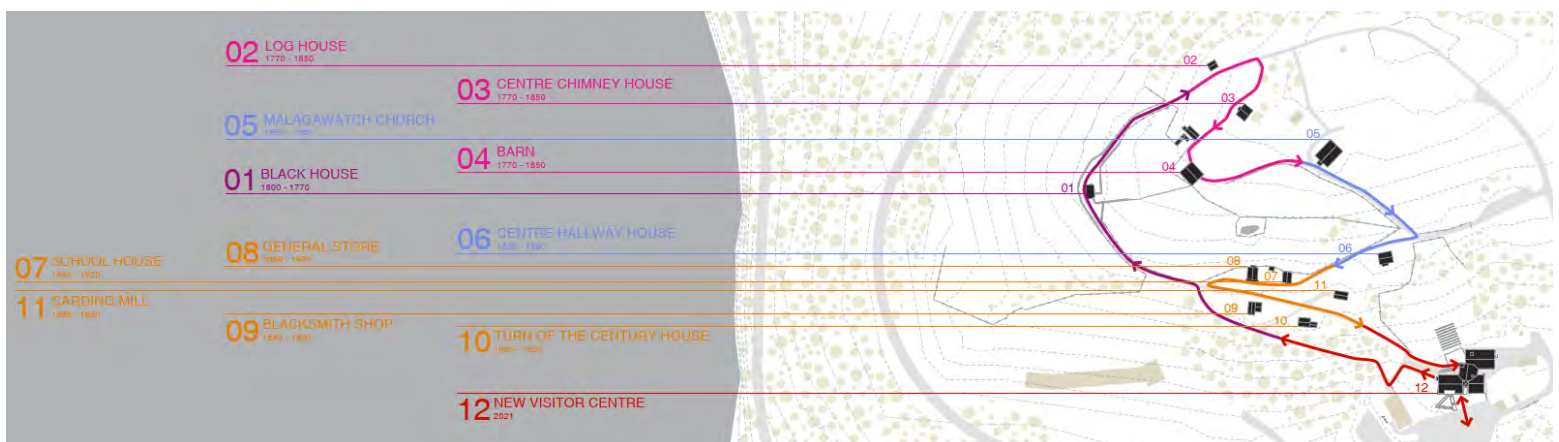
RFP# TOL2022016
Submitted June 30, 2022

Respondent Name: Abbott Brown Architects Incorporated
Address: 5657 Cornwallis Street, Halifax NS, B3K 1B6
Contact: Alec Brown
Telephone No: 902 405 8877
Fax No.: N/A
Email: alec@abbottbrown.ca

**ABBOTT
BROWN**

“WORKING WITH ABBOTT BROWN WAS A REAL DELIGHT. THEY ENGAGED AND CHALLENGED US TO THINK - BOTH AT TIMES METHODICALLY AND AT TIMES Laterally. AND WE FELT WE HAD AN ARCHITECT WHO GENUINELY UNDERSTOOD, EVEN WHEN IT CAME TO THE MOST ARCAINE ASPECTS OF CURATORIAL PRACTICE. THOUGH THE PROJECT TOOK A GREAT MANY TWISTS AND TURNS, THEY WERE UN-FAILINGLY ENGAGED, AND EVER-READY WITH NEW ENERGY AND NEW IDEAS. THE FINAL PRODUCT IS DUE TO THEIR EFFORTS.”

-Peter Dykhuis
Curator, Dalhousie Art Gallery



Highland Village Visitors Centre, Site Planning, Abbott Brown Architects

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TOWN OF LUNENBURG
KING STREET EXTENSION DEVELOPMENT
REQUEST FOR PROPOSALS

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**ABBOTT
BROWN**

June 29, 2022

Town of Lunenburg
119 Cumberland Street
Lunenburg NS B0J 2C0

Attn: Business Coordinator

Town of Lunenburg RFP #TOL2022016

We are very pleased to submit our proposal for consultant services for the Upper King Street Extension Development

Abbott Brown Architects is a firm with a reputation for strong, functional design and a sensitivity to the user experience in all their work. All our work remains grounded in two principles: 1) A life-long interest in deeply rooted Nova Scotian architectural typologies; and 2) advocacy of bold, functional, public-focused design which can uplift and respect users and visitors alike. For us these remain powerful ways in which design can be a responsible steward of both the natural and the cultural landscape.

Abbott Brown has built two houses in Lunenburg's Old Town, both garnering design awards. The success of both projects is on the back of intense research into local architectural and land-use languages, their lineage and meanings, historically and in today's context. This research-focused approach to planning and design in Nova Scotia is something we apply to our work both as design teachers in the Dal Architecture Faculty and in our own studio. The public projects we have undertaken exhibit a similar respect for embedded fabric and context, while still emphasizing functionality and overall design impact.

For this project we have joined forces with Upland planning+design Studio and Able Engineering to constitute a team with both substantial professional experience and localized project understanding.

Any work within the Town must engage with its compelling existing urban and architectural patterns. And yet, building form in Lunenburg has always evolved to respond to contemporary functional needs – from the many Victorian outbuilding/shops to the large fisheries buildings. We can simultaneously be sensitive and bold, integrated and inventive. We can solve new problems in new ways while still echoing Lunenburg's long heritage of identity and typological specificity. And we can do so with a spirit of innovation and aspiration in keeping with past achievements.

The proposed King Street Extension is a tantalizing opportunity to explore the team's jointly-held areas of interest. It is a project we, along with our team of consultants, would be very excited to have the opportunity to work with you on.

Thank you for the opportunity to submit this proposal.

Yours sincerely,

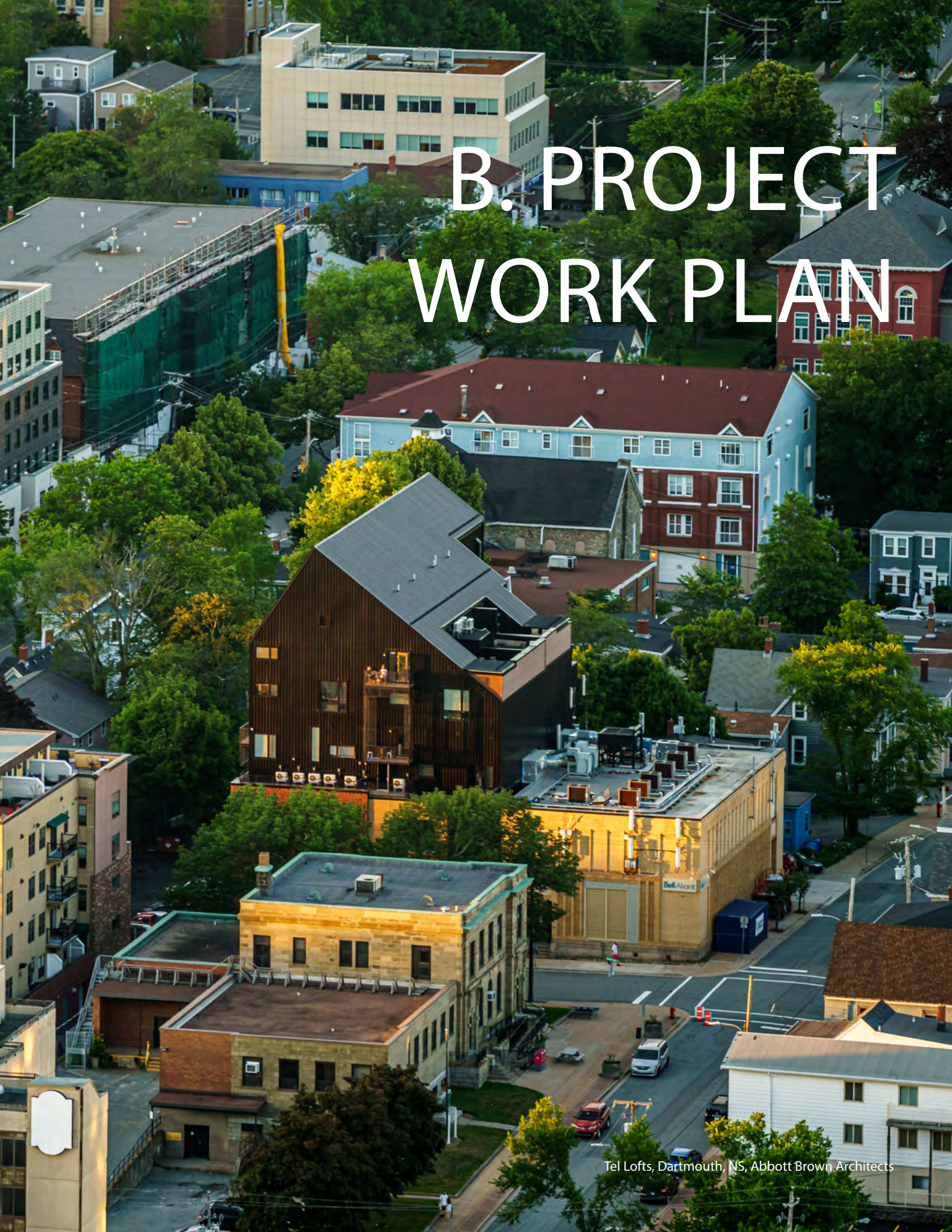


Alec Brown
NSAA

Jane Abbott
NSAA LEED AP
Alec Brown
NSAA LEED AP

5657 Cornwallis St
Halifax, NS, B3K 1B6
902 405 8877

abbottbrown.ca

An aerial photograph of a city street scene. In the center, a modern building with a steep, dark wooden gabled roof and large glass windows is prominent. To its right is a large, multi-story building with a red roof and blue and red siding. In the foreground, there are several older, multi-story buildings with brick and stone facades. A street with cars and a crosswalk is visible at the bottom. The text "B. PROJECT WORK PLAN" is overlaid in large white letters across the upper half of the image.

B. PROJECT WORK PLAN

STATEMENT OF UNDERSTANDING

ORDER AND DELIGHT

Over the long arc of Lunenburg's growth up to recent times, two circumstances set the Town apart: The first, as celebrated by UNESCO, is the original, preserved rectangular street grid with distinct use zones. The second is an engagement and pride in construction detail - along with periods of wealth to support it - which has given us not just the famous Bump, but other repeated motifs, each lavishly iterated and reiterated across the townscape and across generations.

Throughout the Town, adjacent structures on identical colonial lots burst with individualized personality and period identity. Instances of architectural embellishment present rampant eccentricity, but always within strict formal codes. Within the street plan itself, qualities of order and absurdity co-exist as streets extend straight up the steepest of hills. In each case, the presence of strict frameworks gives an ideal, comprehensible context for the offsetting splendour of artistic expression. Much of the appeal of the Old Town is founded in the dance between regimentation and

expressive freedom. In the later half of the 20th Century this balance weakened in both aspects. The Prince/Hopson loop adjacent to the King Street site breaks too completely with the adjacent context. Around town, larger multi-unit structures have struggled to find a harmony with the established fabric. And the civic pride and ambition evident in earlier craftsmanship has levelled off.

Our conviction is that new infill and development should recapture both the overarching orders and frameworks which have made Lunenburg so cohesive, and the long-held spirit of civic identity and design innovation. This does not mean slavishly repeating historical forms and patterns, but it behooves us to both understand and respect the work of past generations - and to apply the same dedication and open-minded problem-solving approach to a new set of needs.

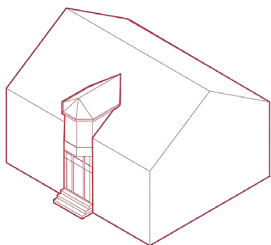
CONTEMPORARY APPROACHES FOR NEW CAPACITIES

This exercise is about finding that most delicate balance between order and creative vitality - between

the still-vibrant Lunenburg urban context, and the particular aspirations at this time and for this land. The brief for this development is distinct.

The new Comprehensive Community Plan, together with the Municipal Planning Strategy, encourage a much needed increase in density and use through the range of housing options available. It offers a vision for future development which can complement the town's traditional vernacular, while allowing for growth and opportunity for new built forms in the identified Residential Expansion Areas. In addition to maintaining this connection to the existing built form, is also this notion of ensuring connectivity to the public street and designing this landscape in a way that is free of barriers and accessible to all users - no matter the use, age, or ability.

The emphasis will be on non-single family dwelling modes. The topography is steep, and we no longer ignore the barriers this creates. The site is also visually separated from the bulk of the Old Town, which may offer opportunities to reset planning logics alongside the different program needs.



bay window bump



simple bay window bump
60° angle equal lengths



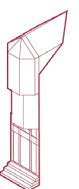
simple bay window bump
45° angle equal lengths



bay window bump w/eaves
45° angle equal lengths



2-storey bay window bump
45° angle equal lengths



staggered bay window bump
45° angle equal lengths

DETAILED WORK APPROACH

PRE-DESIGN

The Pre-Design work establishes a complete and agreed context for the design work to follow. We will take sufficient time to get to know the site and broadly collect and assess project limitations and opportunities before the design work starts.

Statutory Document Review

- Thorough interpretation of Town's CCP and MPS in the context of the site;
- Review of Town's Land Use By-Law, incl. assessment of opportunities and restrictions;
- Review of NS Bldg Code & Fire Code for relevant requirements;
- Assessment under upcoming Coastal Protection Act restrictions;
- Due diligence review of all other applicable legislation & Authorities Having Jurisdiction.

Project Start-up Meeting

- Review of core project drivers, aspirations;
- Discussion of project program: densities, mix, etc.
- Review and access to Town resources
- Update on Heritage Conservation Plan & By-Law;
- Confirmation of Schedule and Deliverables;
- Discussion / establishment of metrics for success.

Site Data Collection

- Land survey & lidar (drone) survey capturing site topography and identifying all existing site features, built and natural;
- Preliminary assessment of geotechnical conditions and ecological constraints;
- Assessment of environmental conditions: solar exposure through seasonal changes; prevailing winds; views, ideal forms of land use.

Context and Infrastructure Assessment

- Contextual review of WHS Outstanding Universal Values and NHS's Statement of Significance;
- Cultural/Architectural consideration of site context and adjacencies;
- Opportunities for using the existing ecology;
- Assessing information on adjacent town servicing infrastructure, connections, capacities: sanitary, storm, fire hydrant, power, telecom;
- Assessment of transport & walking connections, strategic proximities, amenities and axes.

Evaluation and Opportunities

- Site Accessibility review and strategic explorations by in-house Rick Hansen-certified staff;
- Review of likely construction approaches & costs;
- Survey of recent best-practice projects globally addressing similar developments;
- Understanding of best progressive approaches for active circulation & 'complete' street design.

Requested Town Resources:

- Municipal servicing plans
- Street design & other civil engineering standards
- Any other reports, parameters
- Land ownership information
- Projected overall timelines

Additional / Optional Tasks:

At the Town's discretion, the design team could organize collection of public input regarding the potential land development through direct engagement, open houses, and/or passive channels. This would carry an additional cost

DESIGN APPROACHES

The Concept Design work builds upon understandings developed during the Pre-Design stage. Through the design process, the shape of the problems confronted and how they intersect with one another becomes the iterative framework for generation of effective solutions. Our approach is to be doggedly open-minded and lateral-thinking, in order to give space for the best answers to emerge.

Site Design Charette

- Multi-disciplinary charette with Architect, Landscape/Planners and Civil;
- Development of site plan options for street layout and plan articulations, addressing connectivities, accessibility, infrastructure tie-ins;
- Collection and assessment of widest-possible range of design opportunities for innovative, blank-slate approaches to green-field planning
- Distillation into a select number of high-potential design strategies

Architectural Parameters

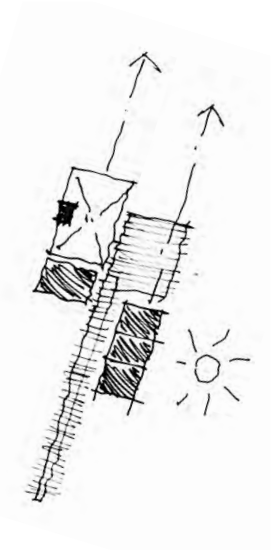
- Review of Town zoning contexts
- Consideration of the impact the proposed development could make as a positive chapter in the story of built form in Lunenburg: opportunities to broaden and deepen architectural identity.
- Likewise, identification of risks and limitations to avoid contradicting the existing context and diminishing the sense of place and cohesion.
- Investigations into viable building typologies: what could higher-density residential look like within an evolving, living Lunenburg building language.

Synthesis and Review

- Overlaying and testing together of leading site design and architectural options;
- Initial blocking-out of options;
- Assessments of restrictions due to lot shape and topography, and their impact on viability of different approaches;
- Iterative return to high-level design review, and re-tooling of strategies within context of increasing awareness of parameters;
- Re-newed development of synthesized approaches which increasingly address overall context.

Initial Design Ideas

- Distillation of emerging viable design approaches into a set of (multiple) proposals;
- Filtering of proposals within parameters of Medium Density vs High Density Use Zones.
- Preparation of drawings for review;
- Meeting with Town to discuss design findings, potential solutions, initial scheme options;
- Discussions, review and feedback from Town.



Requested Town Resources:

- 3D Sketch-Up town model
- Town involvement and review of initial scheme options

Also: potential consideration of waiving 10% open space designation to incentivise affordable units & in light of challenging topography?

CONCEPT DESIGN

This Phase follows the intentionally broad-scope work of gathering information in Pre-Design and testing ideas and solutions through Design Approaches. In Concept Design the focus shifts to refinement and deepening of identified directions and opportunities.

Concept Design - Draft Stage

- Multi-disciplinary charette with Architect, Landscape/Planners and Civil;
- Review of feedback from Town on initial design options;
- Identification of optimal design frameworks for two options each for RM and RH Use Zones;
- Design of street, public space and (potentially) lot layouts;
- Design of building volumes overall;
- Exploration of viable, Code-compliant floor plan configurations and resultant densities;
- Ongoing assessment of Accessible Design opportunities and targets;
- Ongoing assessment of opportunities for affordable housing.
- 3-D Modelling; consideration of sunlight, views, public/private balance;
- Consolidation into four draft design options

Draft Design Options

- Completion of plans, site sections/elevations and 3-D massing models for each of the four options;
- Creation of 3-D rendered views of each scheme;
- Meeting with Town to present options, and to discuss relative emphases, pros and cons of each approach;
- Review and feedback from Town.

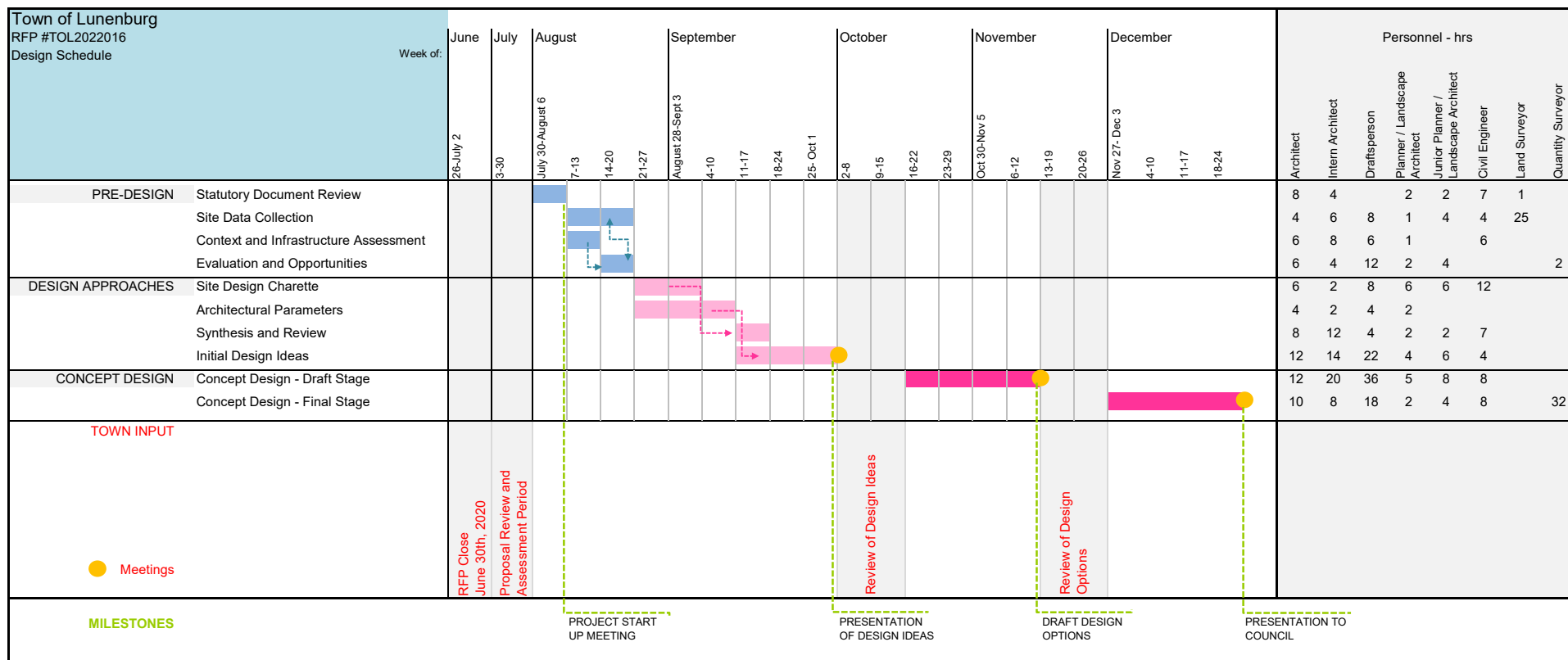
Concept Design - Final Stage

- Review of feedback from Town on draft design options;
- In-house best-practice review of designs and feedback in context of original project aspirations and metrics;
- Design review and modifications;
- Liaison with Town regarding final project parameters and deliverables;
- Continued Concept Design work at all scales;
- Completion of revised plans, site sections/elevations, civil and landscape plans for each of the four options;
- High-Level estimating of the four options by Quantity Surveyor
- Revised 3-D renderings of each scheme.
- Writing of full Concept Design report incl all of the above.
- Presentation to Council.

Additional / Optional Tasks:

At the Town's discretion, Additional 3-D architectural renderings could be produced to further describe and promote the particular options. This would carry an additional cost.

GANTT CHART W/ ASSIGNED PERSONNEL





C. EXPERIENCE & QUALIFICATIONS

Gottingen Street, Abbott Brown Architects



KEY STAFF MEMBERS
ALEC BROWN, ARCHITECT,
NSAA, LEED AP

Alec Brown grew up in Nova Scotia, and attended the University of St. Andrews, Scotland, and the Technical University of Nova Scotia. He worked with several leading architectural offices in Vancouver, London and Berlin, before returning to Nova Scotia, working for several years with WHW Architects. He currently is a Principal of Abbott Brown Architects.

In London with McDowell+ Benedetti Architects, much of Alec's work involved contemporary renovations and restorations to existing buildings. Among other projects, he worked on designs for the expansion of the Working Men's College, the Lewisham (London) Transport Master Plan, and the Coin Street (London) Community Centre and Neighbourhood Re-development (competition – shortlisted).

In Berlin, Alec was joint project architect through the design and

approvals stages on the extension to Toronto's Royal Ontario Museum.

The common focus of this experience has been around developing clear functional design solutions for intricate, demanding community projects which by nature involve juggling the requirements of clients with those of planning restrictions, costs, and the limitations of the existing fabric.

This work ties in to a life-long interest in heritage architecture and preservation, which itself has led to previous work with the Heritage Foundation of Nfld and Labrador, new houses in the Lunenburg UNESCO heritage district, and restoration projects for, among other clients, Dalhousie University, the Confederation Centre of the Arts in Charlottetown and the Maritime Museum in Halifax.

In Nova Scotia, Alec worked with WHW Architects on masterplan exercises for Capital Health and HRM. He has undertaken Facility Assessments for the NS Museum of Natural History multiple hospital buildings and private clients.

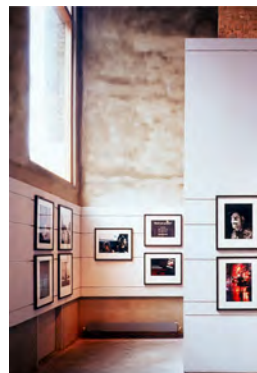
With Abbott Brown, Alec worked with **Dalhousie University** on a diverse range of projects, including renovations to the architecture lecture hall, offices, laboratories, and public buildings.

He has worked on dozens of other public and institutional projects including multiple community centres, mixed-use complexes, gallery renovations, and new infill constructions. He has taught at the Dalhousie School of Architecture, and is currently a member of the Board of Registration of the NSAA.

Alec's particular interest in the built fabric of Lunenburg has led to invited talks to organizations including the National Trust for Canada. He maintains a family home in Lunenburg.



MARITIME MUSEUM OF THE ATLANTIC, HALIFAX



PHOTOGRAPHERS GALLERY, LONDON



BYRE HOUSE, SOUTH SHORE



KEY STAFF MEMBERS
JANE ABBOTT, ARCHITECT,
LEED AP

Jane has been an registered architect in Nova Scotia since 2011. Prior to registration she worked at a number of larger architecture and design firms in Canada and in Denmark. Jane has LEED certification and is familiar with Passive House strategies aiming for net zero buildings.

Prior to becoming partner at ABA Jane was part of teams designing award winning facilities in the Province of Nova Scotia- libraries, sports and rehearsal spaces as well as small housing projects.

EXPERIENCE W/ CIVIC AND HOUSING PROJECTS

Since the establishment of Abbott Brown, Jane has been Project Architect for a number of award winning projects for the city of Halifax, Develop Nova Scotia, and private houses throughout the province. All projects involve extensive design facilitation with the client and, for public projects, stakeholders,

balancing the intersection of public spaces with staff or private areas.

Many of these projects involve the re-purposing and activation of new and re- imagined public space.

Renovations to **Musquodoboit Library and Community Hub**, winner of the Mayor's Prize in Architecture, was completed in 2017. With an area of 8,500 sf and 0.8 M budget, it was a renovation that demanded careful considerations around scope and materials. The project was completed within budget constraints and has seen an increase in user-ship of 250%. Jane has overseen the accessibility requirements at Woodside Ferry Terminal, 349 Herring Cove Road, and **Common Works Truro**.

Jane has worked on a number of landmark historic buildings in Halifax, Lunenburg, and Truro, which have required heritage review. **Halifax City Hall Renovations** is the recipient of an Lieutenant Governor Award and a Mayor Award for architecture.

Currently Jane is the Project Architect for renovations to the **Dartmouth North Community Centre** which will have genderless washrooms, and a new multipurpose space for youth dance and performances.

She is also design lead **CommonWorks Phase 3**, a residential development in Truro, as well as private houses in Kingsburg and Petite Riviere.

Public, Multipurpose Buildings

Highland Village Visitors Centre (under construction): 8,000 SF
Dartmouth North Community Centre, (under construction): 14,000 SF
Musquodoboit Community Hub (Mayor's Award): 8,500SF
Zatzman Sportsplex (LGA award): 100,000 sf
Woodside Ferry Terminal: 7,000 sf
Alderney Pedway (LGA award): 3,000 SF
Alderney Gate Library (under construction): 3,000 SF
Confederation Centre of the Arts, Charlottetown PEI
Halifax City Hall Renovations: 4,500 sf (Mayor's, LG Award)
Common Works, Truro, NS: 35,000 sf

Houses and Heritage Projects

The Bump House, Lunenburg, UNESCO World Heritage Site (LGA award)
Byre House, Lunenburg (LGA award)
Big Boat Shed, Lunenburg, UNESCO World Heritage Site
Sallyway House, Halifax c.1860
Common Works Phase 1, Truro, c.1875



MUSQUODOBOIT COMMUNITY HUB



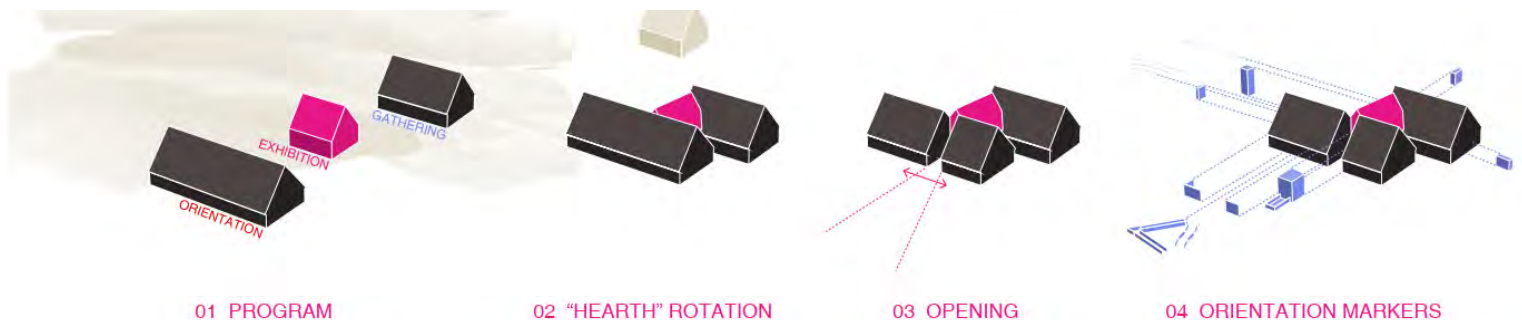
COMMON WORKS HERITAGE RESTORATION



ALDERNEY GATE PEDWAY PUBLIC SPACE

“WE REQUIRED A DESIGN THAT IS BOTH OPEN AND SECURE, WELCOMING AND CONTROLLABLE, AND ABOVE ALL ONE WHICH OUR YOUTH, WHO MAY REACT NEGATIVELY TO MORE TYPICAL INSTITUTIONAL ENVIRONMENTS, EMBRACE AS THEIR OWN. WE ALSO ASKED THAT THE DESIGN BE A DYNAMIC AND IMPRESSIVE STATEMENT OF OUR ETHOS AND OUR PRESENCE IN THE COMMUNITY. IN MEETING WITH OUR STAFF AND MANY OF OUR USERS, LISTENING, AND WORKING VERY HARD THROUGH EVOLVING DESIGN IDEAS, ABBOTT BROWN BROUGHT US ALL TO A POINT WHERE WE FEEL THRILLED BY THE FINAL DESIGN. HE HAD A WONDERFUL ABILITY TO COALESCE OUR OWN RANDOM REQUIREMENTS AND CONCERNS INTO CLEAR ARCHITECTURAL IDEAS WHICH WERE MORE FUNCTIONAL AND ACCOMMODATING THAN WE HAD THOUGHT POSSIBLE.”

-Sarah Maclaren,
Leave Out Violence

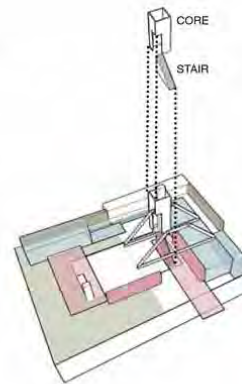
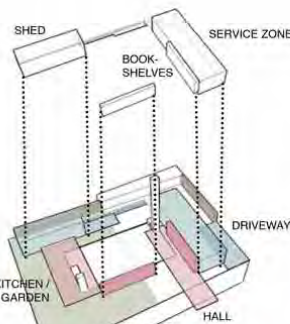
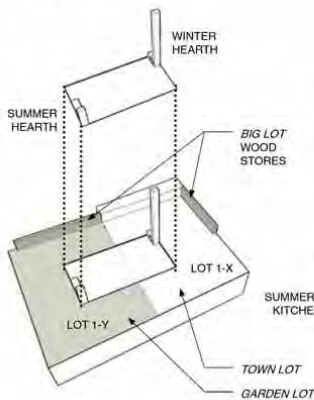


Highland Village Visitors Centre, Design Strategy, Abbott Brown Architects

BUMP HOUSE, LUNENBURG, NS



PROGRAM ON SITE:



TYPOLGY ON SITE:

TRADITIONAL LUNENBURG
"BUMP" CAPE HOUSE FORM
AS UNESCO HERITAGE
DISTRICT GUIDELINES

EAVE FACADE ROTATES TO FACE GARDEN.
GABLE ENDS ORIENTS TO N/S VIEWS.

LUNENBURG
BUMP REMAIN
ON STREET
FACADE

SOLAR CHIMNEY
DISTRIBUTES LIGHT,
HW, AIR, INTERNAL

EAVE ELEVATION
DISSOLVES TO GARDEN

LOFT
BEDROOMS

CLIENT NAME: Bryon Rogers and Claudette Fortin

CONSTRUCTION VALUE: \$0.6 M

COMPLETION DATE: March 2015

CONSULTANT TEAM:

Lead consultant and Architects: Abbott Brown Architects

Structure: Doncaster Engineering

Mechanical & Electrical: Coordinated by D.R.Risser

Landscape: Heritage Landscaping Services

The Bump House is an example of how we approach a design that is situated in such a rich historical context, like Lunenburg. Located within the UNESCO Heritage District, this project, was only the second architect-designed house built within the district since its inception - the first was also designed by our office, in 2009.

Reacting to and celebrating this strong context, the project is a study and re-interpretation of local typologies, and their antecedents.

What the design attempts to do is to re-imagine and re-deploy many qualities of the Lunenburg bump house / Cape house form in the context of a very contemporary program, and attitude

to space and detail resolution.

As such, the project is not a design exercise in isolation; it is intended to contribute to both the existing architectural context, and the living, rich history of the town and the local typologies.

THE COMMON WORKS PHASE 1&2, TRURO, NS



CLIENT NAME: Queen's Realty

CONSTRUCTION VALUE:

Phase 1: \$2.12M, Phase 1.2: \$860,000, Phase 2: \$2.72M

PROJECT COMPLETION:

Phase 1 December 2019, Phase 1.2 March 2020,

Phase 2 October 2021

CONSULTANT TEAM:

Lead consultant and Architects: Abbott Brown Architects

Structural: Rural Roots

Mechanical & Electrical: MCW Maricor

Landscape: Gordon Radcliffe Landscape Architect

The Common Works is a phased renovation and addition to an existing heritage building and city block in down town Truro, Nova Scotia. The block, which sits prominently at the town's old commons park, was in a poor state of repair. Abbott Brown were hired to design the renovations to the registered heritage building at the street corner and then, in the next stage, the adjoining buildings.

The project's name 'Common Works' references the Commons across the street and 'works' a nod to Truro's history of manufacturing and craft production.

The heritage building is known as the R.J. Turner building built around 1875.

The renovations bring the building back to its former street corner presence with projecting roof/cornice detail, large storefront windows and the re-established symmetrical geometry of the windows on second and third floors.

The new sash windows are single-hung aluminum clad wood, proportioned to reflect the original geometry of the building. The windows are trimmed with wood at all sides, with a cornice detail at the head.

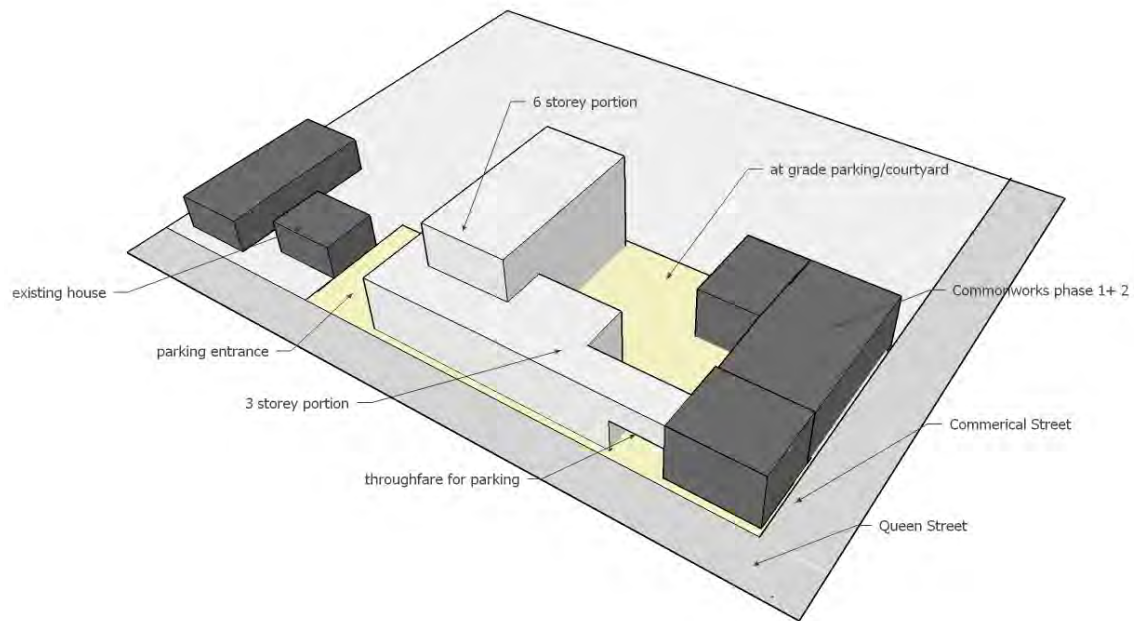
Prior to renovation the building was clad in vinyl siding. It now has 4" wide painted wood clapboard reflecting the original character of the building. There are new wood corner boards

on all sides of the building with wood trim detail at the head. A columnar detail on the Commercial Street façade to re-present the original building character.

This building, along with the subsequent adjoining additions, house retail tenants on the ground floor with offices above. The new building has universal access with a new elevator and accessible washrooms. The heritage building was made accessible with a new exterior ramp.

The project has been recognized by the Town of Truro for heritage excellence and urban renewal with an award in 2022.

THE COMMON WORKS PHASE 3, TRURO, NS



CLIENT NAME: Queen's Realty
CONSTRUCTION VALUE: 13 M
PROJECT ONGOING
CONSULTANT TEAM:

Lead consultant and Architects: Abbott Brown Architects

The Common Works Phase 3 is a proposed residential building planned on Queen Street in Truro and shares the same site as Common Works Phases 1-2. For this stage of the work Abbott Brown were asked to explore different possible building massing options, different residential unit configurations (ie studio, 1 bedroom, 2 bedroom etc..) and potential cladding and formal

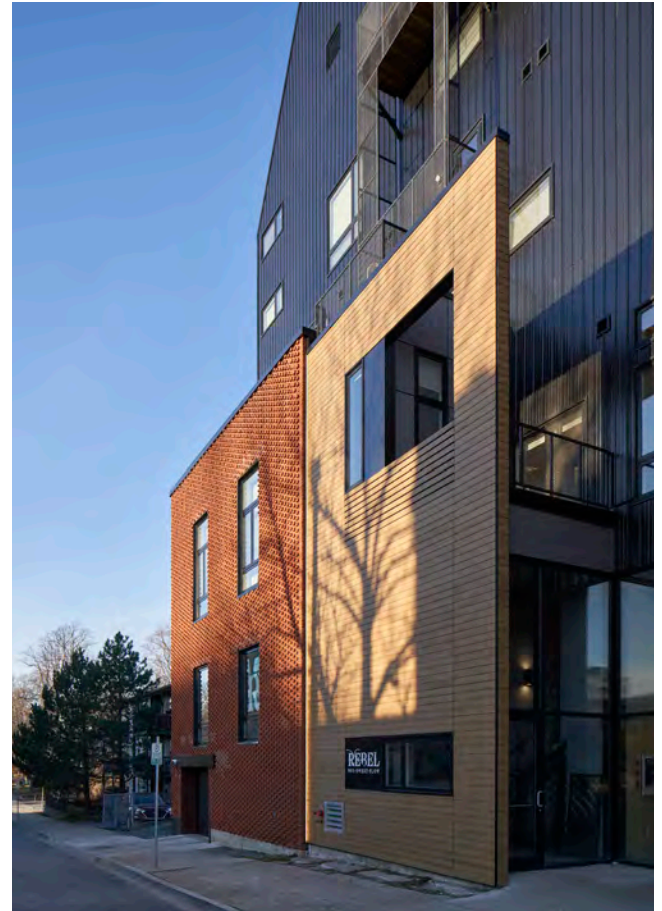
responses to these options.

As with much of our work we took inspiration from the town's existing building stock as well as the industrial brick heritage exemplified by the Stanfield Underwear Factory Building located in the town's centre.

We undertook detailed review of the city's zoning bylaws with respect

to parking, setbacks and height restrictions. While the site currently has an unrestricted height limit we designed the building to a height that is respectfully of the character of the neighbourhood as well as the experience of the future residents in the residential units.

TEL LOFTS, DARTMOUTH, NS



HRM Urban Design Award, in 2021

CLIENT NAME: Bruno Builders

CONSTRUCTION VALUE: 3.5 M

COMPLETION DATE: September 2019

CONSULTANT TEAM:

Lead Consultant and Architect: Abbott Brown Architects

Structural: SANI Engineering

Electrical: Electec Engineering Inc.

Mechanical: M. Lawrence Engineering Ltd.

Situated in Downtown Dartmouth, Tel Lofts is a long story of tenacity and belief shared between an owner/developer who saw opportunity in a decrepit urban-industrial shell, and architects who saw potential to present a new impression of multi-unit residential urban design in that challenging existing context.

Abandoned and left to decay for 15 years, the original two-storey mid-century structure had been a MT&T switching hub for Dartmouth. The extant shell, with its 16ft high ceilings, large windows, and its gritty and variegated concrete and mass masonry textures is kept intact and exposed wherever possible, inside and out.

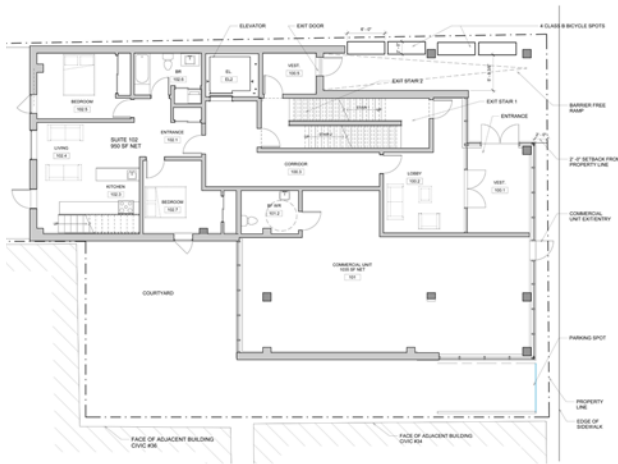
Atop the existing structure a new addition provides two upper stories of double-height loft apartments. The roof is steeply pitched, and the overall impression, is of a new residential form rising out of and re-vitalizing the old industrial location. Balconies of metal frame and mesh attach here and there like stitches animating and tying together the whole.

At the entrance, the newer section of existing street front wall and part of the building behind have been removed to let the public sidewalk realm spill directly into a new inner courtyard. Framing the courtyard are a new inner open glass entry wall to the building proper, a freestanding original masonry wall with materials

left bare, and, to the street. A 32-foot high wood-clad wall giving the impression of a giant sliding 'urban door' left invitingly open.

The addition of 24 unique accessible loft-style rental units, varying from 450ft² micro-lofts to 1, 100ft² 2/3 bedroom lofts on a previously vacant and unsafe industrial site has revitalized a previously blighted, dangerous location, supporting the growth of a vibrant, livable downtown per the goals of the Downtown Dartmouth Planning Strategy. The development further appeals to the priorities to increase the local resident population and its stress on encouraging young professionals to move to the area.

61 QUEEN STREET, DARTMOUTH, NS



CLIENT NAME: Bruno Builders

CONSTRUCTION VALUE: 8 M

COMPLETION DATE: On Hold

CONSULTANT TEAM:

Lead consultant and Architects: Abbott Brown Architects

Structural: Sani Engineering

Abbott Brown were hired to design a new residential building on a tight city lot in downtown Dartmouth. The owner wanted to maximize the views to the water, the potential for 'loft' type apartments as well as welcoming street front retail units at grade.

The proposed building has a red brick central core- a nod to the brick buildings in Dartmouth - with a cantilevered third story that frames the entry to a proposed below grade parking garage.

A set back of the building at the street level allows for a public 'porch' and gathering space for the tenants to wait and socialize and keep out of the rain. The setback from the street of more than 2' also allows for a wide double door barrier-free access at building entry. This open area has bicycle parking at the street.

Because of the narrow site an interior scissor stair allows for two fire exits from the building without giving up valuable floor space.

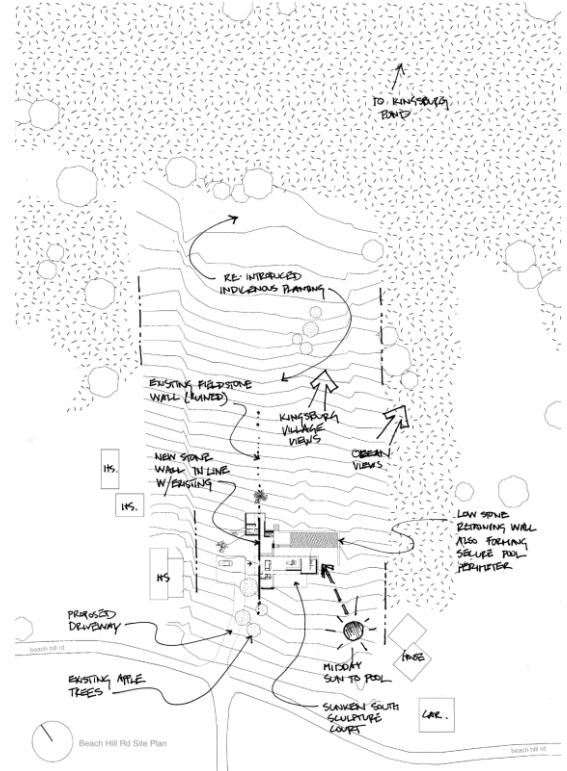
The residential units are a mix of 1 bedroom and 2 bedroom units.

Most of the units are designed as lofts with double height space in the living areas and a stair to a loft space above, suitable for a bedroom or office. All units will have access to either a balcony or an outdoor landscaped roof space off of the units. All units have integrated laundry areas and access to a high roof top zone- a shared amenity and outdoor space.



CLIENT NAME: WITHHELD
CONSTRUCTION VALUE: 1.4 M
PROJECT NOT YET COMPLETED
CONSULTANT TEAM:

Lead consultant and Architects: Abbott Brown Architects



The Beach Hill Road site is one marked by several distinguishing features: a sloped grade; a phenomenal view of the ocean to the east; another lovely view to the north east of Kingsburg village; the ruins of an existing fieldstone wall; and 2 groves of older apple trees, which are most likely a remnant of the site's past historic use as an apple orchard.

Working in conjunction with this are your key programme elements: the pool, the art collection and a sense of elegance and implied privacy in the design.

The proposed design allows the existing apple trees to remain by weaving the new house around them. While the introduction of a new stone wall element reinforces the memory of the older stone ruins. This stone wall, which runs down the slope at the apple grove, marks the new

entry to the house from the parking area along the west of the site. The new stone wall, together with other freestanding walls, create new possibilities for exterior and interior spaces for art and sculpture.

Like the 50's California Case Study precedents, the proposed house design has an 'L' form plan, framing interior spaces around a water element, the pool. The pool will capture early and midday sun, and simultaneously present a tranquil view from the dining kitchen areas or the living area. We can use the slope of the land such that the pool's east boundary has an infinity edge, doubling as an enclosure required for insurance purposes.

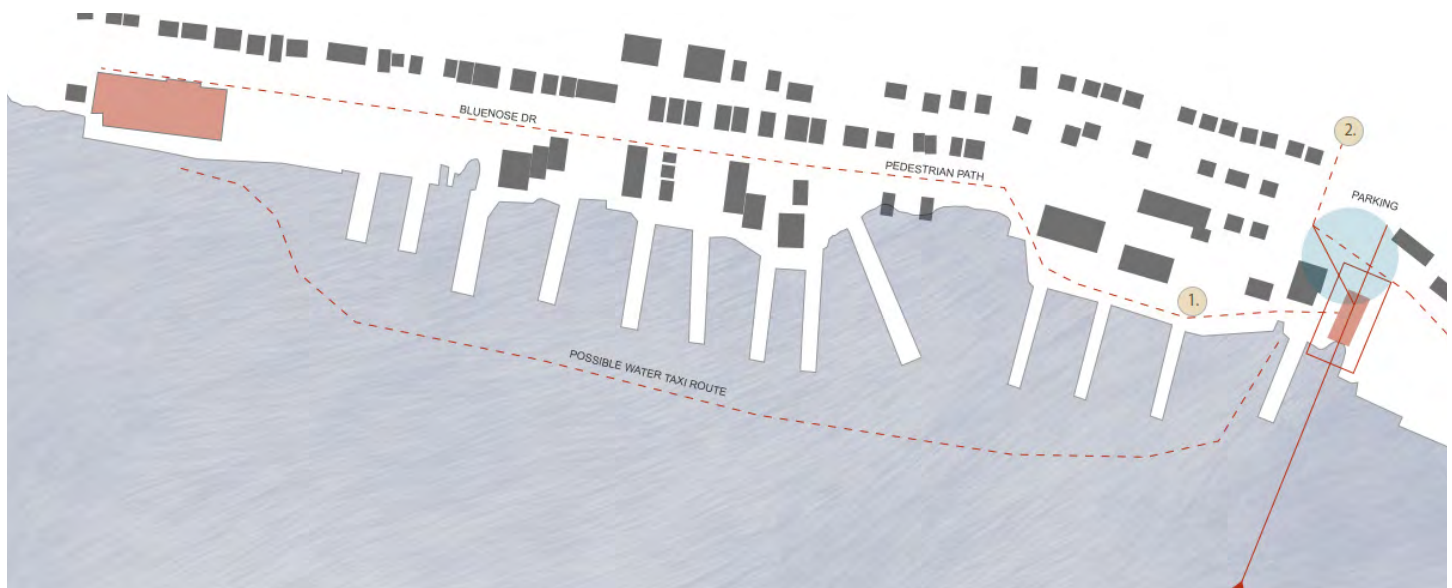
The 'L' plan allows principle bedrooms and the guest bedrooms to be at opposite sides of the house, maximizing privacy. The principle

bedroom faces out towards the village; the guest bedroom is connected to the kitchen wing. A third Library/ Study offers additional flexibility.

We have used the slope of the land to create a sunken quasi-Japanese sculpture court to the south, and to thereby lower and screen the house from the road. We have otherwise worked with the slope such that the house steps down the hill, with the down-slope bedroom elevated above the land on stone walls like a dovecote.

The site analysis, was the main driver of the design, organizing the program, dictating important views, and embracing the historic elements.

BIG BOAT SHED, ZWICKER BUILDING LUNENBURG, NS



POINT OF ENTRY TO SITE



POINT OF ENTRY TO SITE



IMMEDIATE CONTEXT TO CONSIDER

CLIENT NAME: Waterfront Development and Lunenburg Marine Museum Society

INITIAL BUDGET: 2 MILLION:

PROJECT COMPLETE: 2017

CONSULTANT TEAM:

Lead consultant and Architects: Abbott Brown Architects

Structural: Able Engineering

Abbott Brown Architects were hired to re-imagine an existing heritage boat building shed. in Lunenburg, Nova Scotia. The building is an existing structure with unique wood framing and is situated on the waterfront.

Analysing the surrounding site and

the various access points to the building were critical to envisioning its new purpose and program.

The shed was redesigned to facilitate a new adjunct exhibition and hands-on learning space for the existing Fisheries Museum in Lunenburg.

Abbott Brown facilitated the programming studies with museum staff and stakeholders. A set of drawings and concept renderings were assembled such that the client could apply for ACOA funding.



LAKE VIEW RESIDENCE

Location
Whycomagh, NS

Date
Design: 2017

Client
Private

Service Area(s)
Landscape Architecture, Residential Design

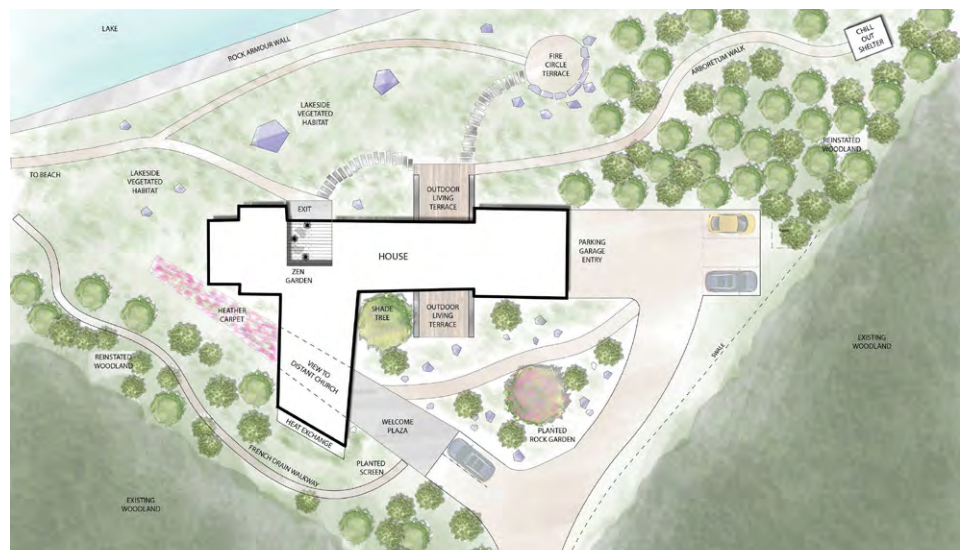
References
Rayleen Hill
RHA+D
63 King Street
Dartmouth, NS
B2Y 2R7

UPLAND designed the new landscape surrounding a beautiful contemporary home overlooking the Bras d'Or Lake in Cape Breton.

The design featured a driveway that opens to an entrance courtyard and views through the house to the lake beyond. The courtyard features a Nova Scotian take on a Japanese style garden with granite boulders, gravel and specimen evergreen shrubs and grasses. The guest parking leads to a 'Welcome Plaza' with views through the house,

across a new heather carpet, towards the church in the distance. The courtyard also features a south-facing outdoor living space with decking that extends the house into the landscape and rock filled gabion seating.

Lakeside, gravel paths to the beach, a firepit area, and a secluded lookout and reading terrace, cut through swathes of new native woodland and lakeside groundcovers. All new planting is low maintenance and located to not restrict views.





“PROJECT LUNENBURG” COMPREHENSIVE PLAN

Location

Lunenburg, Nova Scotia

Date

2019 - 2021

Client

Town of Lunenburg

Service Area(s)

Comprehensive Planning, Community Engagement, Planning Policy, Land Use Regulations

References

Dawn M. Sutherland, MCIP, LPP
Former Manager of Planning and Development
Town of Lunenburg
Tel: 902-625-2019

Project Lunenburg was a process for creating a Comprehensive Community Plan and reviewing and updating the Town’s planning documents. UPLAND was hired by the Town to guide this major two-year project that defined community goals and aspirations, and charted a course that got community efforts moving in a shared direction.

The Town’s previously existing Municipal Planning Strategy and Land Use By-law were adopted in 1996 and periodically updated as required. While these documents guided the development of the community, they were limited in their ability to influence aspects of the community beyond land uses and new building development.

Council and the community took a more holistic look at the future of Lunenburg so that decisions about parks and public spaces, utility investments, arts programming, public buildings,

streetscaping, transportation infrastructure, architectural design, collaboration, and land use all supported a shared vision.

Community input was at the core of Project Lunenburg, with over 400 people participating in the formative stage of the process, including 150 attending a workshop on housing. Consultation was delivered online, through outreach, with interviews, and in monthly public meetings on key topic areas. The topics were supported with a Discussion Paper providing background information and broader context, and a What We Heard Report that summarizes the community input.

The final outcomes for the Comprehensive Plan included guiding objectives, spatial plans, priorities for implementation, and a new MPS and LUB, adopted in July 2021. Project Lunenburg received the 2021 Planning Excellence Award for Comprehensive Policies and Plans from the Atlantic Planners Institute.



**NEW OLDE TOWN HILLS DEVELOPMENT
BRIDGEWATER, NS**

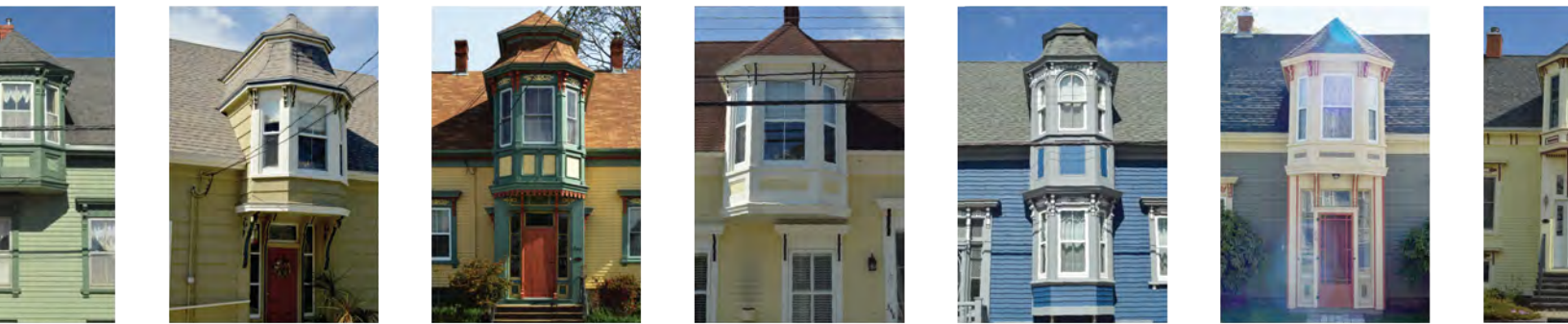
The new Olde Town Hills Development in Bridgewater, on the old golf course property, where a new infill housing project is under construction on a steep sloped property overlooking the Town. Here, ABLE Engineering integrated the storm-water management plan and infrastructure into what will be a centrepiece park, with ponds that function as storm-water peak flow management, storm-water treatment, and provide an aesthetically pleasing focus for a local neighbourhood park.

**ROUTE 3 STREET-SCAPE MASTERPLAN
CHESTER, NS**

The Route 3 Street-scape Masterplan for the Village of Chester: ABLE Engineering developed a Low Impact Design (LID) strategy for storm-water management, and the Landscape Architect/Designers wired it into the design concept.

**POINT PLEASANT PARK MASTERPLAN
HALIFAX, NS**

For the Point Pleasant Park Masterplan, Able Engineering worked out a means of dealing with erosion of shoreline trails, and also a reduction slope erosion.



from: Study of Instances and Development of the Lunenburg Bump Abbott Brown Architects



REFERENCES

RENOVATIONS TO CITY HALL OFFICES

Halifax Regional Municipality
John MacPherson, Project Manager
Address: 88 Alderney Drive, 3rd Floor, Dartmouth Ferry Terminal, Dartmouth, NS
T. 902.209 0763
Years: 8 years
Project Completion: October 2018
Contract value: 1.1 million

THE COMMON WORKS

Queens Realty
Jamie Bagnell, Owner
Address: 1 Commercial Street, Truro
T.: 902.899.2849
Years: 5 years
Project Completion: September 2021, and ongoing new work
Contract value: 3.5 M

MUSQUODOBOIT LIBRARY AND COMMUNITY HUB

Halifax Regional Municipality
Bogdan Hadlaw, Project Manager
Address: 88 Alderney Drive, 3rd Floor, Dartmouth Ferry Terminal, Dartmouth, NS
T. 902.490 6050
C. 902.225 5877
Years: 9 years
Project Completions: Dartmouth North Community Centre ongoing; Dartmouth Ferry Terminal Renovations 2015; Musquodoboit Library 2018
Contract values: Dartmouth North Community Centre 2.3M; Dartmouth Ferry Terminal Renovations .9M; Musquodoboit Library 0.8M





D. RESOURCES

PROPOSED TEAM:

	ROLE	FIRM	STAFF, QUALIFICATIONS	CHARGE OUT RATE
KEY CONTACTS	Prime Consultant & Architect	Abbott Brown Architects	Alec Brown, BED, MA, MArch, NSAA, LEED AP	\$130/hr
	Planner/Landscape Architect	Upland I Planning + Design	Steffan Käubler, MCIP, LPP	\$130/hr
	Civil Engineer	ABLE Engineering Services Inc.	Jeff Pinhey, MASc, PEng	\$150/hr
	Land Surveyor	ABLE Engineering Services Inc.	Jeff Pinhey, MASc, PEng	\$100/hr
	Quantity Surveyor	Q-Solv	Mark Gardin, PQS(F), MRICS	\$120/hr
OTHER PERSONNEL				
	Intern Architect	Abbott Brown Architects	Karen Mills, BED, MArch, NSAA, RHFA*	\$90/hr
	Draftsperson	Upland I Planning + Design	Leanna Letterio, BCD, BED, MArch, NSAA	\$65/hr
	Junior Planner/Landscape Architect	Upland I Planning + Design	Nathan MacLoed, APALA, CSLA, LPP, MCIP	\$110/hr

*Rick Hansen Foundation Accessibility Certification (professional designation pending)

NOTE: SEE ALSO CURRICULUM VITAE FOR MORE INFORMATION

**“THE ABBOTT BROWN TEAM ARE
MORE THAN JUST OUR ARCHITECTS,
THEY WERE OUR PARTNER IN
TRANSFORMING OUR
PROGRAMS AND SERVICES TO MEET
THE EVER EVOLVING NEEDS OF
OUR COMMUNITY.”**

- Max Chauvin, General Manager,
Zatzman Sportsplex

Work Experience:

2013-present	Principal, Abbott Brown Architects
2009-2013	Principal, Alec Brown Architect
2003-2009	WHW Architects, Halifax, NS
2001-2003	Studio Libeskind, Berlin, Germany
2001	Huw Owen Architects, London, UK
1997-2001	McDowell+Benedetti, London, UK
1993-1997	Peter Reese Architects, Vancouver, BC

Education:

1991-1993	Master of Architecture, Technical University of Nova Scotia, Halifax, NS
1989-1991	Bachelor of Environmental Design, Technical University of Nova Scotia, Halifax, NS
1985-1988	Master of Arts, University of Saint Andrews, Saint Andrews, Scotland

Selected Projects:

Cultural Sector:

Confederation Centre of the Arts Expansion, Charlottetown, PEI
Maritime Museum Ships Chandlery, Halifax, NS
Yukoan Centre for Japanese Tea Ceremony, Nova Scotia
Dalhousie Arts Centre Renovations, Halifax, NS
Annapolis Royal ArtsPlace, Annapolis Royal, NS
Pier 21 Museum of Immigration Upgrades, Halifax, NS
Highland Village Museum, Iona, Cape Breton, NS

Public / Institutional:

Zatzman Sportsplex Renovations, Dartmouth, NS
Halifax Commons Aquatic Facility, Halifax NS
DHX Media Studios, Halifax, NS
The HUB open office and multi-purpose venue, Halifax
Common Works Mixed use, Truro, NS
Renovations, Prince Andrew High, Dartmouth, NS
Transportation Planning Co-laboratory, Dalhousie University
Dalhousie Faculty of Architecture Main Lecture Hall, Halifax
Coin Street Community Centre and Redevelopment, London, UK
MRI / Angiography /CT wing, Dickson Building, Halifax
London Homeless Centre, London, UK
Capital District Health Authority Masterplan, HRM
Henry Hicks Building Renovations, Dalhousie

Residential:

Numerous projects, NS, NB, ON

Accreditation / Memberships:

Registered Architect in Nova Scotia, PEI, New Brunswick
Member & Past Registrar, Nova Scotia Association of Architects Board of Registration
LEED Accredited Professional (Building Design and Construction)

Awards

2021	Halifax Urban Design Awards
2018, 20, 21	Mayor's Award in Architecture
2020, 21	Canadian Interiors Design Awards
2014, 15, 17, 19, 21	Lieutenant Governor's Award for Design in Architecture
2013	20+ Change, Top 20 Canadian Emerging Designers

Work Experience:

2013-present	Principal, Abbott Brown Architects
2005-2012	WHW Architects, Halifax, NS
2004	William Nycum Architects, Halifax NS
2002	WH Architects, Toronto, ON

Education:

2003-2005	Master of Architecture, Technical University of Nova Scotia, Halifax, NS
2001-2003	Bachelor of Environmental Design, Technical University of Nova Scotia, Halifax, NS
1992-1996	Master of Design in Costume, Copenhagen, Denmark

Selected Projects:

Cultural Sector:

Confederation Centre of the Arts Expansion, Charlottetown, PEI
Highland Village Museum, Iona, Cape Breton
Renovations to Halifax City Hall, Halifax NS
Alderney Gate Pedway Revitalization, Dartmouth, NS
Musquodoboit Community Hub, Musquodoboit, NS
Harbour East Community Council, Dartmouth, NS
Dalhousie Art Gallery Renovations, Halifax, NS
Weldon Law Building Art Space Planning, Dalhousie, Halifax, NS
Zwicker Building Renovations Schematic Design, Lunenburg, NS
Big Boat Shed Renovation Feasibility Study, Lunenburg NS

Public / Institutional:

DHX Media Studios, Halifax
Woodside Ferry Terminal Recapitalization, Dartmouth, NS
Common Works Mixed use, Truro
Canada Games Centre Renovations, Halifax, NS
Zatzman Sportsplex, Dartmouth NS
Dartmouth Ferry Terminal Renovations, HRM, Dartmouth, NS
Dalhousie Weldon Law Building Art Space Planning, Halifax, NS
Renovations and Space Planning Wolfville School, Wolfville, NS
Tiny Lab Daycare, Halifax, NS
Bedford High School, Bedford, NS (with WHW Architects)
Bluenose Academy, Lunenburg, NS (with WHW Architects)
Ecole du Sommet, Bedford, NS (with WHW Architects)

Numerous residential projects, NS, Ont.

Accreditation / Memberships:

Member, Association of Architects, Nova Scotia, PEI, New Brunswick
Sessional Professor, Dalhousie School of Architecture
Board Member North End Business Association
LEED Accredited Professional

Awards

2021	Urban Design Awards
2020	Canadian Interiors Design Awards
2018, 20, 21	Mayor's Award in Architecture
2014, 15, 17, 19, 21	Lieutenant Governor's Award for Design in Architecture
2005	Henry Adams AIA Award Recipient, NSAA Thesis Prize

KAREN MILLS INTERN ARCHITECT

BEDS, M.ARCH

Rick Hansen Foundation Accessibility Certification (professional designation pending)

PART D
II. RESUMES

2.3

Work Experience:

2020 - present Intern Architect, Abbott Brown Architects, Halifax, NS
2019 Student Designer, Office of McFarlane Biggar, Vancouver, BC
2017 Student Intern, Abbott Brown Architects, Halifax, NS

Education:

2018 - 2020 Master of Architecture, Dalhousie University, Halifax, NS
2016 - 2018 Bachelor of Environmental Design Studies, Dalhousie University, Halifax, NS
2011 - 2013 Business Administration: Marketing, NSCC, Dartmouth, NS
2010 Graphic Design, NSCC, Dartmouth, NS
2009 Applied Communication Arts, NSCC, Dartmouth, NS

Selected Projects:

Architecture:

Private Residence, Kingsburg, NS
Private Residence, Petite Riviere, NS
Halifax Commons Aquatic Project. Halifax NS
Alderney Gate Pedway Revitalization, Dartmouth, NS
Halifax City Hall Municipal Clerk's Office Renovation, Halifax, NS
Confederation Centre of the Arts, Charlottetown, PEI
Highland Village New Visitors Centre, Iona, NS
TelLofts, Dartmouth, NS
Alderney Gate Phase 2, Dartmouth, NS
Zatzman Sportsplex, Dartmouth, NS
Oppenheimer Park Pavilion Renovation and Expansion, Vancouver, BS

Barrier-Free Accessibility:

Alderney Gate Phase 2, Dartmouth, NS
Halifax Commons Aquatic Project. Halifax NS

Other:

Conwest Head Office (Interiors), Vancouver, BC
Zatzman Sportsplex Revitalization (Signage), Dartmouth, NS
Halifax Commons Aquatic Project (Signage). Halifax NS

Accreditation / Memberships:

Member, Nova Scotia Association of Architects
Rick Hansen Foundation Accessibility Certification Training

Work Experience:

2022 – present Intern Architect, Abbott Brown Architects, Halifax, NS
2021 Designer, Eric Stotts Architect, Halifax, NS
2020 Architectural Research Assistant, MBE Lab, Dalhousie University, Halifax, NS
2020 Student Designer, Sauerbruch Hutton, Berlin, DE
2018 Student Designer, FRANK Architecture & Interiors, Calgary, AB

Education:

2019 – 2021 Master of Architecture, Dalhousie University, Halifax, NS
2017 – 2019 Bachelor of Environmental Design Studies, Dalhousie University, Halifax, NS
2014 – 2017 Bachelor of Community Design Studies, Dalhousie University, Halifax, NS

Selected Projects:

Cultural Sector:

Confederation Centre of the Arts Expansion, Charlottown, PEI
Museum of Exile (Competition), Berlin, DE

Public Sector:

Dalhousie School of Architecture Lecture Hall, Halifax, NS

Private Residential:

House on Intervale Road, Margaree Forks, NS
Backyard Granny Suite, Timberlea, NS
House on the Hill, Calgary, AB

Accreditation / Memberships:

Member, Nova Scotia Association of Architects

Curriculum Vitae

Steffen Käubler MCIP, LPP

Planner
Urban Designer
Partner

63 King Street
Dartmouth, Nova Scotia B2Y 2R7
+1 902 412 2457
steffen@uplandstudio.ca

**PROFILE**

Steffen Käubler draws on over 19 years of experience as an urban planning and design consultant in Atlantic Canada. His education in Architecture (Vordiplom, Technical University of Dresden, Germany), Business Administration (Bachelor, University of Hagen, Germany), and Urban Planning (Master's Degree, Dalhousie University), has afforded him the ability to work on a wide variety of urban planning and design projects. Building on his regulatory and design education, Steffen has developed an expertise as a planner and designer with a keen interest in bridging the gap between planning policy and physical design. Steffen has provided strategic advice to many public and private sector clients on infrastructure planning, urban design, land use planning and active transportation.

Steffen's expertise and reputation in the industry is highlighted by the granting of eight national planning and design awards, among them the highest honors by both the Canadian Society of Landscape Architects and the Canadian Institute of Planners.

MEMBERSHIPS + AFFILIATIONS

- + Canadian Institute of Planners
- + Atlantic Institute of Planners
- + Licensed Professional Planners of Nova Scotia
- + Council for Canadian Urbanism

EDUCATION

Dalhousie University
Masters in Urban Planning
Halifax, Nova Scotia

Aalto University
Diploma in Urban Design
Helsinki, Finland

Hagen Correspondence University
Bachelor in Business Administration
Hagen, Germany

Technical University of Dresden
Bachelor of Architecture (Vordiplom)
Dresden, Germany

PREVIOUS WORK EXPERIENCE

CBCL Limited 2006-2013
Land Use Planner and Urban Designer

EDM Environmental Design & Management 2003-2006
Land Use Planner and Urban Designer

RECENT AWARDS + RECOGNITION

Regional Award of Planning Excellence 2021
Comprehensive Policies + Plans (Atlantic Planners Institute)
Project Lunenburg

Regional Award of Planning Excellence 2017
Comprehensive Policies + Plans (Atlantic Planners Institute)
Halifax Centre Plan

Regional Award of Planning Excellence 2017
Outreach + Public Engagement (Atlantic Planners Institute)
Glooscap First Nation Family Recreation and Culture Park
Concept Plan

Regional Award of Planning Excellence 2015
Comprehensive Policies + Plans (Atlantic Planners Institute)
Active Avon: An Active Transportation Plan for the Avon Region

Regional Award of Planning Excellence 2015
Outreach + Public Engagement (Atlantic Planners Institute)
Town of Paradise Plan Review

National Award of Planning Excellence 2013
Neighbourhood Planning (Canadian Institute of Planning)
Port aux Basques Downtown Design Study

Regional Award of Planning Excellence 2013
Physical Plans + Designs (Atlantic Planners Institute)
Conception Bay South Main Street Improvement Plan

Regional Citation Award 2013
Canadian Society of Landscape Architects
O'Brien Farm Historic Site Master Plan

Regional Award of Planning Excellence 2012
Physical Plans + Designs (Atlantic Planners Institute)
Riverview Built Form and Urban Design Guidelines

National Honour Award 2007
Canadian Society of Landscape Architects
Grand Parade/Province House Joint Public Lands Plan

PROJECT EXPERIENCE**Comprehensive Planning**

+ New Minas Secondary Planning Study Municipality of the County of Kings New Minas, Nova Scotia	2021	+ Highway 102 Corridor Lands Secondary Planning Susie Lake Developments Halifax, Nova Scotia	2015
+ Inverness Growth Management Strategy Municipality of the District of Inverness Inverness, Nova Scotia	2020	+ Municipal Plan and Development Regulations Town of Conception Bay South Conception Bay South, Newfoundland	2011
+ Charlottetown Growth Management Strategy City of Charlottetown Charlottetown, Prince Edward Island	2020	+ Corner Brook-Humber Valley Regional Plan NL Department of Municipal Affairs Corner Brook-Humber Valley, Newfoundland	2009
+ CBS Plan Review Town of Conception Bay South Conception Bay South, Newfoundland	2019	+ HRM Business Parks Functional Plan Halifax Regional Municipality Halifax, Nova Scotia	2008
+ Project Lunenburg (Comprehensive Plan) Town of Lunenburg Lunenburg, Nova Scotia	2019	+ Shearwater Planning Project Canada Lands Company Shearwater, Nova Scotia	2008
 2021 Award in Planning Excellence Comprehensive Planning and Policies (Atlantic Planners Institute)		+ Corner Brook-Humber Valley Regional Plan NL Department of Municipal Affairs Corner Brook-Humber Valley, Newfoundland	2009
+ Hillside Secondary Plan Town of Rothesay Rothesay, New Brunswick	2019	+ Port-to-Port Corridor Study Cape Breton Regional Municipality Sydney, Nova Scotia	2007
+ Potlotek First Nations Land Use Plan Potlotek First Nations Chapel Island, Nova Scotia	2018	 2009 National Citation Award Canadian Society of Landscape Architects	
+ Subdivision By-law Review District of Lunenburg Bridgewater, Nova Scotia	2018	Urban Design / Master Planning	
+ Secondary Planning Strategy and Land Use By-Law Halifax Regional Municipality Downtown Halifax, Nova Scotia	2017	+ Stratford Community Campus Plan Town of Stratford Stratford, Prince Edward Island	2021
+ Halifax Centre Plan Halifax Regional Municipality Halifax Urban Core, Nova Scotia	2015	+ Stratford Waterfront and Core Area Plan Town of Stratford Stratford, Prince Edward Island	2020
 2017 Award in Planning Excellence Comprehensive Planning and Policies (Atlantic Planners Institute)		+ Oxford Street Properties Master Plan Canada Lands Company Halifax Peninsula, Nova Scotia	2019
+ Paradise Plan Review Town of Paradise Paradise, Newfoundland	2015	+ Halifax Common Master Plan Halifax Regional Municipality Halifax Urban Core, Nova Scotia	2018
 2015 Award in Planning Excellence Outreach and Public Engagement (Atlantic Planners Institute)		+ Cape d'Or Master Plan Municipality of Cumberland Advocate Harbour, Nova Scotia	2018
		+ Glooscap Family Culture and Recreation Park Design Glooscap First Nation Sipekne' Katik (Kings County), Nova Scotia	2017

PROJECT EXPERIENCE (CONTINUE)

+ Fundy Discovery Site Master Plan Municipality of Colchester/Town of Truro Truro, Nova Scotia	2017	 2011 Regional Merit Award Canadian Society of Landscape Architects	
+ Colindale Beach Master Plan Private Developer Port Hood, Nova Scotia	2017	+ Hants West Business Park Master Plan Hants West RDA Hants, Nova Scotia	2010
+ Cable Wharf Conceptual Designs Waterfront Development Halifax, Nova Scotia	2015	+ Torbay Industrial Park Master Plan Town of Torbay Torbay, Newfoundland	2010
+ The Lakes Master Plan Susie Lake Developments Halifax, Nova Scotia	2015	+ Grand Parade/Province House Joint Public Lands Plan Halifax Regional Municipality Halifax, Nova Scotia	2006
+ Picco Ridge Development Concepts Town of Paradise Paradise, Newfoundland	2015	 2007 National Honour Award Canadian Society of Landscape Architects	
+ Bloomfield Centre Redevelopment Plan Housing Nova Scotia Halifax, Nova Scotia	2014	+ Bayview Estates Subdivision Master Plan Private Developer Corner Brook, Newfoundland	2007
+ Downtown Dartmouth 3D Modeling Scenarios Halifax Regional Municipality Dartmouth, Nova Scotia	2014	+ Conceptual Design Donkin Community Centre Donkin Residents Association Donkin, Nova Scotia	2007
+ O'Brien Farm Master Plan O'Brien Farm Foundation St. John's, Newfoundland	2012	+ Concept Plan for Dunfield Park Revitalization NL Housing Corporation Corner Brook, Newfoundland	2007
 2013 Regional Citation Award Canadian Society of Landscape Architects		+ Masterplan Woodside Knowledge Park Nova Scotia Innovation Corporation Halifax, Nova Scotia	2006
+ Berry Hills Phase 8 Development Armco Capital Lower Sackville, Nova Scotia	2013	+ Stewiacke Business Park Master Plan Colchester Regional Development Agency Truro, Nova Scotia	2005
+ Land Suitability and Residential Concept Plan Town of Happy Valley Goose Bay Happy Valley Goose Bay, Newfoundland	2011	+ Harbourside Business Park Master Plan Sydney Steel Corporation Sydney, Nova Scotia	2005
+ South Battery Pier Open Space Concept Waterfront Development Corporation Halifax, Nova Scotia	2011	+ Corey Estates Subdivision Master Plan Destiny Homes Halifax, Nova Scotia	2005
+ Charlottetown Airport Master Plan Charlottetown Airport Authority Charlottetown, Prince Edward Island	2011	+ Conceptual Design Marx Miles Condominiums Private Developer Fredericton, New Brunswick	2005
+ Dartmouth Common Master Plan Halifax Regional Municipality Dartmouth, Nova Scotia	2010	+ Live/Work Neighbourhood Master Plan Southwest Properties Halifax, Nova Scotia	2004

PROJECT EXPERIENCE (CONTINUE)

+ Village and Harbour Master Plan D'Escousse, DIMA Development Isle Madame, Nova Scotia	2003	+ Glovertown Centre Plan Town of Glovertown Glovertown, Newfoundland	2014
Urban Design / Design Guidelines		+ Main Street Improvement Plan Town of Conception Bay South Conception Bay South, Newfoundland	2013
+ Downtown Halifax Design Manual Halifax Regional Municipality Downtown Halifax, Nova Scotia	2017	 2013 Award in Planning Excellence Physical Plans and Designs (Atlantic Planners Institute)	
+ Charlottetown Design Manual Town of Charlottetown Charlottetown, Prince Edward Island	2016	+ Port Aux Basques Downtown Study Town Channel-Port aux Basques Port aux Basques, Newfoundland	2013
+ Rothesay Zoning Handbook Town of Rothesay Rothesay, New Brunswick	2015	 2013 Award of Planning Excellence Neighbourhood Planning (Canadian Institute of Planners)	
+ Paradise Design Guidelines Town of Paradise Paradise, Newfoundland	2015	+ Downtown Revitalization Plan Town of New Waterford and District Economic Renewal Association New Waterford, Nova Scotia	2003
+ Port aux Basques Facade Guidelines Town of Chanel-Port aux Basques Port aux Basques, Newfoundland	2014	+ Port Aux Basques Downtown Study Town Channel-Port aux Basques Port aux Basques, Newfoundland	2013
+ Built Form and Urban Design Guidelines Town of Riverview Riverview, New Brunswick	2011	Active Transportation Planning	
 2017 Award in Planning Excellence Physical Plans and Designs (Atlantic Planners Institute)		+ Peninsula South Complete Streets Project Halifax Regional Municipality Halifax, Nova Scotia	2020
+ Brigus Heritage Design Guidelines Town of Brigus Brigus, Newfoundland	2010	+ East Preston Active Transportation Plan East Preston Transportation Committee Halifax Regional Municipality, Nova Scotia	2019
+ Design Guidelines for Tilting Irish Field Studies Centre Town of Tilting Tilting, Newfoundland	2008	+ Kentville Active Transportation Plan Town of Kentville Kentville, Nova Scotia	2019
Urban Design / Streetscaping		+ Fitzroy Street Bike Lane City of Charlottetown Charlottetown, Prince Edward Island	2019
+ Inverness Central Avenue Streetscape Plan Municipality of the District of Inverness Inverness, Nova Scotia	2021	+ Sherbrooke Active Transportation Plan Municipality of the District of St. Mary's (2016) Sherbrooke, Nova Scotia	2016
+ Stephenville Downtown Revitalization Plan Downtown Business Improvement Association Stephenville, Newfoundland	2018	+ Argyle Active Transportation Plan Municipality of the District of Argyle Argyle, Nova Scotia	2016
+ Refresh Water Street Streetscaping Project City of St. John's St. John's, Newfoundland	2016		

PROJECT EXPERIENCE (CONTINUE)

+ Avon Region Active Transportation Plan West Hants, Windsor and Hantsport Avon Region, Nova Scotia	2015	+ Bedford Highway Functional Plan Halifax Regional Municipality Bedford, Nova Scotia	2019
 2015 Award in Planning Excellence Comprehensive Policies and Plans (Atlantic Planners Institute)		+ Affordable Housing Needs Assessment Akoma Holdings Dartmouth, Nova Scotia	2018
+ Active Transportation Master Plan Municipality of the District of Lunenburg District of Lunenburg, Nova Scotia	2011	+ Port Wallace Master Plan Infrastructure Study Halifax Regional Municipality Halifax, Nova Scotia	2017
Recreation Planning			
+ Inverness Recreation Master Plan Municipality of the District of Inverness Inverness, Nova Scotia	2021	+ Nashwaak Rural Community Project NB Environment & Local Government Nashwaak, New Brunswick	2017
+ Sparwood Parks and Recreation Master Plan District of Sparwood Sparwood, British Columbia	2019	+ Wood for Mid-Rise Opportunities in Atlantic Canada AtlanticWoodWorks Amherst, Nova Scotia	2016
+ Paradise Recreation Master Plan Town of Paradise Paradise, Newfoundland	2019	+ New Brunswick Modernized Planning Legislation Communications & Engagement Services New Brunswick Association of Planners	2016
+ Shediac Recreation Master Plan Town of Shediac Shediac, New Brunswick	2018	+ Sherbrooke Lake Public Access Consultations Municipality of Lunenburg Lunenburg, Nova Scotia	2016
+ Southeast New Brunswick Recreation Assets and Connectivity Study Southeast Regional Service District Southeast New Brunswick	2015	+ Healthy Communities Statement of Provincial Interest Province of Nova Scotia Nova Scotia	2015
+ Quispamsis Sports Field Analysis Town of Quispamsis Quispamsis, New Brunswick	2015	+ McNabs Island Tourism Impact Assessment Public Works and Government Services Canada McNabs Island, Nova Scotia	2013
+ Dartmouth Sportsplex Revitalization Study Halifax Regional Municipality Dartmouth, Nova Scotia	2010	+ Annapolis Valley Industrial Land Demand Study Kings Regional Development Agency Annapolis Valley, Nova Scotia	2011
+ Greenwood Arena Location Study Municipality of Kings County Greenwood, Nova Scotia	2011	+ Edinburgh Waterfront Independent Review Cairns International Edinburgh, Scotland	2010
		+ Paradise Recreation Master Plan Town of Paradise Paradise, Newfoundland	2019
Planning Studies + Research			
+ Antigonish Accessibility Plan Town of Antigonish Antigonish, Nova Scotia	2021	Visual Impact Assessments	
+ Herring Cove Road Functional Plan Halifax Regional Municipality Halifax, Nova Scotia	2020	+ Visual Impact Assessment, 8 MW Wind Farm Renewable Energy Services Limited (2013) Terence Bay, Nova Scotia	2013
		+ Visual Impact, Maritime Link Transmission Corridor Emera Nova Scotia & Newfoundland	2013

+ Visual Impact Assessment, 38 MW Wind Farm Atlantic Wind Power Corporation Pugwash, Nova Scotia	2011
+ Dartmouth View Plane Study Halifax Regional Municipality Dartmouth, Nova Scotia	2010
+ Visual Impact Assessment, 22 MW Wind Farm Renewable Energy Services Limited Point Tupper, Nova Scotia	2008
+ Visual Impact Assessment, 45 MW Wind Farm Atlantic Wind Power Corporation Nuttby Mountain, Nova Scotia	2008
+ Visual Impact Assessment of Donkin Coal Mine Xstrata Donkin, Nova Scotia	2007

PUBLICATIONS

Small Community Urbanism

Kaeubler, Steffen; Gordon Smith
LANDSCAPES | PAYSAGES, Spring 2013 Issue.

The article weighs in on the debate around a distinct Canadian Urbanism as a shared approach to city-building in Canada. The authors argue that the discourse should not neglect small towns and villages since many of the principles of urbanism have their origin in small, tight-knit, dense and walkable small towns.

Visualizing Landscape Architecture

Mertens, Elke (2010).
Basel, Boston, Berlin: Birkhäuser Publishing.

Steffen was invited to provide renderings to Prof. Dr. Elke Mertens' publication "Visualizing Landscape Architecture". In three large sections, this books sifts through visual presentation techniques and evaluates them in terms of their informative value and persuasive power, illustrating its points with analysis of examples from international firms. The visual examples were chosen for their clarity and to underline how important it is that a design be effectively communicated to the community, clients, and the public.

Curriculum Vitae

Nathan MacLeod, APALA, CSLA, LPP, MCIP
Landscape Architect

63 King Street
Dartmouth, Nova Scotia B2Y 2R7
+1 (902) 423 0649
nathan@uplandstudio.ca



PROFILE

Nathan is a principled designer with a genuine interest in the people and places around him. In his professional practice he strives for thoughtful design solutions that respect their physical context and end user. With a multidisciplinary background in planning and landscape architecture, Nathan is a versatile team player who is able to work at all scales - from the region to the site. Perhaps in part due to his focus on context-sensitive design solutions, he is a skilful listener with a knack for solving tough design problems and building consensus among diverse groups.

Nathan is a Licensed Professional Planner as well as a member of the Atlantic Provinces Association of Landscape Architects. He has a Bachelor of Community Design (Honours in Urban Design Studies) and a Masters of Landscape Architecture. This education has been supplemented by three years of municipal planning experience and over four years of design experience in the private sector. This multidisciplinary experience has given him the ability to work and communicate effectively with people of all backgrounds.

During his professional career, Nathan has worked at all phases of the planning and design process using a wide range of professional software, including AutoCAD, SketchUp, PhotoShop, Illustrator, and InDesign. He also has a personal preference for hand drawing and its direct physical connection between designer and page.

TECHNICAL SKILLS

- + Landscape architecture & design
- + Site planning
- + Tender and contract document production
- + Project management
- + Construction contract administration
- + Landscape graphics
- + Autodesk AutoCAD
- + Adobe Creative Suite (InDesign, Illustrator, Photoshop)
- + Trimble SketchUp
- + Nemetschek Vectorworks
- + Microsoft Office Suite

MEMBERSHIPS + AFFILIATIONS

- + Canadian Society of Landscape Architects
- + Atlantic Provinces Association of Landscape Architects
- + Canadian Institute of Planners
- + Atlantic Planners Institute
- + Licensed Professional Planners Association of Nova Scotia

EDUCATION

University of Manitoba **2011–2017**
Master of Landscape Architecture

Dalhousie University **2006–2010**
Bachelor of Community Design, Honours in Urban Design Studies

PREVIOUS WORK EXPERIENCE

Architecture49 (A49) **2017-2021**
Landscape Architect

Eastern District Planning Commission (EDPC) **2012–2017**
Planner

CBCL Limited **2014**
Landscape Architecture Intern

Municipality of the County of Kings **2009**
Planning Intern

RECENT AWARDS + RECOGNITION

Peter Klynstra Memorial Scholarship Award	2014
MALA Annual Book Award	2012
Manitoba Graduate Scholarship	2011/2013
Canadian Institute of Planners Student Award for Excellence	2010
University Medal in Community Design	2010
Dalhousie Chancellor's Scholarship	2006-2010
Dalhousie Sexton Scholar	2006-2010
Dalhousie Residence Scholarship	

SELECTED PROJECT EXPERIENCE

+ Wentworth Lake Park Detailed Design Municipality of Clare Wentworth Lake, Nova Scotia	2022-ongoing	+ École Acadienne de Pomquet CSAP Pomquet, Nova Scotia	2020
+ 53 Queen Street Mixed-Use Development Private Developer Dartmouth, Nova Scotia	2021-ongoing	+ Pictou East P-8 School Conversion Nova Scotia Transportation and Infrastructure Renewal Lyon's Brook, Nova Scotia	2020
+ French River Development Plan Private Developer Tatamagouche, Nova Scotia	2021-ongoing	+ Bridgetown Regional Outdoor Sports Hub Bridgetown Regional High School Bridgetown, Nova Scotia	2020
+ Dalhousie Physical Sciences Facility Dalhousie University Halifax, Nova Scotia	2021-ongoing	+ St. Patrick Infill Plan City of Swift Current Swift Current, Saskatchewan	2017
+ Inverness Public Realm Projects Municipality of the County of Inverness Inverness, Nova Scotia	2021-ongoing	+ Master Planning and Urban Design Study: 1557 Hollis St Canada Lands Company Halifax, Nova Scotia	2020
+ Inverness Central Avenue Streetscape Design Municipality of the County of Inverness Inverness, Nova Scotia	2021-ongoing	+ New Waterford Community Hub Town of New Waterford New Waterford, Nova Scotia	2021
+ Red Bay National Historic Site Design Parks Canada Red Bay, Newfoundland	2020-ongoing	+ Northside Community Health Complex Nova Scotia Lands North Sydney, Nova Scotia	2021
+ Stratford Community Campus Town of Stratford Stratford, Prince Edward Island	2020-ongoing	+ Eel Ground First Nation Recreation Centre Eel Ground First Nation Eel Ground, New Brunswick	2019
+ Washbrook Greenway Design/Build Washbrook Greenway Development Committee Sydney, Nova Scotia	2021	+ Atlantic Tennis Centre Tennis NS Bedford, Nova Scotia	2020
+ Halifax Regional Fire and Emergency Headquarters Halifax Regional Municipality Bedford, Nova Scotia	2020	+ Happy Valley-Goose Bay Wellness Centre Town of Happy Valley-Goose Bay Happy Valley-Goose Bay, Labrador	2020
+ St. Andrew's Community Centre Halifax Regional Municipality Halifax, Nova Scotia	2020	+ Springhill Outdoor Recreation and Multi-Sport Complex Master Plan Municipality of Cumberland Springhill, Nova Scotia	2019
+ Seymour Gordon Quiet Park Town of Wolfville Wolfville, Nova Scotia	2018	+ Placentia Regional Wellness Centre Town of Placentia Placentia, Newfoundland	2019
+ Pugwash Waterfront Development Master Plan Municipality of Cumberland Pugwash, Nova Scotia	2017		
+ École Acadienne de Clare CSAP Saulnierville, Nova Scotia	2020		

Jeffrey Pinhey, M.A.Sc., P.Eng. Senior Environmental Engineer

Jeff is a Partner in ABLE Engineering Services. Jeff is a Civil/Environmental Engineer and Project Manager with 37 years of experience in environmental engineering and planning, municipal engineering, urban and landscape design, urban design, and project management. Mr. Pinhey has held senior roles in small and medium size engineering and landscape architecture firms, and maintains specialist practices in small scale wastewater solutions, sport and recreation projects, and civil engineering design in support of landscape architectural, urban design, and planning projects.

Some projects where Mr. Pinhey has played a significant role as either project manager and/or engineering support, include:

School site selection and assessment reports for 99 schools in Nova Scotia, including Meadowbrook Elementary, Yarmouth High, and the new Yarmouth Junior High Schools. Work included review of engineering and environmental background of proposed sites for new schools, recommendation on preferred sites, design review.

Cape d'Or Masterplan Implementation, including design of new sanitary services, road improvements, interpretation centre and innovative trail design down a steep slope. (ongoing)

Fundy Gateway Park, Conceptual Design and masterplan, intercepting the tidal bore at Truro, NS

Halifax Public Gardens Drainage Improvement Plan

Village of Chester Waterfront Plan, Tancook Island Ferry Parking and Sidewalk Standards, Planning Study

Bear River, Waterfront Plan, NS - *Waterfront Center International Design Award*

Ajax, ON Waterfront Park Masterplan, Waterfront and Marine Park, Lake Ontario

Wright's Cove Planning Strategy, Southeast Shore, Bedford Basin, NS

Co-author - New Provincial Manual for Sedimentation and Erosion Control from Construction Sites in Nova Scotia (ongoing)

Development masterplan, including sewage management, The Ovens Park, Lunenburg County.

Point Pleasant Park Masterplan - 2009 *CSLA National Honour Award* and Point Pleasant Park International Design Competition, *Co-Winning Team Member - 2007 CSLA National Award of Merit*

Bayne Street Area Masterplan, North Peninsula, Halifax, NS

Waterfront Development Plan, Pictou, NS - *Waterfront Center International Design Award*

New water supply and on-site sewage disposal system, Ross Farm, New Ross

Waterfront Development Plan, Pictou, NS - *Waterfront Center International Design Award*

Site civil design for the Joggins Fossil Museum

Lake Banook Masterplan, 2008, and implementation in time for Canoe '09 World Junior Championships, new services and amenities for the athletes

Ports Canada, Halifax Cruise Ship Terminal Planning Study, Halifax Seaport Streetscape Design, Seaport Redevelopment masterplan

Village of Chester Streetscape Improvement Study, Civil and Municipal engineering, Low Impact Design section for stormwater management

EDUCATION

Master of Applied Science, 1984
Technical University of NS

Bachelor of Engineering (Civil), 1981
Technical University of NS

EMPLOYMENT HISTORY

ABLE Engineering Services Inc., 2009-Present, Vice-President

LandDesign Engineering Services, 1999-2009, Sole Proprietor

EDM Environmental Design and Management Ltd., 1993-1998
President

Vaughan Engineering Associates Ltd., 1984-1992. Manager, Municipal Engineering

Memberships

Engineers Nova Scotia
Atlantic Provinces Association of Landscape Architects (Honorary)
The Stanley Thompson Society
Royal Canadian Golf Association



ENGINEERING SERVICES INC.

5209 St. Margarets Bay Road,
Suite 201, Upper Tantallon, NS.
B3Z 1E3

Mark Gardin, PQS(F), MRICS

Cost Consultant & Professional Quantity Surveyor

OVERVIEW



Mark Gardin is a Senior Professional Quantity Surveyor with over twenty nine years of combined experience in quantity surveying, cost planning, cost estimating, project planning, project management, life cycle cost analysis, and risk management. Mark has worked for both the public and private sectors which enables him to have the complete understanding of the value of proper budgeting and accurate cost advice for owners, designers, and builders in Atlantic Canada. He has provided cost planning and cost management advice on billions dollars in infrastructure projects in every stage of design and construction. Mark has experience in many forms of infrastructure procurement and has extensive experience with public spaces, theatre and arts facilities and he will be the Lead Cost Consultant responsible for all cost estimates.

PROFESSIONAL EXPERIENCE

2012-Present	QSolv Incorporated, Principal, Vice President, Senior Cost Consultant
2002-2012	Public Works and Government Services Canada, Senior Cost Planner
1997-2002	Marid Industries Limited, Chief Estimator
1994-1997	Dineen Construction Atlantic Inc, Estimator/Project Manager
1991-1994	Cherubini Metal Works Limited, Estimator/Project Manager
1990-1991	Marid Industries Limited, Estimator/Project Manager

EDUCATION/PROFESSIONAL ACCREDITATIONS

2014	MRICS #6394149, Professional Member, Royal Institution of Chartered Surveyors
2014	Fellowship designation – PQS(F) award by CIQS
2003	PQS Diploma #1884, Canadian Institute of Quantity Surveyors (CIQS)
1993	Certificate in Construction Management, TUNS
1990	Construction Administration Technology Diploma, NSIT

INVOLVEMENT

2015-2018	Committee Member, International Construction Measurement Standards (ICMS)
2013-2014	Chair, Canadian Institute of Quantity Surveyors (CIQS)
2009-2011	President, CIQS Maritimes (Nova Scotia, New Brunswick, Prince Edward Island)

KEY RELATED PROJECT EXPERIENCE

Dalhousie Arts Centre, New Recital Hall, Halifax, NS - \$32.0M
 Theatre Newfoundland, New Theatre Building, Cow Head, NL - \$8.73M
 Confederation Centre of the Arts, TP5 Interior Renovations, Charlottetown, PE - \$1.2M
 Reid Theatre Revitalization, Memorial University, St. John's, NL - \$8.7M
 Neptune Theatre Interior Renovations, Halifax, NS - \$3.3M
 Kenmount Community Building and Park, St. John's, NL - \$9.4M
 Sydney Casino Interior Renovations and Revitalization, Sydney, NS - \$1.2M
 BioScience Incubator Manufacturing Facility, Charlottetown, PE - \$6.8M
 Province House Envelope Restoration, Third Party Cost Analysis, Charlottetown, PE - \$24.0M

E. RESOURCE SUPPORT



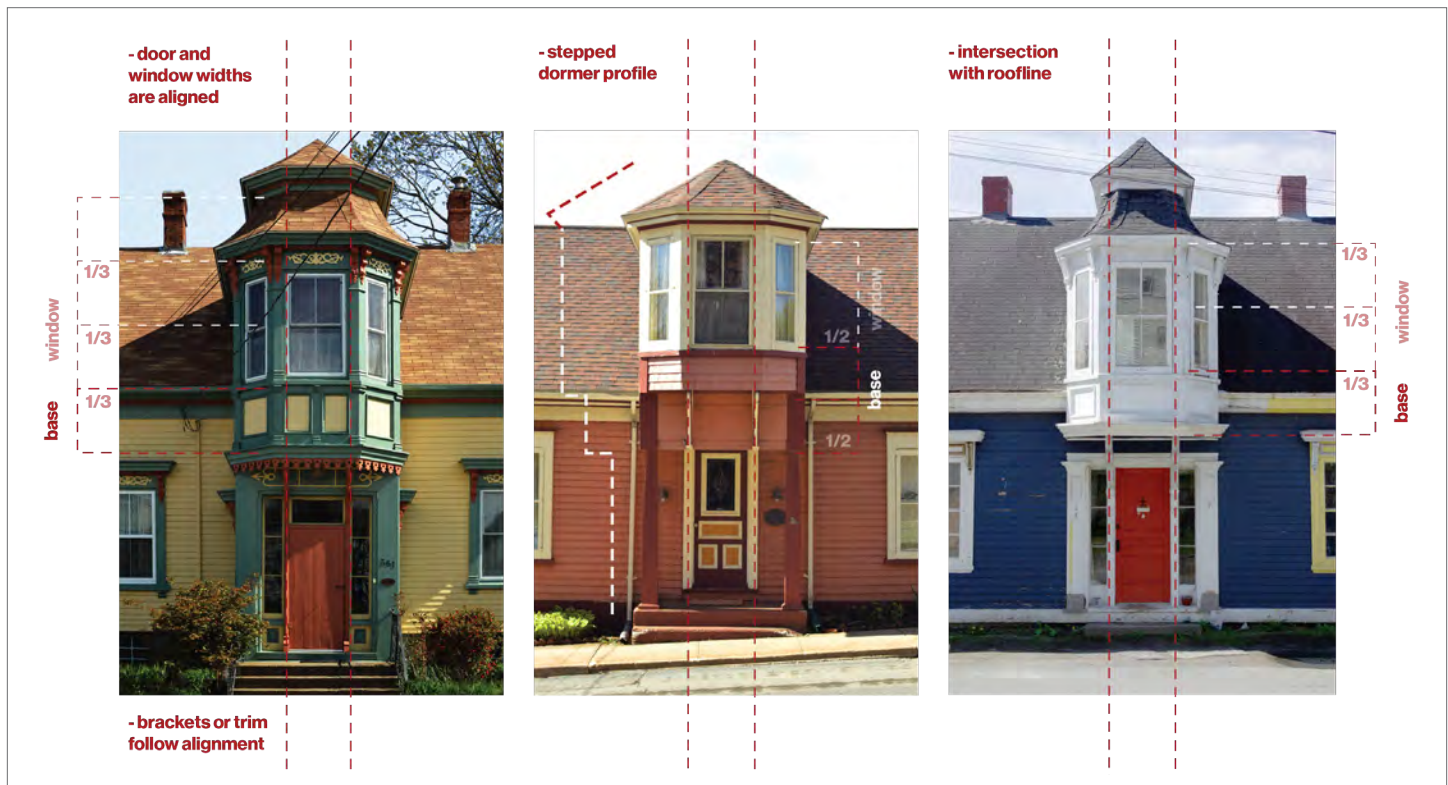
RESOURCE SUPPORT

Additional Information where available:

- Any schedule requirements, critical timelines
- Municipal Servicing Plans: water, sewer, hydrant
- Lunenburg Electric Utility plans and system standards
- Telecom infrastructure plans and standards
- Street design standards; other civil / town engineering standards and practices
- Update on revisions to Heritage Conservation Plan, By-Law and Guidelines
- CAD maps, plans
- 3-D Sketch-up Town model
- Any pre-existing studies or reports relevant to the development
- Additional land ownership information for lots not indicated in RFP

Town of Lunenburg Staff Resources and Support:

- Ideally, establishment of one Town of Lunenburg point of contact for all general project coordination
- Lunenburg Electric Utility liaison
- Town Civil engineering liaison
- General availability, engagement, and review capability to facilitate a healthy consultative, iterative design process



from: Study of Instances and Development of the Lunenburg Bump Abbott Brown Architects

F. PROPOSED BUDGET



COST BREAKDOWN**Design Consultant Fees:**

Architectural / Prime Consultant:	\$23,600
Planner / Landscape Architect:	\$7,470
Civil Engineer / Land Surveyor:	\$11,000

Expenses:

Travel:	\$450
Printing:	\$350
TOTAL EXPENSES:	\$800

DESIGN FEES PLUS EXPENSES:	\$42,870
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Additional Consultant Services

The extent of, and requirement for these services shall be re-confirmed with the Town, who may choose whether or not to proceed with them, understanding the resultant limitations on scope of services. We are also happy to discuss and review their scope. Note that we recommend the use of a Quantity Surveyor, even for high-level costing. Design firms have only limited exposure to costing dynamics, especially during the current market volatility.

Quantity Surveyor (Cost Estimator):	
Q Solv Incorporated	\$4,080
Legal Support for Drafting of Covenant:	
McInnes Cooper	\$7,500

TOTAL FEES, WITH ADDITIONAL SERVICES:	\$54,450 not including HST
--	-----------------------------------

thank you!

ABBOTT
BROWN

3.0 PROPOSAL FORM

NAME OF PROPONENT: ABBOTT BROWN ARCHITECTS

Do not include HST in the Amount of Proposal. All of the below pricing is to be in Canadian Dollars.

Amount of Proposal.....	\$ <u>54,450.00</u>
HST.....	\$ <u>8,167.50</u>
Total.....	\$ <u>62,617.50</u>

Please attach the following additional information:

- Start and end time required to complete the work.
- Two relevant work references and contact phone numbers.

Mailing Address 5657 Cornwallis Street
Halifax, NS, B3K 1B6

Phone Number 902 405 8877

Email Address alec@abbottbrown.ca

Signature 

Print Name & Title Alec Brown, Principal

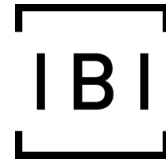
Date 30 June, 2022

Witness Leanna Letterio

Date 30 June 2022

Details of Proposal – please attach your submission details as required in this RFP.

Midland Bay



Proposal RFP TOL2022016

Consultant Services Proposal for: Upper King Street Extension Development

Date

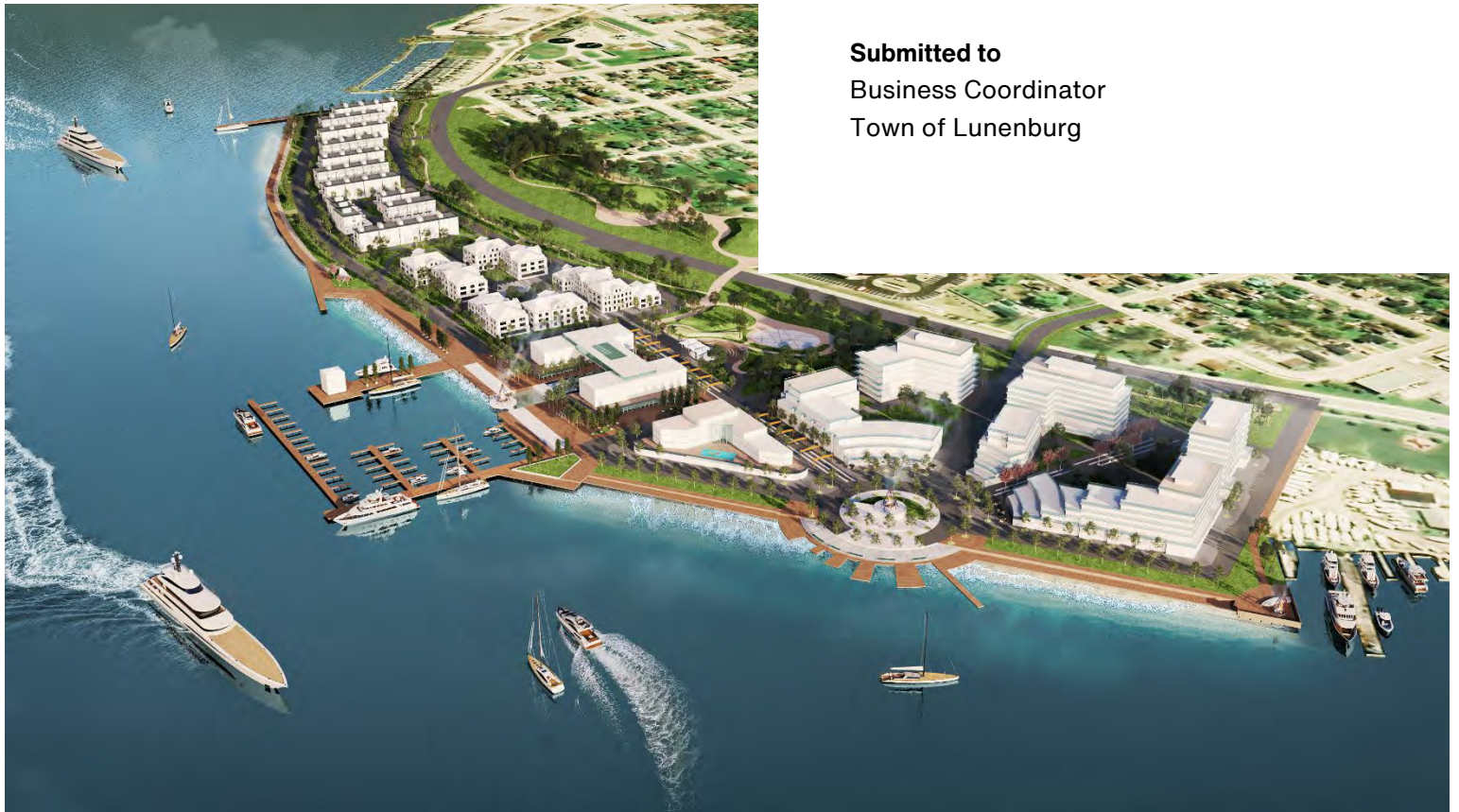
June 30, 2022

Submitted by

IBI Group

Submitted to

Business Coordinator
Town of Lunenburg





IBI GROUP
Suite 1105–1645 Granville Street
Halifax NS B3J 1X3 Canada
tel 902 442 9844 fax 902 442 9845
ibigroup.com

June 27, 2022

Town of Lunenburg
119 Cumberland Street
LUNENBURG, NS B0J 2C0

purchasing@townoflunenburg.ca

Attention: Business Coordinator

RE: RFP #TOL2022016
Upper King Street Extension Development

In response to the Town of Lunenburg's request for proposals, we are please to submit, via Email our PDF Technical Proposal.

We wish to introduce our team and express our sincere interest in undertaking this project on behalf of the Town of Lunenburg. Members of our team have worked in the Province of Nova Scotia completing the architectural design for the recently constructed District of Lunenburg administration office, in Halifax on the Nova Centre development and Grafton Street Streetscape Study, as well as Master Plans for Ingonish by the Sea; Bell Bay Resort and Kildare Landing in Cape Breton; and Dalhousie University Halifax campus and Truro campus. The project team has demonstrated experience in successful completion of design work for private clients and municipal governments, including ongoing work in Midland Ontario where members of our team are completing a very similar project reimagining municipal lands for divestiture to private developers for preferred future development direction.

We acknowledge receipt of Addendum 1, we do not have any perceived conflict of interest concerns in connection with this project and our professionals fully licensed, able to provide a Certificate of Insurance and Registered with Nova Scotia Worker's Compensation Board.

Thank you for this opportunity, if you should have any questions or concerns please contact the undersigned.

Yours truly,

IBI GROUP

Trevor McIntyre, MLA, FCSLA, OALA, AALA,
APALA, ASLA, ULI
Global Director | Placemaking

7th Floor - 55 St. Clair Avenue West
Toronto, ON M4V 2Y7
+1 416 596 1930 ext 61035
tmcintyre@ibigroup.com

Stephen Albanese, MCIP, RPP
Associate Director | Practice Lead, Planning

7th Floor - 55 St. Clair Avenue West
Toronto, ON M4V 2Y7
+1 416 596 1930 ext 61425
stephen.albanese@ibigroup.com

Signing Authorities

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Appendix B – Proposal Form, References Information and Addenda

1. Introduction and Understanding

The Town of Lunenburg is located along Nova Scotia's South Shore and has a population of 2,300 year-round residents. The Town is a major tourist attraction during high hospitality season based on coastal beauty and heritage attributes internationally recognized in the Town's UNESCO Heritage Town status. Lunenburg, like many other Towns in Nova Scotia, is seeing an increase in population and growth, and as a result, the Town has initiated this RFP strategy to evaluate the development potential of the Town-owned subject lands. Land development in Lunenburg is guided by the Comprehensive Community Plan (CCP), the Municipal Planning Strategy (MPS) and the vision and policies set out in the CCP and MPS are implemented through the Land Use By-law and Subdivision By-law.

The Town of Lunenburg (hereafter, "Town") is seeking a qualified consultant to provide development schemes appropriate for the development of lands comprising the "Upper King Street Expansion" development. The subject lands are located to the north of Creighton Street, east of Cornwallis Street, south of Bypass Road 332 and the Bay to Bay Trail, and west of Prince Street, with views of the Back Harbour. The subject lands include approximate land area of 1.62 hectares (4 acres) consisting of three parcels of land, a portion of a fourth parcel and portions of three road right-of-ways providing potential connection opportunities to existing public roadways known as Creighton Street and Cornwallis Street. The subject parcels are known municipally as PID 60057387, PID 60057379, PID 60057395 and a portion of PID 60579687.

The intent of the RFP is for the successful proponent to prepare four (4) mixed-use residential development schemes for a highest and best use analysis, including, two (2) concepts which would be evaluated compliant to the Town's municipal planning regime or existing land use permissions, and would require a public street system based on permitted units per lot; and, two (2) development schemes which would consider a higher density land use than contemplated within the current land use permissions. Each of these development schemes are to include street layout, servicing, lot configurations, proposed use and unit count of each lot, and a financial cost analysis that will inform the Town on the development options, as well as incorporating a mix of affordable and accessible units.

In order to gain an understanding of preliminary opportunities and constraints for the site against the requested scope of work, IBI Group attended the site and prepared the following preliminary development sketches as a basis for understanding the realization of a development scheme suitable to the subject lands. This preliminary due diligence analysis illustrates the challenges to development of a site with significant elevation change, visually observed to be approximately 30 metres, and viewscape opportunities and constraints for existing and future residential development to Back Harbour.

Constraints and Opportunities 1



The topography of the site would appear to significantly limit any opportunity to develop public streets to municipal standards and would likely present feasibility challenges to the municipal water and sewer systems extension. The access options would appear to be development of a private, curved, roadway system from the end of King Street into the development or potentially to have an access in the same location entering directly into some form of underground parking structure with dwelling units above.

Based on IBI's professional experience with similar developments and our preliminary opportunities and constraints analysis, we propose an alternative approach to the development schemes considered in the RFP (described more fully within subsequent sections of this proposal), in the form of two (2) development schemes, one on the basis of a lower density housing cluster design approach and, one with a higher density cluster design approach, as generally depicted in these

sketches, to be determined through the project startup phase with the Town. We believe that the intent of the project can be achieved based on 2 concepts rather than 4.

Constraints and Opportunities 2



Our cross disciplinary team brings together the best of IBI Group, local experience, placemaking excellence, master planning and active transportation experts. The team has demonstrated technical ability, knowledge and experience of working on topographically difficult sites, within or adjacent to heritage areas, incorporating first-class active transportation solutions, and working collaboratively with local governments. IBI Group also has strong connections with a range of technical consultants and experts and can draw upon these resources as needed through the duration of the project and in consultation with the Town. These skillsets make IBI Group uniquely qualified to successfully deliver the Upper King Street Extension Development approach to the Town.

2. Scope of Work /Approach

IBI Group is pleased to submit this proposal in response to The Town of Lunenburg's RFP #TOL2022016 Upper King Street Extension Development which will result in two (2) development scheme concepts for the subject lands, that would provide residential infill options to meet the Town's continued growth needs. Schedule 1, Scope of Work, provides the main elements of the eventual work plan which can be summarized as follows:

- Understanding the site and project initiation;
- Preparing highest and best use development options to inform future development;
- Engaging in Cost Analysis for the design options;
- Finalizing documents and presentation to council; and,
- Additional value-added services that will provide more design and cost certainty for future phases of development.

As the Lead Consultant, IBI Group brings together a cohesive, comprehensive, and multi-disciplinary team to successfully complete this project, with a detailed understanding of the inter-related requirements of producing design plans complete with financial analysis of a topographically complex site. Our work will be informed through meaningful collaboration with the Town and vested stakeholder' engagement throughout the course of the project by establishing consistent and clear communication between all parties.

IBI Group will be responsible for the complete coordination and delivery of 2 master plan concept options, as well as the financial analysis. Should the additional services be desired, IBI Group will also manage all outputs from subconsultants for the duration of the project, working to ensure the smooth delivery of the project. The following section demonstrates IBI Group's understanding of the project, including an overview of key tasks and deliverables anticipated for the project.

2.1 Technical and Local Understanding

IBI Group is extremely familiar with Nova Scotia's South Shore and understands the unique and historic role Lunenburg has in the landscape. The areas scenic and heritage beauty is well noted and of strategic importance to the ongoing success of the Town of Lunenburg. Lunenburg, like many other Towns in Nova Scotia, is seeing an increase in population and growth, and as a result, the Town has a responsibility to explore methods for the Town to foster responsible, high-quality and sustainable residential development, such as this project.

The core Project Team members and their roles and qualifications, as further outlined in Section 4 and on enclosed resumes, include:

Trevor McIntyre MLA, FCSLA, OALA, AALA, APALA, ASLA, ULI

Trevor has over 30 years of experience in complex design projects worldwide and extensive experience in Nova Scotia, specifically as a team member on the Nova Centre in Halifax. For this project Trevor will act as the Project Director.

Paul Riley BA, CPT

Paul has over 8 years of experience on a variety of land use planning and multi-disciplinary land development projects, is a Planner, Certified Planning Technician and Project Manager, and has worked extensively with a municipal client as consulting planner. Paul grew up in Antigonish, Nova Scotia, and is in the final stages of a transition from the London, Ontario, office to the Halifax office. For this project, Paul will act as Project Manager and will be the key point of contact.

Jamie Wright B Arch, FRAIC, pp OAA, ODV

Jamie is a recently retired director of IBI Group, who established their Halifax office in 2012 and was in charge of all of the firm's major work in Atlantic Canada. He is a Nova Scotian, graduate of the Dalhousie school of Architecture and resident of Marriott's Cove, Nova Scotia.

Jamie has extensive experience designing master plans for residential communities and understands the related economics of land development and housing construction gained from his over 40 years of working for the real estate development industry. For this project Jamie will support the team as a master plan advisor.

Lisette Wright BEDS (ARCH), BSC

Lisette has 25 years' experience in architecture and construction project management, including on recent large-scale mixed-use projects in Halifax, Municipal Building for the District of Lunenburg, and hospitality project for Cape Breton Resort. Lisette will act as Lead Architect and advisor for the project.

The IBI Group project team has a wealth of experience in the province, with project experience in Halifax, the District of Lunenburg and Cape Breton. More recently, IBI Group provided architectural design services for the development of a new administration office for the District of Lunenburg, as well as Grafton Street Streetscape Study for the Halifax Regional Municipality; Nova Centre, Dalhousie main campus and agricultural campus in Truro; and Master Plans for Ingonish by the Sea, Bell Bay Resort and Kildare Landing in Cape Breton. The project team includes representatives from our Halifax office, therefore, IBI Group offers both local experience and an industry-leading network of qualified and experienced professionals in the land use planning, master planning, civil engineering, architecture and landscape architecture sectors.

The local and broader team also has family roots in Nova Scotia, or the Maritimes, and these individuals have a strong identity to the land (and sea) and the desire to support quality, sustainable, informed development in the region.

2.2 Approach

The Upper King Street Development Project is an exciting opportunity for the Town of Lunenburg to expand and better service growing population needs. The subject lands provide an exciting opportunity for growth in the community adjacent to the existing built-up area.

In addition to the scope of work proposed, we have also included areas of value-add services that would provide supplementary and more detailed technical analysis to meet the needs of your project. While the fundamental elements of our approach will ensure appropriate development schemes are proposed, these additional services would provide more certainty and accuracy to fully realize the intent of the design schemes and create a level of municipal and public support for the divestiture of the subject lands to a developer. This will allow the Town of Lunenburg and the community to make an informed decision for highest and best use of the subject lands.

IBI Group will provide you with the following services and deliverables (collectively, the “Services”). A full breakdown of team time for each task is in the Team/Task Matrix/Fee Schedule in Section 5.

2.2.1 Phase 1 – Project Initiation and Preliminary Investigations

IBI Group believes that the success of all projects begins at the start, which is why we propose a kickoff meeting with the Town and the vested stakeholders. This 2-hour meeting is an opportunity for introductions, to establish the foundation of the project, determine communication protocols, and discuss anticipated timing to complete the project, including a review of the proposed workplan. In this meeting, the team will meet with Town staff to understand the needs of the community and ask any questions that may need answers prior to beginning the subsequent phases. This approach is vital to ensure that all the client’s needs and goals will be met prior to the commencement of the project.

Once the team gains a better understanding of the Town’s specific vision, goals, and objectives, IBI Group will do another site visit to ensure that we fully understand the intricacies of the site in relation to preferred outcomes. We have previously visited the site and noted the topographical challenges, and another site visit following the kickoff meeting would be an opportunity to generate development schemes that align with the vision(s) for the site.

Although development schemes can be generated based on assumed grade change observed onsite, and available LiDAR data from provincial resources, we would recommend completing a topographic survey to establish a more formal understanding of the challenges and opportunities available for future development. The topographical survey would be an additional charge to our fee.

This phase will commence upon award of contract, which is slated for August 1, 2022 based on our proposed schedule. All the project initiation and investigative work will take approximately 3 weeks and will lay a solid foundation for our team to proceed to conceptual design.

The following Tasks will be completed for Phase 1:

Task 1: Kick Meeting with the Town and Stakeholders - BI Group will prepare for and attend one meeting with Town representatives and any identified stakeholders. Following the direction from the Kickoff Meeting, IBI Group will visit the site for further understanding of the opportunities and constraints.

Task 2: Review and Next Steps - BI Group will revisit the work plan and prepare a Base Map for the subject lands.

2.2.2 Phase 2 – Conceptual Design

IBI Group will prepare two (2) conceptual design schemes in sketch form for Client review and input (based on Phase 1 and Phase 2, and the conceptual sketches provided herein). Of the two designs, one will support a medium density approach to development, and one will support a higher density approach to development. Upon approval, we will incorporate minor refinements and prepare a preliminary massing and conceptual design package. The massing and conceptual design package will include massing model, servicing plan, grading plan, and a high-level cost analysis (based on the Altus Group 2022 Canadian Cost Guide).

As part of Phase 2, IBI Group will reference the local planning policy and zoning framework to inform our design work, however, based on a preliminary review we recognize that a formal comprehensive review and report on the land use planning framework would be more appropriate once Phase 1-3 have been completed. We anticipate the necessity of IBI Group providing the Town with further, value-added services, in the form of a comprehensive policy and zoning review to evaluate how the preferred development scheme(s) would be supported from a land use planning perspective in addition to or following a Public Information Session to inform residents and obtain public feedback.

Additional concepts can be added as an additional fee should where necessary during the course of the design work. These concepts would explore more complex issues that are not specified in the RFP, such as rezoning.

This phase will commence upon completion of Phase 1 and will take approximately 2 months to complete.

The following Tasks will be completed for Phase 2:

Task 3: Prepare Preliminary Due Diligence to Inform Concepts - IBI Group will utilize the information from Phase 1 to solidify direction for the development of concepts and prepare a revised opportunities and constraints matrix.

Task 4: Prepare Materials for Visioning/Design Workshop - IBI Group will prepare preliminary concepts and prepare for and host a Visioning Workshop with Town representatives and identified stakeholders.

Task 5: Technical Review of Concepts - IBI Group will review technical aspects of the preliminary concepts, including review of planning, transportation, servicing, landscape architecture, urban design and architectural implications.

Task 6: Final Development Scheme Preparation - IBI Group will prepare final concepts, architectural massing and preliminary cost estimates.

2.2.3 Phase 3 – Project Completion

During Phase 3, IBI Group will package and present our findings to Council for approval. Phase 3 is anticipated to be completed over a 4 to 6-week period and will provide the Town with two preferred development options and an understanding of the constraints and opportunities associated with each option. The work completed through the project will be consolidated into a Final Report.

The following Tasks will be completed for Phase 3:

Task 7: Final Report Preparation - IBI Group will prepare a final report outlining the results of the final development scheme concepts.

Task 8: Council/Staff Meeting - IBI Group will prepare for and present the results of the final report and attend a formal meeting with Council and Staff, as well as other interested parties (at the discretion of the Town) and hold a debrief meeting with Town Staff following the formal meeting.

2.3 Optional Services

Upon discussions with the Town, IBI Group has the ability to leverage its connections to secure the following additional scope of work, subject to future budget and review, as outlined to above:

- **Public Information Session:** IBI Group is available to participate in a Public Information Session (PIS) process to present design options and considerations to the public for feedback on the direction on the preferred conceptual design schemes. The conceptual design schemes presented herein will be refined for presentation at the PIS, based on the feedback and ongoing coordination with the Town. The scope of the work and the fee would be determined at a future time.
- **Comprehensive Land Use Policy and Regulation Review:** IBI Group would evaluate how the preferred development scheme(s) would be supported from a land use planning perspective.
- **Topographic Survey:** Preliminary survey information in the form of provincially available LiDAR data is available online, however, given the unique topography of the site, the preparation of a topographic survey would be beneficial to inform detailed design of the preferred development schemes. IBI Group can arrange and coordinate a subconsultant to complete this work.

3. Demonstrated Experience

IBI Group provides the following project examples demonstrating experience:

3.1 Project 1 - The Landing at Midland Bay, Meaford, O.N.



The Landing at Midland Bay, Meaford, Ontario is currently being finalized for Georgian Communities and includes 20-acre waterfront mixed use development including ± 1000 units on a redevelopment industrial site. IBI Group is retained to assist the Municipality in the design and divestiture of municipally owned lands for residential redevelopment. The site presents similar challenges and opportunities to the subject “Upper King Street Extension” lands, with conceptual master planning exercise to determine highest and best use for future developer-led development.

3.2 Project 2 – Municipal Building - District of Lunenburg



As Prime Consultant for this municipal building, with 16, 678 square footage, we approached the project with the goal of achieving an energy efficient, highly organized and functional municipal building, and utilizing objectives of Maritime aesthetics, durability, efficiency, accessibility, safety, and community connectivity. The exterior building features, designed to fit in with the local vernacular, are of wood and brick with a metal roof. The building, recently completed, has been designed using locally sourced materials and labour. The building is designed to achieve 30% under the Model National Energy Code for Buildings (“MNECB”). Through careful design, the building envelope utilizes insulation and glazing efficiently.

Other features such as heat recovery, LED lighting, DDC controls, heat pumps, occupancy sensors, high efficiency pumps/motors and selective in-floor heat distribution create a well-designed vital building for the community. The project exhibits a modern and sustainable design within an older building that included significant stakeholder engagement throughout the process.

3.3 Project 3 – Grafton Street Streetscape Study, Halifax, N.S.



Halifax Regional Municipality (HRM) retained IBI to study Grafton St. in downtown Halifax. This important city block provides a visual and physical connection between the recently constructed Nova Centre, the Scotia Bank Centre, City Hall, and the Grand Parade. The street is a destination for locals and visitors. In order to strengthen the connection between these landmarks and illustrate the cultural significance of this corridor, the streetscape was designed to be a shared street, or “woonerf”, which encourages pedestrian circulation and events, while still accommodating flexible vehicular transportation. The “active areas” (bars, restaurants, theatres) were to allow for gathering spaces that promoted entertainment, rest and socializing. The “non-active areas” (car rental, delivery bay, parking garage) was to discourage gathering to reduce potential vehicular-pedestrian conflicts and screened where possible.

HRM also wanted to create a continuous overhead canopy at the second level along the west side of the street to provide shelter for pedestrians during inclement weather. By creating a strong overhead canopy, either through the fixed canopy structure or by utilizing street tree canopy, the streetscape design will create an ideal and inviting space to pedestrians, restaurant and bar patrons. Lighting design was essential to the space to create an inviting atmosphere and encourage pedestrian circulation. In order to create a shared street, the sidewalk areas were increased and the vehicular route were minimized while still providing for 2-way travel and parking only on the west side of Grafton Street. In order to plan for a dense tree canopy, soil cells were used in the concept to create optimal tree growth and allow for the most flexible use of sidewalk space by reducing vertical barriers. As the final deliverable, IBI submitted a Design Report for the Grafton St. Streetscape study which outlines the main objectives for the street and is to be used as a tool or standard for shared streets in Halifax for future development projects.

3.4 Project 4 – Nova Centre, Halifax, N.S.



The Nova Centre development is a mixed-use development that strongly contributes to the urban life of Halifax's Upper Downtown District. The architectural character and form respect the setting and planning imperatives of this historic neighbourhood and civic landscape. The design operates at many scales, acting as a skyline element, reinforcing city grids and streets, offering views to the Halifax harbour, and providing an engaging and animated pedestrian realm at-grade. At heart, Nova Centre is a place made with people in mind. It is both a destination and part of something larger. Having a major role in hosting visitors to the city, respecting heritage, and supporting the commerce, recreation, and hospitality of the city, Nova Centre represents the best of urban architecture.

The design had to creatively address the challenging interface between the public and private realm while being mindful of primary and secondary pedestrian/vehicular access and egress routes. The centralized 10,000 sq ft. plaza design incorporates the creative re-routing of the City owned Grafton Street beneath the building canopy which links the commercial, hotel, and convention centre buildings. Within the newly designed Grafton Street layout, there is a flexible and programmable space to serve as a central node to allow for a wide range of pedestrian oriented events while providing a safe vehicular/pedestrian separation. At-grade restaurant patios and retail plazas are designed to tie into the overall design theme.

4. Our Team

4.1 IBI Group

IBI Group Professional Services (Canada) Inc., and IBI Group Architects (Canada) Inc., (IBI Group) is a globally integrated engineering, planning, architecture, and technology firm. From transit stations to highways, airports to toll systems, trails to parks, high-rises to industrial buildings, schools to state-of-the-art hospitals, we design every aspect of a truly integrated city for people to live, work, and play. We organize our expertise into three sectors: Infrastructure, Buildings, and Intelligence.



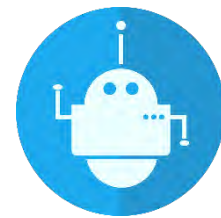
Infrastructure

Planning, urban design, landscape architecture, transportation and civil engineering



Buildings

Building architecture, interior design, building engineering (mechanical, structural, electrical)



Intelligence

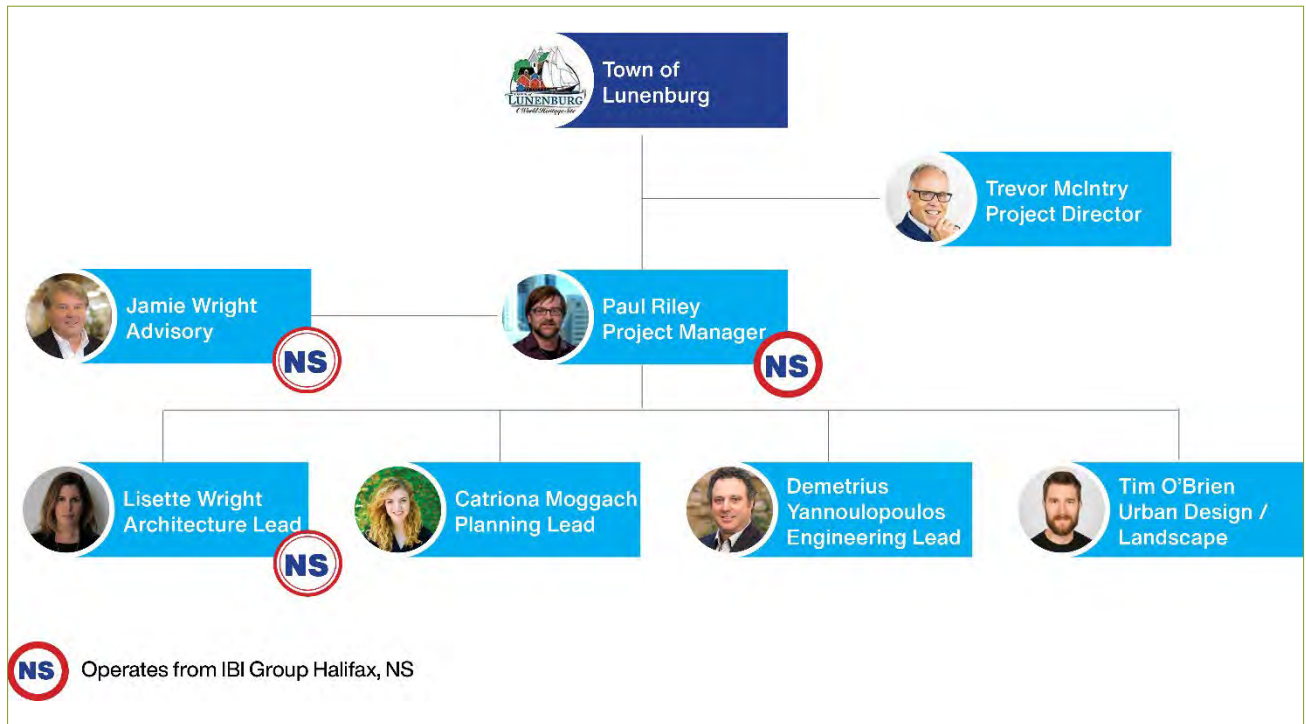
Systems design and software development

The integration of these disciplines allows us to provide comprehensive professional services for creating sustainable social and economic environments, while project management services ensure quality control and cost efficiency in project execution.

We create smart, healthy, and connected cities. We understand how people live, move, learn, heal, and play. We believe that good design enhances human experiences with emerging technologies offering a key role in making it happen. We believe in cities built upon intelligent systems, sustainable buildings, efficient infrastructure, and the human touch.

We are proud of the contributions we have made to our communities and professions over the past four decades. Utilizing our local expertise and professional team, we will deliver this project from our Halifax and Toronto offices with technical support from in-house experts in our Ottawa office. Our offices work collaboratively as global "virtual studios," using a variety of collaborative technologies including video conferencing, intranet portals and computer networks, to enable efficient communication among team members regardless of their physical location. This system enables the firm to commit the best and most appropriate staff to each project and use all resources around the world - and around the clock.

Town of Lunenburg Upper King Street Extension Development Team



Trevor McIntyre MLA, FCSLA, OALA, AALA, APALA, ASLA, ULI

Project Director

Trevor has over 30 years of experience in complex design projects worldwide, aiming to create unique and distinct places with each endeavor. Through his passion for creating livable, sustainable and advanced environments, Trevor leads IBI Group's Global Planning, Urban Design and Landscape Architecture practice and has reinvented the practice of Placemaking in his path. With a unique perspective towards design and creating truly vibrant places for people to live, work and play, Trevor has become an urban planner and designer of international repute, shaping communities across the world with his creative eye. By transcending traditional planning and design, his pursuit for design excellence and resilience in an ever-changing world has been realized and transformed communities for decades. Trevor is a leading urban planner and designer of international repute and a recognized expert in Landscape Architecture, Urban Design, Master Planning, Transit Oriented Development, Public Private Partnership (P3), and Smart City Planning.

Trevor will act as Project Director, providing corporate responsibility for the project, attending key meetings, public meetings, presentations, and overseeing design direction to provide quality control for all deliverables.



Paul Riley BA, CPT

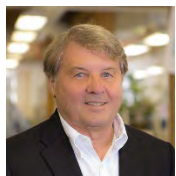
Project Manager

Paul is a Planner, Certified Planning Technician and Project Manager with over eight years of private and public sector experience in the areas of land use and land development planning as well as previous experience in land surveying and civil engineering site inspection. Paul provides private development planning services in the residential, industrial and commercial sectors as well as municipal planning consulting services.

Paul has demonstrated proficiency in land use planning, report writing, project management and design software (AutoCAD and GIS). Paul has utilized these proficiencies to provide a variety of services to clients, including Planning Justification Reports, Due Diligence and Highest and Best reports, Official Plan and Zoning By-law Amendments and statutory Reviews, Consent for Severance approvals (or “Subdivision” of land as the process is referred to in Nova Scotia), conceptual and draft subdivision and lotting design, Site Plan drawing preparation and application approvals, public consultation, rural land use municipal development review consulting services, and project management.

Paul has extensive experience in the coordination and management of a variety of projects and in 2020 was formally recognized as a Project Manager within IBI Group and has been working his way through IBI Groups Project Management Foundations training program. Paul’s ascendance to a formal Project Management role signifies his continued maturation as a project manager and demonstrates his capabilities in such a role. Paul has for over five years successfully managed a client account as consulting planner and Geographic Information Systems (G.I.S.) manager to the Municipality of Bayham in Elgin County, Ontario. The role demonstrates Paul’s ability to manage individual property owner and developer enquiries, large report files, budgeting and financial management adherence and understanding, along with demonstrating experience and familiarity with municipal planning processes and governance implications related to land development and planning approval processes. Furthermore, Paul has been successfully managing a number of private development files, specifically in the commercial redevelopment sector.

Paul will act as Project Manager and will be responsible for providing and coordinating conceptual design analysis, land use planning policy and zoning review, project management, municipal liaison and public outreach deliverables. Paul is in the process of transitioning from IBI Groups London Ontario office to the local Halifax office and is excited to be included in this opportunity to begin work in his home province, having grown up in Antigonish.



Jamie Wright B Arch, FRAIC, pp OAA, ODV

Advisory

Jamie is a recently retired director of IBI Group, who established their Halifax office in 2012 and was in charge of all of the firm's major work in Atlantic Canada. He is a Nova Scotian, graduate of the Dalhousie school of Architecture and resident of Marriott's Cove, Nova Scotia.

He has extensive experience designing master plans for residential communities and understands the related economics of land development and housing construction gained from his over 40 years of working for the real estate development industry.

He has a thorough knowledge of the planning process, was a member of the Mississauga Urban Design review Committee, has led many of the firm's design Charrettes with municipal clients and resident groups and believes that the creative management of the design process fosters optimal urban community infill.

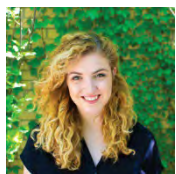
For this project Jamie will support the team as a master plan advisor.



Lisette Wright BEDS (ARCH), BSC

Lead Architect, Advisor

Lisette has 25 years' experience in architecture and construction project management. Lisette started her career in Singapore and returned to Canada where she opened and managed architectural offices in Halifax and Vancouver. She values the relationships fostered over the years in the partnerships with local stakeholders, consultants, contractors, and Authorities Having Jurisdiction, all of which helped achieve quality work on schedule. Her management and construction administration roles on recent large scale mixed-use projects in Halifax, Municipal Building for the District of Lunenburg, and hospitality project for Cape Breton Resort has honed her craft and provides the skills necessary to help Nova Scotia integrate and transition to a sustainable future and commit to a more equitable and barrier free province for all.



Catriona Moggach MCIP, RPP

Planning Lead

Catriona is a Registered Professional Planner (RPP) with IBI Group with proven experience in the public and private sector, ensuring accessibility and inclusivity are at the centre of development initiatives. Her strong written, analytical, and project coordination skills enable her to effectively contribute to a range of development projects in rural and urban settings, understanding the unique context in which she works. Catriona is well-versed in policy frameworks that impact and influence planning, allowing her to meaningfully oversee the successful implementation of a wide range of projects. With a keen interest in affordable housing, the public realm, and heritage matters, Catriona is an adept project manager who will bring together differing interests to ensure the effective delivery of a concept plan that responds to the aspirations of the Town and helps to support a complete community in Lunenburg.

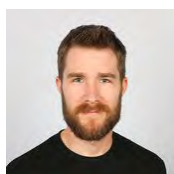


Demetrius Yannouloupoulos P.Eng.

Engineering Lead

Demetrius has over 30 years of civil engineering experience that includes road widenings, infrastructure renewal projects, stormwater management, environmental assessments and land development. His land development experience has been for residential and commercial developments providing preliminary engineering studies, master servicing studies, public consultation, agency approvals, detailed design, cost estimates, tendering and contract administration.

Demetrius will be responsible for the master servicing plans for the development schemes.



Tim O'Brien MLA, OALA, MALA, SALA, CSLA

Urban Design/Landscape Advisor

Tim is an integral part of IBI Group's Placemaking team, a group within IBI that focuses on pedestrian-friendly streetscapes, inclusivity and accessibility in the public realm, and the creation of vibrant communities at all scales. For this project, Tim will provide guidance on matters related to landscape architecture and urban design, having proven experience bringing together a dynamic set of skills to the landscape architecture and urban design projects he is involved with. Tim's background in Architecture, Urban Design, and Landscape Architecture brings together complementary design principles that share a common language. Tim has a professional interest in the interaction between built form and site and contributes expertise in such physical, experiential and functional connections. Tim leans on his artistic abilities using graphic and traditional methods of illustration, which he believes are invaluable tools for effective communication.

5. Project Fee and Schedule

5.1 Project Fees

The following Team Time Matrix outlines the hourly rate for each team member and their allotted hours for each task proposed in the work program/approach. This fee schedule includes all labour, subconsultant fees, and disbursements, but does not include HST.

The Proposal Form included in Appendix C includes HST.

Invoicing is billed monthly only for work completed. IBI Group will not complete any extra work beyond the proposed work plan above without written consent from the Town of Lunenburg.

Expenses such as out-sourced photocopying (e.g. reports), outsourced printing (e.g. complete drawing submissions, tender and contract drawing reproductions), mileage, and couriers will be invoiced at cost to a maximum of 8% of the total fee.

5.2 Project Schedule

The following Gantt chart outlines the key tasks, milestones, meetings and presentations as per the work program/approach, see Appendix. The following provides a brief summary of the proposed schedule:

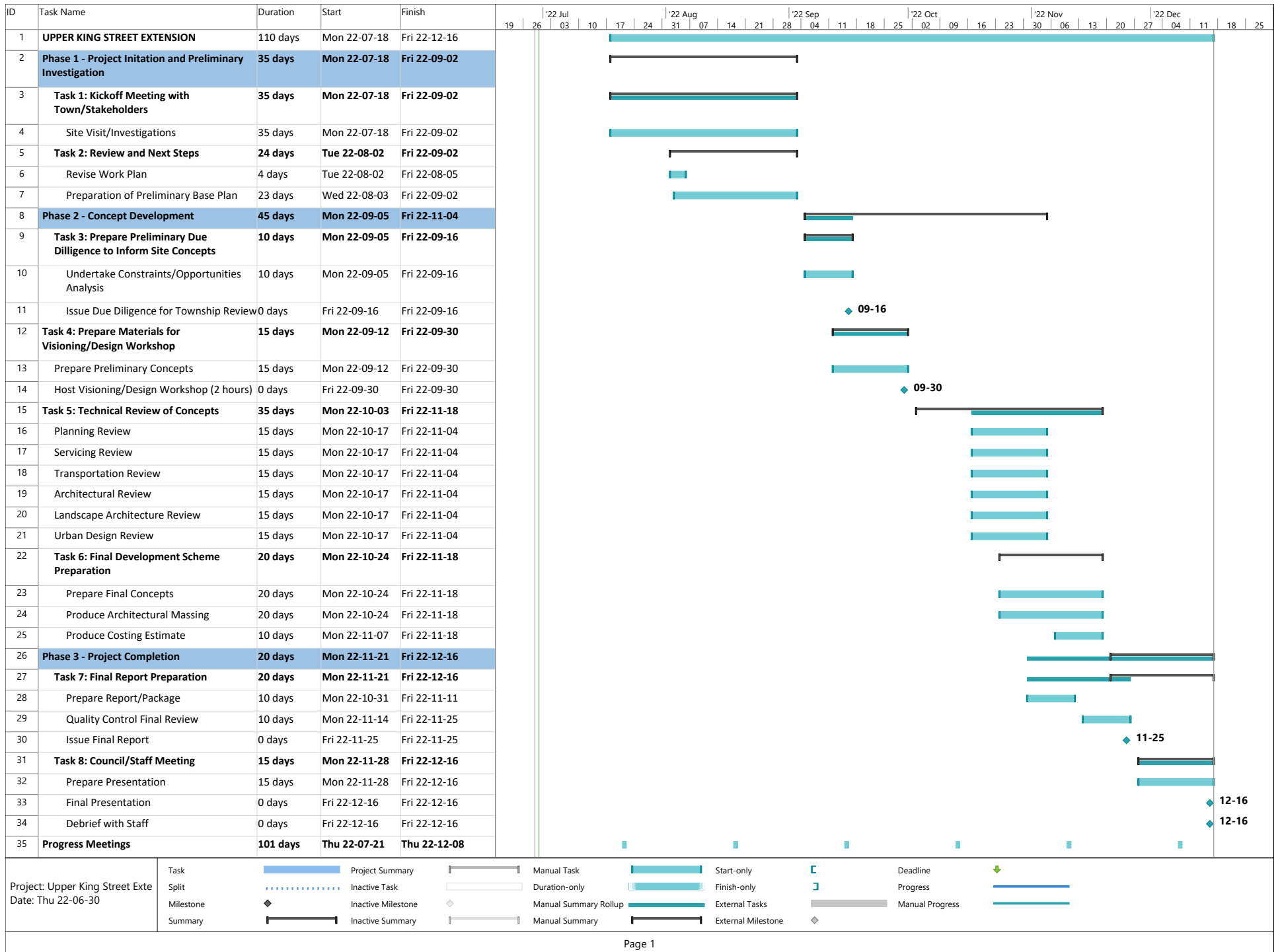
- Phase 1 would commence once the project was successfully awarded and would take approximately 6 weeks to complete.
- Phase 2 would commence following the completion of Phase 1 and would take approximately 7 weeks to complete.
- Phase 3 would commence following Phase 2 and would take approximately 3 weeks to complete.



Town of Lunenburg: Upper King
Street Extension Development

IBI GROUP - PROJECT AND CONSORTIUM LEAD

TIME/TASK MATRIX FEE SCHEDULE	Team	PROJECT MANAGEMENT AND COORDINATION			PLANNING AND URBAN DESIGN			CIVIL ENGINEERING / TRANSPORTATION		LANDSCAPE ARCHITECTURE		ARCHITECTURE		TOTAL HOURS PER TASK
	Hourly Rate	Trevor McIntyre (Project Director)	Jamie Wright (Advisory)	Paul Riley (Planner, Project Manager)	Catriona Moggach (Professional Planner)	Tim O'Brien (Urban Design Lead)	Planning/Urban Design Technician	Demetrius Yannouloupoulos (Team Lead)	Engineers / Support	Tim O'Brien (Landscape / HeritageLead)	Landscape Architecture Support	Lisette Wright (Architecture Lead)	Architecture Support	
		\$ 300	\$ 240	\$ 97	\$ 120	\$ 150	\$ 90	\$ 240	\$ 90	\$ 150	\$ 90	\$ 123	\$ 90	
PHASE 1 - PROJECT INITIATION AND PRELIMINARY INVESTIGATIONS														
Task 1: Kickoff Meeting with the Town/Stakeholders														
Meeting Preparation, Coordination				2										2
Meeting Attendance		2	2	2										6
Site Visit/Investigations			2	2										4
Task 2: Review and Next Steps														
Revised Work Plan		1	1	2										4
Base Plan Preparation				1			10							11
TOTAL HOURS - PHASE 1		3	5	9	0	0	10	0	0	0	0	0	0	16
PHASE 2 - CONCEPT DEVELOPMENT														
Task 3: Prepare Preliminary Due Diligence to Inform Concepts														
Due Diligence				3	1	1		1				1		
Opportunities and Constraints Matrix			1	3	1	1		1		1		1		9
Task 4: Prepare Materials for Visioning/Design Workshop														
Prepare Preliminary Concepts			1	2			12							
Host Visioning/Design Workshop		2	2	2			6							
Task 5: Technical Review of Concepts														
Planning Review				1	3		10							14
Servicing Review								2	8					10
Transportation Review								2	8					10
Architectural Review												2	8	10
Landscape Architecture Review										2	8			10
Urban Design Review						2	10							12
Task 6: Final Development Scheme Preparation														
Prepare Final Concepts			1	4			42					2	12	61
Review Final Concepts		1	1	3	2	2		2	3	2	3	2	4	25
Produce Architectual Massing		0.5	0.5	1			3					3	30	38
Produce Costing Estimate			1	2		2		2	6		6	2	6	27
TOTAL HOURS - PHASE 2		3.5	7.5	21	7	8	83	10	25	5	17	13	60	199
PHASE 3 - PROJECT COMPLETION														
Task 7: Final Report Preparation														
Prepare Report/Package			1	6	4	1	2	2	6	2	6	2	6	38
Quality Control Final Review		2												2
Task 8: Council/Staff Meeting														
Prepare Presentation			1	2			6							9
Meeting Attendance		2	2	2										6
Debreif with Town Staff		1	1	1										3
TOTAL HOURS - PHASE 3		5	5	11	4	1	8	2	6	2	6	2	6	58
TOTAL HOURS		11.5	17.5	41	11	9	101	12	31	7	23	15	66	526
TOTAL LABOUR FEES (exclusive of HST)		\$ 3,450.00	\$ 4,200.00	\$ 3,977.00	\$ 1,320.00	\$ 1,350.00	\$ 9,090.00	\$ 2,880.00	\$ 2,790.00	\$ 1,050.00	\$ 2,070.00	\$ 1,845.00	\$ 5,940.00	\$ 39,962.00



Appendix A – Resumes

Trevor J. McIntyre MLA, FCSLA, OALA, AALA, APALA, ASLA, ULI Global Director | Placemaking

Trevor leads the Global Planning, Urban Design and Landscape Architecture practice for the firm, and guide major infrastructure initiatives where placemaking is the foundation of creating livable, sustainable and advanced urban environments.

Trevor is a leading urban planner and urban designer of international repute and a recognized expert in Urban Design, Master Planning, Transit Oriented Development, Public Private Partnership (P3), and Smart City Planning. He has more than 30 years of experience in complex, multi-disciplinary design projects carried out in Canada, United States, Europe, The Middle East, South America and Asia.

Master Planning and Community Design

Ingonish by the Sea, Cape Breton NS - Cape Breton Resorts retained IBI Group in January 2008 to create a Master Plan for this waterfront resort community in Ingonish, Cape Breton. The design addressed factors that included shoreline restoration, servicing and programming, distinctive access points to the development, and the provision of an amenity building, while maximizing ocean views on the property. IBI also designed the resort's architectural character to create the ultimate look of the development in detail so that the entire resort has a distinctive image and/or theme. Phases One through Three focused on the development of 35 villas, 7 townhouses and a community centre. The final phases will develop the adjoining parcel of land which will provide up to 75 units to complete this fully-serviced resort community.

Bell Bay Resort and Kildare Landing, Cape Breton, NS - Bell Bay Golf Club is an 18-hole award-winning course designed by Thomas McBroom, situated in the village of Baddeck, Cape Breton. To create a destination golf club resort community that is appealing to a range of buyer motivations, IBI Group prepared a Master Plan for developing the potential sites on this 346-acre property. The first phase focused on the Kildare Landing site, a 10-acre development parcel on the eastern edge of the golf club. The design for this site provided up to 60 units consisting of condos and villas, or 20 cottages alternatively, which was designed to fit into an overall architectural / landscape theme for the resort which will be developed over several phases. A key feature in this master plan was providing a visual and physical connection to the ocean by incorporating the waterfront property into the overall programming with a rental service and a gathering facility for the resort.

Dalhousie University – Halifax – IBI Group were retained to provide a compelling vision and a comprehensive facility master plan for dramatically changing the Dalhousie University Campus in the next decade. The focus of this master plan is to guide improvements in space utilization and development, and align its current campus plans into a single integrated facilities plan and development program. Capital budgeting and project implementation strategies also form a key component of this master plan.

Cunard Block Halifax, Halifax, NS - The Cunard Site is located at Lower Water St. and Morris St. along the Halifax Harbour in Halifax, NS.

Education

M.L.A. (School of Landscape Architecture),
University of Guelph, Guelph, ON, 1985

Ontario Graduate Scholarship, 1985

Bell – Sargeant Memorial Fellowship for
Recreational Planning/Design, 1983

B.A. Advanced Certificate, (Dept. of Geography),
University of Saskatchewan, Saskatoon, SK, 1981

B.A. (Dept. of English), University of
Saskatchewan, Saskatoon, SK, 1980

Experience

2021– ongoing

IBI Group, Global Director Placemaking

2018– 2021

IBI Group, Global Placemaking Lead
Regional Director, UK/ Ireland, International
Operations

2014–2018

IBI Group, Regional Director, International
Operations

2000–2014

IBI Group/IBI Group Architects, Toronto, ON,
Director

1998–2000

IBI Group/IBI Group Architects, Associate Director

1992–1998

IBI Group/IBI Group Architects, Senior Associate

1987–1992

IBI Group/IBI Group Architects, Landscape
Architect

1985–1987

The Landplan Collaborative

1984–1985

University of Guelph, Teaching Assistant

1982–1984

Meewasin Valley Authority, Designer (Seasonal)

Awards

LA Civic Centre: 2018 Southern California
Development Forum Award – Unbuilt Category

Bhubaneswar Smart City Strategy: 2017
American Planning Association (APA)—Pierre
L'Enfant International Planning Excellence Award;
and 2016 Canadian Institute of Planners (CIP)
Award of Merit – International Development
category

**Toronto 2015 Pan Am / Parapan Am Games
Transportation Plan:** 2016 Canadian Institute of
Planners (CIP) – Award of Merit – Sustainable
Mobility, Transportation and Infrastructure

Barnsley Town Centre Redevelopment: 2016
Practice of the Year Award

**Mohawk's David Braley Athletic and Recreation
Centre:** 2015 City of Hamilton Urban Design
"People's Choice Award"

John Street Roundhouse Park: 2014 CSLA



The design incorporates a mixture of hard and soft landscape spaces while balancing the need for the space to be flexible / programmable and to function in all seasons and all times of the day. The proposed landscape elements are simple and modern, contemporary in design language and well detailed.

Grafton St. Streetscape Study, Halifax, NS - Halifax Regional Municipality (HRM) retained IBI to study Grafton St. in downtown Halifax. This important city block provides a visual and physical connection between the recently constructed Nova Centre, the Scotia Bank Centre, City Hall, and the Grand Parade. The street is a destination for locals and visitors. Despite the cultural significance of this Street, the Streetscape is dominated by vehicular traffic and displays little visual indication of its importance. In order to strengthen the connection between these landmarks and illustrate the cultural significance of this corridor, the streetscape was designed to be a shared street, or “woonerf”, which encourages pedestrian circulation and events, while still accommodating flexible vehicular transportation. The “active areas” (bars, restaurants, theatres) were to allow for gathering spaces that promoted entertainment, rest and socializing. The “non-active areas” (car rental, delivery bay, parking garage) was to discourage gathering to reduce potential vehicular-pedestrian conflicts, and screened where possible.

Nova Centre, Halifax, NS - The public realm around the Nova Centre site extends 2 full city blocks. The site is situated between Sackville St. and Prince St. in downtown Halifax on a challenging steep slope averaging 12%. The urban design had to creatively address the challenging interface between the public and private realm while being mindful of primary and secondary pedestrian/vehicular access and egress routes. The centralized 10,000 sq ft. plaza design incorporates the creative re-routing of the City owned Grafton St. beneath the building canopy which links the commercial, hotel, and convention centre buildings. Within the newly designed Grafton St. layout, there is a flexible and programmable space to serve as a central node to allow for a wide range of pedestrian oriented events while providing a safe vehicular/pedestrian separation. At-grade restaurant patios and retail plazas are designed to tie into the overall design theme.

Wright’s Cove Transit Terminal, Halifax, NS – IBI was retained by Halifax Transit to complete a Schematic level design for a new transit terminal within Halifax known as Wright’s Cove. The site design was to include a large bus platform, multi-use path which connects key pedestrian routes to and from the transit terminal site. Upon completion of Phase 1 (Schematic Design) and after receiving approvals, IBI will be responsible for Phase 2 (Detailed Design).

Barrie Waterfront Strategic Plan Update, Barrie, ON – IBI Group was retained to prepare a Waterfront Strategic Plan Update for the City of Barrie, aiming to address the mounting capacity issues with waterfront parks and amenities and to align with new city-wide priorities. Building upon the 2013 Strategic Plan, the Update will be prepared based on feedback gathered from key stakeholder groups and the public, obtained through two interactive PIC meetings. Key themes, opportunities and constraints identified through stakeholder engagement will guide the Update, aiming to bolster economic development and tourism, uphold universal access and inclusivity and maintain environmental features whilst curbing climate-related degradation. Through these priorities, key activity centres of varying degrees of importance, use and capacity, will be considered to develop a comprehensive plan for the future of Barrie’s waterfront. The Strategic Plan Update will aim to secure the future of the waterfront, as a key feature of the City and its potential development.

John Street Roundhouse Park; 2014
CSLA National Citation Award

King Street, Kitchener Revitalization:
2013 CSLA National Merit Award

Metrolinx Mobility Hub Guidelines: ITE Planning Council Award for Best Project in 2012; National Merit Award from the Canadian Society of Landscape Architects, 2013; and Honorable Mention in the Canadian Institute of Planners 2012 Awards for Planning Excellence, in the category of Sustainable Mobility, Transportation and Infrastructure

Public Realm Design Manual for the Cities of Abu Dhabi and Al Ain: 2011 Honorable mention in the category of urban design from the Canadian Institute of Planners (CIP); and Excellence Award from the International Society of City and Regional Planners (ISOCARP)

City Place Lands, West and Central:
City of Toronto Urban Design Awards

King Liberty Village: Canadian Urban Institute (CUI) Brownie Award—Best Large-Scale Master Planned Community

Memberships

Canadian Society of Landscape Architects (CSLA), Fellow Member

Ontario Association of Landscape Architects (OALA), Member

Alberta Association of Landscape Architects (AALA), Member

Atlantic Provinces Association of Landscape Architects (APALA), Member

American Society of Landscape Architects (ASLA), Member

Urban Land Institute (ULI), Member

Landscape Architecture Accreditation Council (LAAC), Member

Global Affairs Canada, Infrastructure Advisory Group (IAG), Member



Paul Riley BA, CPT Planner & Planning Technologist

Role: Project Manager

Mr. Riley is a Planner and Certified Planning Technician with over eight years of experience on a variety of development projects from initial concepts to securing municipal approvals. He is proficient in AutoCAD and GIS mapping and design of conceptual, site plan and urban land development projects. He has extensive experience in municipal development approvals, Official Plan Amendments, Zoning By-law Amendments, Consents and Site Plan Approval.

Representative Experience

Commercial, Industrial and Residential Planning Services

London Properties East, CBJ Developments, London, ON., (2022-Ongoing) Planning and engineering services, to investigate potential opportunity, constraints and process for consideration of future land uses. Project Manager, responsible for budget control, staffing resources and progress management. Planner, responsible to identify and analyze through a 'desktop' review two (2) properties.

26779 Talbot Line, Samantha Waite, Wallacetown, ON., (2018-Ongoing) Phase 1 (2018-2019) Minor Variance and Site Plan Agreement to convert an existing barn into an event centre with maximum occupancy of 145 persons. Phase 2 (2022) - coordinate Site Plan Amendment in support of a building addition to the subject lands. Project Manager responsible for budget control and quality assurance; and Planner, responsible for site plan and minor variance services.

1345 Huron Street, H3L Ltd., London, ON., (2021-Ongoing) Phase 1 Planning services for the redevelopment through severance of a 3.3 ha commercial plaza. Phase 2: Coordination and management of Consent applications, Conditional Consent Approval and fulfillment of Conditions of Consent, for the severances. Project Manager responsible for budget control and staffing resources. Planner, responsible for due diligence report and sketches.

Wonderland and Wharncliffe Road, North American Development Group London, ON (2021) - due diligence / highest and best use report for a 12.0 ha commercial/mixed-use redevelopment. Planner, responsible for site reconnaissance, background review, report preparation.

84-96 Fanshawe Park Road West, Retailia of North London Ltd., London, ON., (2021-Ongoing) - Planning services for redevelopment through severance of a 4.0 ha commercial plaza. Planner, due diligence report and expropriation review services.

4465 Wellington Road South, South Wellington Holdings Inc., London, ON., (2021-Ongoing) Planning services for the redevelopment/repurposing for 4.0 ha commercial plaza. Planner, responsible background review and site plan coordination services.

Education

Diploma in GIS & Urban Planning
Fanshawe College, London, ON
Graduated September 2013

Bachelor of Arts (History)
Concordia University, Montreal, QC
Graduated April 2010

Experience

August 2016 - Present
Planner / Intermediate Planning Technologist
IBI Group, London, ON.

December 2015 – July 2016
Jr. Planner / Intermediate Planning Technologist
IBI Group, Edmonton, AB.

February 2014 – December 2015
Planning Technologist
IBI Group, Edmonton, AB.

October 2014 – January 2015
Junior Drafter
Centerline Geomatics, Edmonton, AB

April 2013 – September 2013
Co-op Student
Municipality of Northern Bruce Peninsula, Lion's Head, ON

May 2012 – August 2012
Planning Intern
Town of Truro, Truro NS

**May 2008 – August 2008
& June 2003 – October 2003**
Site Inspector
CJ MacLellan & Associates Inc. – Consulting Engineers, Antigonish, NS

November 2003 – August 2004
Survey Assistant
All West Surveys, Calgary, AB

Professional Registration

Full Member in the Canadian Association of Certified Planning Technicians

Select Skills

Land Use Planning, Urban Design, Site Plan Design, Municipal Development Applications, AutoCAD, GIS



98 Thames Street, Ingrox Limited, Ingersoll, ON., (2019-2021) Redevelopment of a 1.0 ha site for the expansion of a self-storage business. Planner/Technician, responsible for site plan drawing and approval services.

Elmira and Parry Sound Battery Energy Storage Facilities, Nextera Canada Development & Acquisitions Inc., Townships of Woolwich and Seguin, ON., (2017-2019) Planning services to o conduct the Existing Receptor Inventory and Vacant Lot Receptor Analysis on privately held lands within a one kilometre radius of the proposed Elmira and Parry Sound Battery Storage Facilities. Planner and Planning Technician responsible for zoning bylaw amendment and site plan approval applications.

Municipal Land Use Planning

Municipal Planning Advisory Services, Municipality of Bayham, Ontario – Review and recommendations on planning applications, including consent applications, zoning bylaw and official plan amendments, Official Plan Five-year Review update, public notices and memoranda reports for Council and associated GIS map schedule maintenance and updates, zoning by-law consolidation, and other day to day planning inquiry review and responses.

Comprehensive Zoning By-Law Review, Municipality of Bayham, Ontario - preparation of a zoning by-law review, review of Official Plan updates and housekeeping amendment topics, organized and attended public open house and public meeting, updating GIS parcel fabric and zone boundaries for the entire municipality.

Official Plan Five-Year Review and Comprehensive Zoning By-law Review, Municipality of Bayham, Ontario – Completed a five-year official plan comprehensive update and subsequent Zoning By-law Review, review of provincial policy changes, review of existing and regional example policies and zoning, public meeting, GIS mapping updates, liaison with municipal and Elgin County staff, preparation of amendment application and notice, etc.

Lakeshore Line Shoreline Erosion Strategy, Bayham, Ontario – prepared mapping components, background research, public and landowner notice materials and presentation of report findings at public open house for 4.5 km of municipal road along a receding Lake Erie shoreline.

Residential and Industrial Subdivision Design and Approvals

Avonleigh Subdivision Conceptual Design, Belleville, Ontario – due diligence review and preparation of two subdivision design concepts for a 47 ha residential subdivision.

Creekwood Chappelle Neighbourhood, Edmonton, Alberta – Project lead for a phased 100 ha residential subdivision site, responsible for lot layout, zoning approval, detailed marketing plans.

Kenton/Westwind, Prescott, and Greenbury Neighbourhoods, Spruce Grove, Alberta - conceptual site design plans for a 200 ha residential subdivision, rezoning applications and area secondary plan schedule approvals.

Spruce Village Area Structure Plan Amendment, Spruce Grove, Alberta – Prepared, coordinated and submitted an ASP amendment application for a 0.4 ha site, including exhibit and text revisions, accompanying rezoning application, and organized and led the public consultation meeting.

Robinson and West Haven Neighbourhoods, Leduc, Alberta – zoning approvals and site design plans for a 70 lot/65 ha residential site. Planning Technician, responsible for CADD drawing production.



James M. Wright B. ARCH., FRAIC, PPOAA Advisory Master Planning Consultant

Jamie is a retired director of IBI Group Architects, now acting as a consultant to the firm on design and master planning. Over the past 45 years, he has provided leadership for some of the firm's most important residential, commercial and institutional projects, many of which have received prestigious design awards including two Governor General's Medals in Architecture.

He has had a lifelong interest in master planning, which he views as the exercising of an architect's collective architectural experience.

Representative Experience

Master Planning/Urban Design/Architecture

Master Plan – Collingwood Waterfront, Collingwood, Ontario for Canadian Steam Ship Lines. A 60-acre project including water lots for mixed-use residential, commercial users including a continuous public promenade along the water's edge and the extension of the existing launch basin into a canal system to bring the water towards the downtown.

The Landing at Midland Bay, Meaford, Ontario for Georgian Communities – 20 acre waterfront mixed use development including ± 1000 units on a redevelopment industrial site.

Master Plan, Nova Centre – Halifax, Nova Scotia – 1 million sq ft / \$250 million infill project consisting of mixed-use retail, commercial, hotel and convention centre. Situated on Grafton Street the project includes a shared covered street pedestrian arcade and is currently under construction.

Municipality of the District of Lunenburg new Administration Building.

Inverary Inn, Baddeck, Nova Scotia – new 2 storey hotel building.

Markham Centre – Markham, Ontario – 320 acre / 3 million sq ft of new retail, commercial and residential located in the City of Markham. The project also involved the development of the Motorola Canadian headquarters building.

Bank of Nova Scotia Regional Head Office and Commercial, St. John's Newfoundland – 250,000 square feet of new office development between Water Street and the waterfront with underground parking designed to resist the seasonal high tides.

Master Plan – Dalhousie University (2016) Agricultural Campus – Truro, Nova Scotia; and (2008) Halifax, NS – Comprehensive Plan to connect the Arts and Sciences, Medical and Architecture/Engineering campuses.

Master Plan – Halifax 2014 Commonwealth Games Bid – the proposed redevelopment of Shannon Park on the Halifax waterfront as the Games' venue converting a new residential community after the Games including a new ferry to downtown Halifax.

Education

B.Arch., Dalhousie University and Technical University of Nova Scotia, Halifax, 1967

Harvard Graduate School of Design, 1967

Solomon Scholarship in Engineering, Dalhousie University, 1963

Experience

2013–Present

IBI Architects Atlantic, Director

2008–Present

IBI Group Architects, Toronto, ON, Director

1980–2008

Young + Wright Architects Inc., Toronto, ON, Principal

1980–1992

Walker, Wright, Young Associates Limited, Planning Consultants, Toronto, ON, Principal

1973–1980

James Wright Architect, Toronto, ON Principal

1967–1973

Jerome Markson Architects, Toronto, ON, Associate

1967

Componoform Inc., Architects and Engineers, Cambridge, MA, Architect

1964–1966

Duffus, Romans, Single and Kundzins, Architects, Halifax, N.S., Intern Architect

1963

City of Halifax, Planning Department, Halifax, N.S., Student

Memberships

Royal Architectural Institute of Canada, Fellow

Nova Scotia Association of Architects

Ontario Association of Architects, President, (1987–1988)

Housing Committee, Toronto Chapter, Member (1970–1974)

Toronto Home Builders Association, Director (1982–1984)

Rosedale/Moore Park Association, Director (1973–1978)

Building Committee, Design Exchange, Director and Chairman (1990–1995)

Fundraising Committee, Dalhousie School of Architecture, Chairman (2000–2003)

Member, Urban Design Review Committee, City of Mississauga - 2010

Master Plan – Palermo Green Sustainable Community, Oakville, Ontario 100-acre residential development designed using enhanced sustainable principles.

Master Plan for the New York City 2008 Olympic bid including studies to determine the location of the main event stadium, by the covering of the Pennstation rail yards and the future development of a downtown residential community (i.e. the Hudson Yards now in construction).

Master Plans for two new residential communities in Stayner and Fort Erie ($\pm$ 2000 units) for CBJ Developments.

Master Plan and Architecture Design – Bank of Bermuda Headquarters (HSBC) Building – Hamilton, Bermuda – new building built on the waterfront in the historical downtown district.

Master Plan – Woodbridge Core Revitalization – mixed-use residential, retain and intuitional, Winner of Ontario Revitalization Award.

Various master plans for waterfront residential projects in Windsor, Chester, Summerville Beach, Marriott's Cover and Ocean Point, Aspotogan Peninsula.

Lisette Wright BEDS (ARCH), BSC Project Manager, Architectural Designer, Contract Admin.

Role: Architecture Lead

Ms. Wright has been practicing architecture for over 25 years, primarily in construction project management. Her focus on commercial properties in particular and frequency as a full time 'on site' architectural representative have given her an in depth knowledge and understanding of commercial building codes, processes, and site-related issues.

Ms. Wright brings a wealth of experience dealing with both large corporate clients as well as small private projects to bear on some of IBIs most challenging issues. She is noted for her sound judgement, attention to detail, political tact, and interpersonal skills when dealing with clients, consultants, and construction contractors. She brings solid organizational, planning and problem-solving skills to each project and delegates tasks with clear, concise communication to fellow team members. Ms Wright aims to inspire accountability and a passion for understanding the nuances of the field with junior team members.

Ms Wright is well-versed in Auto CAD, with a functional knowledge of Revit as well as the full suite of common office applications. These skills ensure the effective and timely production of construction and design drawings, documents, Certificate of Payment, and Schedules.

Representative Experience

Municipal Building, Town of Lunenburg, Cookville, NS (2018-2021)– 15 000 ft² municipal services building housing administration areas and council chambers. Institutional design through to Contract Administration and Site Review of Construction.

Inverary Inn Resort Rebuild, MacAulay Resort Ltd., Baddeck, Cape Breton, NS (2019-2021), The new building includes 24 guest rooms, support offices, restaurant, pub, and a future spa. The main level's rustic 'Great Room', displays a large fireplace built from the field stone foundation of the original Lodge design through to contract administration.

Nova Centre, Rank Incorporated, Halifax, NS (2014-2018) 1 million sq ft / \$250 million infill project. A six-storey Convention Centre Atrium, linking pedestrian movement between the Argyle Street entrance and the Convention Centre, as well as Rogers Square at Grafton Street and continuing further to the fifth and sixth level conference meeting room facilities, ballroom, and pre-function areas. The Convention Centre facility is a multi-level complex formed with 1.5 acre of column free space situated below grade to reduce the overall building massing and a 2,790m² ballroom, seating 3,000 people in a column free flexible space, situated on Level 5. consisting of mixed-use retail, commercial, hotel and convention centre. Contract Administration

Education

B.E.D.S., Architecture, Technical University of Nova Scotia (Dalhousie Tech), Halifax, NS, 1996

B.Sc, Biology, Engineering, Acadia University, Wolfville, Nova Scotia, 1993

Experience

2015– Present

IBI Group, NS, Project Manager, Designer, Contract Administration

2003–2014

Turner Fleischer Architects Inc, NS, Ont, AB, BC, Project Manager, Architectural Intern, Office Manager

1999–2003

Fowler Bauld & Mitchell Architects Ltd, Halifax, NS Architectural Intern

1997–1999

MATRIX Design Studio, Singapore, Architectural Intern

1997

Department of Housing and Municipal Affairs, Halifax, NS, Architectural Intern

Certifications

Fall Protection

WHIMIS

Emergency First Aid – CPR "A" / AED



Hollis Street Development (The Maple), Southwest Properties, Halifax, NS (2014-2017) – The Maple comprises of residential and retail uses in a sustainable 350,000 sq ft, 21-storey development. A four-storey podium responds to the scale of the podium building immediately to the south. The building is set back from the south property line to create a mid-block east-west connection allowing a direct link from Hollis Street to Lower Water Street. This link is animated at grade by a restaurant located at the south face of the development with seating spilling out on to the patio creating a vibrant urban space. The lobby is then immediately located just north of the restaurant and is accessed off of Hollis Street. Access to parking and loading are located at the northeast corner of the site with three levels of below-grade parking. Contract administration & Site

South Park Street Development (Pavilion/YMCA + Curve), Southwest Properties, Halifax, NS (2015-2018) A mixed use development comprised of two buildings linked by underground parking and outdoor pedestrian court. The outdoor pool deck is located on the 7th level of the Curve Tower's amenity podium with views to the historic Halifax Public Gardens. The main pool and adjacent spa area are surrounded by a large lounge area and barbecue terrace. Direct access to fitness facilities, washrooms, boardroom, theatre, and shared kitchen further compliment this space. Architectural Site Review of Construction

Barrington St. Development (The Roy), Starfish Properties, Halifax, NS (2014-2018) – The site is located between Barrington Street and Granville Street in Halifax. This project comprises a 22-storey building with a six-storey podium, that references the scale and materiality of the existing building. It incorporates retail, residential, above grade parking, and amenities such as indoor pool and entertainment. It boasts the first car elevator in the Maritimes. The total GFA above grade is 250,000 sf. Some of the building's features include: podium & tower of expansive glass, metal, stone & brick; multi-purpose amenity rooms, including indoor pool, gym, kitchen and wet bar, and boardroom; landscaped terrace and, more. Architectural Site Review of Construction

Turner Fleischer Architects Inc.

Various Commercial Developments in Vancouver, Calgary, and East Coast – Project manager.

Loblaw Distribution Centers – full time 'on site' Architectural representative for Loblaw food/retail stores across Canada

Assisted in ensuring project code compliance for various jurisdictions, expedited permits and managed submittals.

Prepared payment certificates/progress draws and reviewed pricing for change orders.

Prepared working drawing documentation, coordinated engineering drawings and specifications, and shop drawing review.

Loblaw Companies Ltd: various banners: City Market, Atlantic Superstore, No Frills

Canadian Tire Commercial Development - full time 'on site' Architectural representative with full duties as described above.

Surrey Memorial Building – Prepared Code compliance documentation for City of Surrey and managed submittals. Coordinated engineering consultants. Consulted with various city departments and Authorities.

Fowler Bauld & Mitchell Architects Ltd Fowler Bauld & Mitchell Architects Ltd.

Atlantic Superstores throughout the Maritime Provinces - Prepared full working drawings and documentation, coordinated engineering. Assisted in ensuring code compliance of projects. Provided design review and shop drawing review.

Dartmouth Regional Hospital, PC Digby School – assisted in design development, working drawings, and construction details



Catriona Moggach MCIP, RPP Urban Planner

Role: Planning Lead

Catriona is a Registered Professional Planner with IBI Group. Her strong written, analytical, coordination, and design skills enable her to effectively contribute to a range of development projects in rural and urban settings, understanding the unique contexts in which she works. Catriona is well-versed in land use policies and framework that influence and shape communities. This breadth of experience allows her to meaningfully assist in securing development approvals for mixed-use, industrial, residential, and institutional projects for public and private sector clients. Her work includes conducting policy reviews, preparing planning rationale reports, urban design briefs, and official plan and zoning by-law amendments, as well as preparing applications for site plan approval, draft plan of subdivision, and minor variances, among other planning services.

IBI Group Experience

Centurian Homes, Amaranth ON – Assisting in the coordination and implementation of a Draft Plan of Subdivision to create 73 new serviced lots in the Township of Amaranth, ON.

350 Yorktech Drive, Markham ON – Assisting the Regional Municipality of York in securing a Temporary Use By-law for a vehicle storage facility on a vacant site in Markham Ontario.

Minett, Township of Muskoka Lakes ON – IBI Group has been undertaking a review of the Provincial, regional, and municipal planning framework for a private landowner in the Resort Village of Minett to determine opportunities and constraints to development. Catriona is actively involved in this work by undertaking detailed due diligence for the lands and providing policy direction.

Peel Housing Corporation, Caledon ON – Conducted a preliminary due diligence on behalf of Peel Housing Corporation for a site within the Mayfield Area of Caledon, ON. This included a review of all applicable Provincial, regional, municipal planning and policy framework as well as relevant housing studies and design guidelines.

Orchard Subdivision 5209 Stonehaven Drive, Burlington ON – Coordinated land use planning and engineering services to submit a redline revision to amend an existing Draft Plan of Subdivision to enable the creation of 10 single-detached lots and 8 townhouse units.

Weston Road and Major Mackenzie Drive West, Vaughan ON – Prepared an Urban Design Brief and materials for the Urban Design Review Panel in support of a mixed-use development at the northwest corner of Major Mackenzie Drive and Weston Road. The development proposes four residential buildings, a retirement residence, and seniors' rental housing.

Vaughan Metropolitan Centre (VMC) Block 3N, Vaughan ON – On behalf of the largest landowner within the southwest quadrant, Catriona assisted in preparing a Planning Rationale Report in support of a Zoning

Education

Master of Planning in Urban Development,
Ryerson University, Toronto, ON, 2017

Bachelor of Arts (Honours) in English Literature
and Geography, Queen's University, Kingston,
ON, 2015

Experience

2019–Present
IBI Group, Toronto & Ottawa, ON, Planner

2017–2019
The Planning Partnership, Toronto, ON, Urban
Planner

2016 – 2017
Ryerson University, Toronto, ON, Graduate
Research Assistant for +together design lab

Memberships

Member of the Ontario Professional Planners
Institute (OPPI), Registered Professional Planner

Member of the Canadian Institute of Planners
(MCIP)

Awards and Publications

2017 Faculty of Community Services' Graduate
Writing Award, Ryerson University

2016 Ontario Graduate Scholarship

2015 Ryerson Graduate Scholarship

2015 Dean's Honour List, Queen's University,
Department of Geography and Planning



By-law Amendment application for Block 3N to implement a mixed-use development comprising four condominium towers with a significant amount of ground related and amenity space.

Burlington Lands Partnership Roster, Burlington ON – Catriona is part of IBI Group's roster for the Burlington Lands Partnership, a subsidiary of the City of Burlington that oversees the management and development of surplus lands.

1 Steelcase Road, Markham ON - Assisting a private landowner with the redevelopment and modernization of a large, existing industrial site, located at the intersection of Steelcase Road West and Woodbine Avenue, in Markham.

4496 Tomken Road, Mississauga ON – Leading the redevelopment of a vacant site for two industrial buildings on behalf of a private landowner in an Employment Area of Markham, including overseeing and coordinating all subconsultants, working with municipal staff and local stakeholders.

Pinnacle Uptown, Mississauga ON – Assisted in the preparation of a Planning Rationale Report and engineering coordination for Official Plan and Zoning By-law Amendment applications for Phase 4 Part IV and Phase 5 of the Pinnacle Uptown development at Hurontario Street and Eglinton Avenue.

3 Swift Drive, North York, ON – Assisted in the preparation of a Planning and Urban Design Rationale Report, Housing Issues Report, Community Consultation Strategy, Community Services and Facilities Study, and Zoning By-law Amendments in support of a rezoning and Housing Conversion and Demolition Application to facilitate the development of 824 new residential units, including 61 rental replacement units .

180 Finch Avenue West, Toronto ON – Assisted in the Preparation of a Community Services and Facilities Study to support official plan and zoning bylaw amendment applications. The study included a review and analysis of the available community services and facilities within the defined Study Area, including schools, libraries, parks and open spaces, community recreation centres and social services.

Previous Experience

Lincoln Fabrics Redevelopment, Port Dalhousie ON – Assisted in securing rezoning for a mixed-use redevelopment of an iconic industrial building with a significant heritage component in Port Dalhousie, St. Catharines. Prepared a Planning Rationale Report and Urban Design Brief in support of the application, as well as produced public consultation materials and presentations for Council and the Heritage Committee.

34,36 Erb Street, 49 Dupont Street Rezoning, Waterloo ON – Assisted in preparing the initial submission for a Zoning By-law Amendment application including a Planning Rationale and Urban Design Brief for a proposed 24-storey mixed-use building in Downtown Waterloo that retains an existing heritage building.

Toronto Community Housing Corporation (TCHC) – Firgrove Revitalization, Toronto ON - Prepared a Planning Rationale Report in support of rezoning and draft plan of subdivision applications on behalf of TCHC for the Firgrove-Grassways revitalization at Jane and Finch. The proposed redevelopment to create a mixed-use, mixed-income community will consist of six new residential buildings, a community centre, and a public park.

9704 McCowan Road, Markham ON – Assisted in securing development approvals for a mixed-use development comprising a mid-rise building and three townhouse apartment blocks by preparing a Planning Rationale Report and Urban Design Brief, and Zoning By-law Amendment.

Revera Downtown Barrie Retirement Residence, 49 Collier Street, Barrie ON – Assisted in coordination of a Site Plan Approval Submission on behalf of Revera Inc. by preparing a Planning and Urban Design Brief in support of a 14-storey retirement residence located in Downtown Barrie.



Demetrius Yannouloupoulos P.Eng. Director, Office Lead

Role: Engineering Lead

Demetrius is a professional Civil Engineer with over 30 years of experience in the land development industry in both Ottawa and Kingston. He is also a Director of IBI Group, and the Ottawa Office Lead. Demetrius has been involved in detailed design and construction administration of numerous commercial and residential developments in the Ottawa area. These projects include feasibility studies, preparation of cost estimates, cost sharing analysis, as well as detailed design and construction administration.

Representative Experience

Former CFB Rockcliffe Redevelopment, Ottawa, ON – Canada Lands Company – This project consisted of updates to utilities and infrastructure studies as the Former CFB Rockcliffe transitioned to the new neighbourhood of Wateridge Village. Demetrius was the Project Director responsible for the overall completion of the works.

Redevelopment Study for Former Forintek Property, Ottawa, ON – Canada Lands Company – Demetrius was the Civil Engineer responsible for servicing options for a redevelopment study evaluating the opportunities and constraints of the Forintek property site, the development of a number of options for the property, and a recommended development option. Subsequently, CLC engaged IBI Group to complete the detail design of the subdivision, and Demetrius was the Project Manager of that design assignment.

National Defence Medical Centre Redevelopment Analysis, Ottawa, ON – Canada Lands Company – IBI Group was retained to carry out a concept plan assessing options for medical centre lands utilizing background information from an ongoing lands study to develop alternative land use concepts and to provide the Client with professional advice on the lands study work program, and draft land use concept. IBI Group completed a design concept and financial analysis of this 44 acre site, with the intent of determining a realistic, innovative, and financially feasible redevelopment program for the property. The design concept included a mix of residential, commercial, and office uses in a development pattern that complements the surrounding neighbourhood. IBI Group provided policy and regulatory proposals for the site that would allow for the successful implementation of the design concept. Demetrius was responsible for developing site servicing options for redevelopment of this 45 acre site adjacent to the 90 acre Health Science Centre.

Point Fredrick Drive and General Crerar Crescent, Kingston, ON – Defence Construction Canada – IBI Group was retained to undertake reconstruction for several key roads within the Royal Military College in Kingston. The team was responsible for the detailed design of approximately 900 m in length of road reconstruction, involving an assessment of existing sewers and underground utilities and the retrofit of storm water quality treatment devices for existing storm sewers, recommendations, and design of remedial works. The project also involved consideration for development in archaeologically significant

Education

B.Sc. (Civil Engineering), Carleton University, Ottawa, ON, 1984

Experience

2017 – Present
Director, Ottawa, ON

2012 – 2017
IBI Group, Ottawa, ON, Associate Director, Manager of Land Development

2007 – 2012
IBI Group, Ottawa, ON, Associate, Manager of Land Development

2004 – 2007
IBI Group, Ottawa, ON, Manager of Land Development

2001 – 2004
Cumming Cockburn Ltd., Ottawa, ON, Director of Land Development

1990 – 2001
Cumming Cockburn Ltd., Kingston, ON, Engineering Manager

1987 – 1990
Cumming Cockburn Ltd., Ottawa, ON, Design Engineer

1987
Cumming Cockburn Ltd., Brockville, ON, Design Engineer

1985 – 1986
Kilborn Ltd., Maitland, ON, Field Engineer



areas and along shorelines, and a submission of the National Master Specifications for tender. Demetrius was the Project Manager responsible for the overall completion of the works.

Singles Quarters and Training Facility, Kingston, ON – Defence Construction Canada – IBI Group was retained to review several potential sites for new singles quarters and training facility within in CFB Kingston. Services included completion of option analysis to identify the preferred site for a future complex of dormitories in Vimy Barracks. Demetrius was the Project Manager responsible for the overall completion of the works.

Roadway and Infrastructure Renewal for Radar Avenue and Signal Road, Kingston, ON – Defence Construction Canada – Road and infrastructure renewal of Radar Avenue and Signal Road to support development of the new site for the Signals Quarters. Demetrius was the Project Manager and Senior Designer responsible for the overall completion of the works.

Private Land Development

Mer Bleue, Ottawa, ON – Claridge Homes – IBI Group carried out the Transportation Impact Study and Serviceability Studies for the Mer Bleue Community Design Plan (MBCDP). The study area for the MBCDP is located within the Orleans Expansion Area of the East Urban Community, City of Ottawa. The study area is approximately 1,220 hectares. Intensive public consultation was undertaken during the study with residents, stakeholders, and approval agencies. The study recommendations include required modifications to the adjacent and future road network to accommodate the phased development together with appropriate recommendations regarding municipal servicing of the development area. Demetrius was responsible for the servicing studies for this 220 hectare master servicing study for this new urban area within the City of Ottawa.

Cataraqui North Redevelopment Master Servicing Study, Kingston, ON – Tamarak Corporation – Demetrius was the Civil Engineer responsible for a master servicing study for this municipal development of a 250 hectare site residential and commercial community in the City of Kingston.

West Barrhaven Secondary Plan, Ottawa, ON – DCR Phoenix Development Corporation – Demetrius was the Civil Engineer responsible for design options to service this 700 acre business park and low to mid-density residential development.



Tim O'Brien MLA, OALA, MALA, SALA, CSLA Associate | Manager - Landscape Architecture

Role: Urban Design/Landscape Architecture

Tim brings a wide range of skills to the Landscape Architecture and Urban Design projects he is involved with. Tim's education in Architecture, Urban Design, and Landscape Architecture brings together complementary design principles that share a common language. Tim has a professional interest in the interaction between built form and site and how the relationship contributes to physical, experiential, and functional connections.

Tim regularly leans on his artistic abilities to support with high-quality graphic design and traditional methods of illustration such as hand sketching, which he believes are invaluable tools for effective communication.

Feature Representative Experience

Cordon Farms Urban Design Study (2021-Current) – Paris, Ontario

A client with approximately 50 hectares (124 acres) of agricultural land in the Town of Paris is proposing to develop the lands into an iconic mixed-use residential community called the Cordon Farms. IBI Group is currently assisting in the master planning and design review process of the community, and is tasked with leading the preparation of an urban design study.

The study demonstrates the compatibility of the master plan proposal within the surrounding context and how it addresses planning and urban design objectives outlined in applicable references, including the Provincial Policy Statement (2020), and the County of Brant Official Plan (Current).

Tim is leading the study while contributing to the overall master plan design.

NS&T Trail Master Plan (2020-Current) – Niagara Falls, Ontario

The project area is comprised of a 9.3km section of the historic Niagara, St. Catharines & Toronto (NS&T) Railway corridor footprint which extends east-to-west across the City of Niagara Falls. With help from public and stakeholder input, the Trail will provide an all ages and abilities connection across the City with consideration for user comfort and safety, minimizing impacts on existing infrastructure and the environment, maximizing existing connections, and providing homage to the historic NS&T Railway.

Tim is the Project and Landscape Architecture Lead.

Wellandport Streetscape Master Plan (2019-2020) – West Lincoln, Ontario

This project involved working with the Local Municipality, Region and community members to develop a Streetscape Master Plan for a 1 km stretch of Regional Roadway through the Hamlet of Wellandport, Ontario. To coincide with future upgrades of the two-lane road,

Education

Master of Landscape Architecture,
University of Guelph, Guelph ON, 2016

Bachelor of Architectural Studies,
Carleton University, Ottawa ON, 2011

Experience

2020–Present

IBI Group, Hamilton, ON, Associate/Manager
Landscape Architecture

2015–2020

IBI Group, Hamilton, ON, Landscape Architect

2012–2013

L360 Architecture, London, ON, Junior
Architectural Designer

Memberships & Affiliations

2019–2020 (2 yr Term)

Urban Design Peer Review Panel Member
City of London, ON

Ontario Association of Landscape Architects
Full Member with Seal

Manitoba Association of Landscape Architects
Full Member (Out-of-Province) with Seal

Saskatchewan Assoc. of Landscape Architects
Full Member (Out-of-Province) with Seal

Canadian Society of Landscape Architects

Publications

OALA Ground Magazine, *Battery Park Chair*
(Fall 2017)



considerations for intersection improvements, the addition of bike lanes, sidewalk upgrades and additions, boulevard landscaping, streetscaping improvements and placemaking (branding) were the subject of the master plan.

Tim led the project team and provided conceptual designs, conducted public and stakeholder sessions, and developed final master plan report.

Mount Hope Community Park (2017-2020) – Mount Hope, Ontario

Mount Hope Park is an existing Community Park just south of the City of Hamilton. The existing park featured a historically significant library building, softball diamond, tennis courts and a youth playground area. IBI Group was retained to prepare a master plan and provide concepts for the rejuvenation of this aging park to meet the changing needs of local residents and City-wide visitors who use this park for various sports and community events.

IBI Group provided in-house Landscape Architectural, Civil and Electrical Engineering as well as contract administration services from masterplan through to tendering and construction.

Tim led the project from concept development through design implementation and construction.

Prudhommes Landing Mixed-Use Community (2018-2020) Master Planning & Urban/Landscape Design Guidelines – Vineland, Ontario

Intended to be a diverse, and walkable waterfront community, this 37ha mixed-use development on the south shore of Lake Ontario adds an exciting and evolving destination within the broader Niagara Region. The mixed-use development intends to demonstrate best practices and innovations in community building; including social, economical, and environmentally sustainable design strategies to go along with deeply rooted local cultural heritage influence.

Additional Landscape Architecture and Urban Design Experience

- Halton District School Board Roster (appointment) – Halton Region (Burlington), Ontario
- Toronto District School Board Roster (appointment) – Toronto, Ontario
- Port Picton Waterfront Urban Design Peer Review – Prince Edward County, Ontario
- Davis Tannery Landscape Master Plan, Urban Design Guidelines – Kingston, Ontario
- 1 Rosetta Street Mixed-Use Development, Urban Design Guidelines – Georgetown, Ontario
- Leitrim Pond (Stormwater Management Pond Expansion) Tender – Kanata, Ontario
- Bella Gardens Prestige Employment Area, Urban Design Guidelines – Brantford, Ontario
- William Connell City Wide Park Development – Hamilton, Ontario
- Northridge Public Golf Course Revitalization – Brantford, Ontario
- Jordan Village Urban Design and Streetscape Revitalization – Jordan, Ontario
- Valley Park Library Landscape Design – Hamilton, Ontario
- 1 Wellington Street Apartments Streetscape/Urban Design – Brantford, Ontario
- Uptown (King Street) Waterloo Streetscape Design – Waterloo, Ontario
- 64 Main Street Student Residence Urban/Landscape Design – Hamilton, Ontario
- King City Block Plan – King City, Ontario
- Rockmosa Park Master Plan Development – Rockmosa, Ontario
- Green Millen Waterfront Trail – Stoney Creek, Ontario



Appendix B – Proposal Form, References Information and Addenda

REQUEST FOR PROPOSALS
Upper King Street Extension Development

3.0 PROPOSAL FORM

NAME OF PROPONENT: IBI Group Architects (Canada) Inc.

Do not include HST in the Amount of Proposal. All of the below pricing is to be in Canadian Dollars.

Amount of Proposal **\$39,962.00**

HST..... \$ 5,195.06

Total..... \$45,157.06

Please attach the following additional information:

- Start and end time required to complete the work.
- Two relevant work references and contact phone numbers.

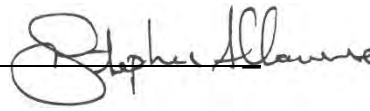
Mailing Address 1105-1645 Granville Street

HALIFAX, NS B3J 1X3

Phone Number 1-902-442-9844

Email Address Paul.Riley@IBIGroup.com

Signature



Print Name & Title Trevor McIntyre,

Stephen Albanese

Global Director

Associate Director

Placemaking

Practice Lead, Planning

Date June 30, 2022

Witness



Paul Riley (Witnessed approval to apply digital signatures)

Date June 30, 2022

Details of Proposal – please attach your submission details as required in this RFP.

References

PROJECT	THE LANDING AT MIDLAND BAY
CLIENT	Jay Beech Georgian Communities Manager of Development
ADDRESS:	85 Bayfield Street Suite 500 Barrie, ON LAM 3A7
P: 1 (703) 730-5900 E: JBEECH@GEORGIANCOMMUNITIES.CA	

PROJECT	MUNICIPALITY OF THE DISTRICT OF LUNENBURG MUNICIPAL OFFICE
CLIENT	Stephen Pace Municipality of the District of Lunenburg Director of Engineering, Project Management and Public Works
ADDRESS:	10 Allée Champlain Drive, Cookville, Nova Scotia, Canada, B4V 9E4
P: (902) 541-1339 E: STEPHEN.PACE@MODL.CA	

PROJECT	GRAFTON STREET STREETSCAPE STUDY
CLIENT	Barry Yanchyshyn Halifax Regional Municipality Landscape Architect, Urban Design Planning & Development
ADDRESS:	P.O. Box 1749 Halifax, Nova Scotia B3J 3A5
P: (902) 490-3967 E: YANCHYB@HALIFAX.CA	



Municipality of the District of Lunenburg

Engineering & Public Works Department

April 27, 2021

10 Allée Champlain Drive,
Cookville NS B4V 9E4

To whom it may concern,

**RE: REFERENCE - IBI GROUP - [MUNICIPALITY OF THE DISTRICT OF LUNENBURG -
NEW MUNICIPAL SERVICES BUILDING]**

IBI Group provided architectural services for our new Municipal Services Building project in Cookville, NS. IBI Group acted as prime consultant providing master planning, architectural design, project management and contract administration services. This project was completed in October 2020 and finalized in the cost range of \$8.6 million.

The new 17,000 sf building is wood framed with a metal roof and wood siding / brick veneer exterior. The building has public spaces, including Council Chambers, as well as employee work areas. The building design has been well received by employees, Councillors and area residents. Features include in-floor heating in public areas; security system; advanced audio-visual systems; emergency generator; electric vehicle charging, enhanced accessibility features, and many others. The building achieved 40% under the efficiency requirements of the 'Model National Energy Code for Buildings (MNECB) – a 10% improvement over what was requested.

IBI Group, along with master planning and design leadership of Jamie Wright and team members Lisette Wright, Martha Archibald, and Neil Munro, successfully completed the following tasks: all design phases from preliminary design to construction documents, specifications, building codes, room data sheets, tendering and bid review, user group

meetings, permit coordination, consultant and contractor coordination, enhanced accessibility coordination, contract administration, progress reports, progress claims, and post occupancy.

IBI Group represented themselves with a high degree of professionalism and cooperation with our employees, Council, consultants, sub-consultants and contractors.

I believe IBI Group is a very capable firm and would have absolutely no reservations in recommending them for future work. Please feel free to contact my office directly if you have any questions regarding their past performance or project history.

Yours truly,

A handwritten signature in black ink, appearing to read "Stephen W. Pace". The signature is fluid and cursive, with a large initial 'S' and 'P'.

Stephen W. Pace, MBA, P. Eng.
Director of Engineering and Public Works

Phone No: (902) 521-4066
Email: stephen.pace@modl.ca

TOWN OF LUNENBURG

REQUEST FOR PROPOSALS

Upper King Street Extension Development
TOL2022016

ADDENDUM #1 – June 14, 2022

This addendum is being issued in response to questions received from potential proponents regarding the above-mentioned Request for Proposals (RFP) (which in some instances have been rephrased). This addendum should be added to and made part of the original RFP document.

Q1: Does a physical copy of the final proposal need to be submitted in addition to the digital copy?

A1: *Only a PDF copy of the submission is required as outlined in Section 1.6.*

Q2: Will the Town be able to provide a topographic survey, geotechnical report, and environment report for the site? If not, is obtaining those expected as a part of the project scope?

A2: *No, these will not be provided by the Town – Proponents may wish to add these features as part of their proposal to undertake the requested work.*

Q3: The scope of work identifies the need for a general financial cost analysis. Is the Town expecting a certain amount of detail from this (e.g., are you looking for a pro forma, Class D cost estimate, or a more general estimate of construction/site development costs)?

A3: *The Town is only looking for a general estimate and not a Class D or C estimate at this stage.*

Q4: Would Proponents be able to rely on legal review from the Town's legal department for the draft restrictive covenants provided, or would Proponents be expected to obtain external legal review?

A4: *No, Proponents should not expect to rely on the Town's Legal review. We would expect that Proponents will undertake their own due diligence and decide on their own whether they need to obtain further legal review. We are looking for legal options on how best to tie the successful developer to the development schemes as presented. There may be more than one way to accomplish this.*

Q5: Please provide additional information regarding Section 2.1, "The number of accessible units will be based upon the national building code based on the completed

developed site scheme as presented by the proponent (not on individual aspects of the development).”

A5: *The number of accessible units will be based on the entire scheme not the individual buildings. For example, a three-unit building may need one accessible unit – whereas the entire scheme of 50 units would need a higher number of accessible units – not solely based on individual buildings.*

Q6: Section 2.1 states “proponents should note that properties are known to be archaeological hot spots and if any artifacts are found they must contact the Provincial Dept of Communities, Culture and Heritage” – is this requirement only for the eventual developer of the property or would we be required to account for it in some way in the creation of the development schemes?

A6: *This should be acknowledged in the documents provided for any future developer of the site to acknowledge and be aware of. It should not affect the creation of the development schemes at this time unless they plan on undertaking any physical digging around the site.*

Q7: The level of detail delivered on some of the RFP components is variable based on available budget. Would you be able to provide us with an idea of the proposed budget for this project so that we can plan a work approach that is suitable for that budget?

A7: *No, the Town will not be providing this information.*

Q8: A timeline for completion and awarding the RFP was not included. Is there a sense of timing on when the Town would award the RFP as well as when they would like to see the work started/completed?

A8: *Timeline has not been determined – will be agreed upon by the Town and the successful proponent.*

Q9: Once the RFP is awarded, will base mapping be provided (i.e., property mapping, LIDAR, topo, etc.) to whom the RFP is awarded? If property mapping is to be provided, will this be provincial mapping or has the site been surveyed?

A9: *Provincial mapping is available. We currently do not have a legal survey except for PID 60057460 which is available on Property On-line.*

Q10: Are there any archaeological or ecological studies that have been completed for the site that can be shared with whom the RFP is awarded to so that they can be taken into consideration during the design?

A10: *No, we have no such studies.*

Q11: The RFP speaks to the extension of services (i.e., storm, sanitary, water, etc.), will mapping and/or GIS data be provided to whom the RFP is awarded?

A11: No GIS data is available – but mapping of services in a general sense can be provided.

REQUEST FOR PROPOSALS
Upper King Street Extension Development

3.0 PROPOSAL FORM

NAME OF PROPONENT: WSP Canada Inc.

Do not include HST in the Amount of Proposal. All of the below pricing is to be in Canadian Dollars.

Amount of Proposal	\$	<u>74,490.00</u>
HST.....	\$	<u>11,173.50</u>
Total.....	\$	<u>85,663.50</u>

Please attach the following additional information:

- Start and end time required to complete the work.
- Two relevant work references and contact phone numbers.

Mailing Address 1 Spectacle Lake Drive
Dartmouth, Nova Scotia, B3B 1X7

Phone Number (902) 536-0913

Email Address anne.winters@wsp.com

Signature 

Print Name & Title Anne Winters, MCIP, LPP - Manager - Planning, Atlantic Canada

Date June 30, 2022

Witness 

Date June 30, 2022

Details of Proposal – please attach your submission details as required in this RFP.



3.0 PROPOSAL FORM - REFERENCES

SEVEN LAKES OPEN SPACE DESIGN DEVELOPMENT, PORTERS LAKE, NS

Contact: Nicole Perchard, Director of Real Estate and Communications

Completed: 2016-2018 (further work ongoing)

Phone: 709-782-5198

Email: nicole.perchard@penneygroup.ca

SHANNON PARK MASTER PLAN, DARTMOUTH, NS

Contact: Glen Boone, Director, Real Estate

Completed: 2016-2018 (further work ongoing)

Phone: (782) 640-9678

Email: gboone@clc.ca

REEVES STREET COMPLETE STREET CONCEPTUAL DESIGN, TOWN OF PORT HAWKESBURY

Contact: Terry Doyle, P.Eng. CAO

Completed: 2018 – ongoing into construction phase

Phone: (902) 625-7890

Email: tdoyle@townofporthawkesbury.ca



Town of Lunenburg - Upper King Street Extension Development Schedule

June 30, 2022

	August 2022	September 2022				October 2022					November 2022				December 2022		
	29	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19
Phase 0: Ongoing Project Management																	
Task 0.1 Ongoing Client Communication & Bi-Weekly Updates																	
Task 0.2 Project Management and Client Communications																	
Phase 1: Getting Started & Background Review																	
Task 1.1 Virtual Project Initiation Meeting	V																
Task 1.2 Topographical and Survey Plan																	
Task 1.3 Review Relevant Background Documents and Policies																	
Task 1.4 Initial Archaeological Information Collection																	
Task 1.5 Site Tour		M															
Task 1.6 Prepare Site Base Plan																	
Phase 2 - Drafting Development Scheme Options																	
Task 2.1 Access & Road Works																	
Task 2.2 Complete Streets & Connectivity																	
Task 2.3 Concept Development Scheme Layouts (4)																	
Task 2.4 Concept Development Scheme Selection									M								
Task 2.4 Service Extensions & Grade Analysis																	
Task 2.5 Massing, Density Calculations & Affordable Units																	
Task 2.6 General Financial Cost Analysis																	
Task 2.7 Draft Restrictive Covenant																	
Task 2.8 Development Scheme Options Memorandum and Layout Drawings																	
Task 2.9 Meeting with Town to Review Draft Documents													M	R	R		
Phase 3 - Final Development Scheme Options																	
Task 3.1 Prepare Final Development Scheme Options																	
Task 3.2 Prepare Final Draft of Restrictive Covenant																	
Task 3.3 Submission of Final Documents																	D

D - Deliverable

M - Meeting

V - Virtual Meeting

R - Review by Town of Lunenburg

Request for Proposals

UPPER KING STREET EXTENSION DEVELOPMENT FOR THE TOWN OF LUNenburg



Image credit: saltwire.com

TECHNICAL PROPOSAL

Submitted by:

WSP CANADA INC
1 SPECTACLE LAKE DRIVE
DARTMOUTH, NOVA SCOTIA
B3B 1X7
TEL: +1 902-835-9955





WSP acknowledges the Addendum #1 issued on June 14, 2022.

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Appendix A: Project Team Curriculum Vitae



LETTER OF INTENT



Anne Winters MCIP, LPP
PROJECT MANAGER – WSP CANADA INC.

In response to your request for consulting services, WSP Canada Inc. (WSP) is pleased to submit this proposal to assist the Town of Lunenburg in residential concepts for the Upper King Street Extension.

WSP's Dartmouth team has a long history of supporting land development and neighbourhood development. Notable recent projects include:

- **Seven Lakes** – The Villages of Seven Lakes is an approved 634-unit, low impact conservation designed community in Porters Lake, Nova Scotia. The planning and design work for the initial phases is complete and houses are built.
- **Shannon Park** – This development intends to add 7,000 residents within 3,000 units, commercial space, and recreational and active transportation amenities within Canada Lands Company's 68-acre site on the Dartmouth waterfront. Through this project, roads and services will also be brought to Millbrook First Nation's lands to help support their development.
- **Reeves Street** – This conceptual design included preparing design options for active transportation facilities on Reeves Street, in the Town of Port Hawkesbury. WSP completed the detailed design, provided tender assistance and construction administration for the project.

Our local, multidisciplinary office consists of civil engineering, planning, transportation engineering, electrical engineering, environmental and geotechnical services, and geomatics services. This allows for the vast majority of the services to be offered from under one roof. The team proposed as part of this response are highly experienced in this type of work. Helping clients assess viable development options and overall feasibility is what we do. We pride ourselves helping clients navigate through these projects from start to finish and have expertise that provide clients with reliable guidance through these (often) unpredictable processes. Our selected team members are excited to use our skills and passion for community development to help Lunenburg create attractive, sustainable and inclusive development schemes.

WSP looks forward to working with the Town of Lunenburg on this comprehensive project. If you have any questions regarding this proposal, please do not hesitate to contact me by phone at (902) 536-0913, or by email at anne.winters@wsp.com.

Yours sincerely,

Anne Winters, MCIP, LPP
Manager – Planning, Atlantic Canada
WSP Canada Inc.



1 PROJECT UNDERSTANDING

We understand that the Town of Lunenburg ('Lunenburg') is seeking design concepts for the Upper King Street Extension Development. The project land parcels which are identified as the following PID's: PID 60057387, PID 60057379, PID 60057395 and Upper King Street Extension - portion of PID 60579687 and consists of roughly 4 acres located on the north side of Old Town sloping towards Lunenburg's Back Harbour. It is our understanding that the development schemes and draft restrictive covenant will be key documents to future development of the presented site.

WSP's Dartmouth office are **experts** in site plan due diligence, concept plan development, and overall feasibility assessment. Our experts in land use planning, urban design, landscape architecture, survey, civil/environmental engineering, and traffic, work together *daily* on various projects across the province which have the same goals, objectives, and deliverables as to what has been presented in this RFP. From small, single site assessments to large-scale master plans, WSP has **extensive local experience and knowledge** to carry forward which will not only provide the desired deliverables but will also serve to guide and advise the Town on not only the services that are required but also to those that may be optional and helpful/recommended.

Our understanding is that Lunenburg wants to approach this project as an opportunity to create a development scheme that meets the current and future needs of its community and to fit within the greater context of the Town. A key objective of this project will be to **investigate the land suitability** of the project through site analysis using topographic survey, housing units/type and density calculations, road and active transportation connection opportunities, parkland provision, and gateway/place making opportunities along side site constraints such as topography and easement placement. **Utilizing site-specific analysis and experience brought through our various in-house experts**, WSP will create four (4) development schemes each of which will present key opportunities and potential constraint solution "work arounds" under each scenario.

We understand that the **projects we work on are specific to the communities** they are located in. As the Town of Lunenburg is a designated **UNESCO World Heritage Site**, this development prospect should give opportunity for the Town to integrate the urban design features and development scale that is so internationally valued and recognized as being historic "Lunenburg". Our team of urban designers will lean into these features and integrate development options that could really create this area of the Town as a gateway feature to the old historic community.

Our team at WSP understands that you need a team to bring expertise and experience in local land use planning that understands the Nova Scotian context. Our team brings this **strong know-how in site plan development** as well while also bringing in some **innovation and insight** from other areas across the country. Our group brings a commitment to professionalism, land development know-how, strong communication skills, recommendations based strongly on community context, and an on-time project delivery system.



1.1 OUR APPROACH TO PROJECT DELIVERY

We believe that the ability to undertake this scope of work in an organized and collaborative manner is a key requirement for successful completion of the project and achievement of Lunenburg's goals. We implement and manage rigorous project management tools (as discussed below) to achieve this, but it is also a philosophy of our overall approach to meet and exceed client's needs and expectations.

For this assignment, we have assembled a team with significant and relevant experience in undertaking similar exercises. Anne Winters, our Project Manager, offers a breadth of experience. Whether its through projects she manages or projects she works on, Anne values working and building relationships with her clients and understands the importance of delivering projects that meet their needs.

Project Management

Our Project Manager will assume the overall coordination and management of the project. We focus on listening carefully to client needs and expectations; building trust with staff and community members; and delivering high-quality project processes and deliverables.

The following are some of our key project management resources:

- **Document Control:** WSP maintains a consistent approach to document control, with redundancies built in to avoid loss of information and maintain our Project Schedule. Our team uses project-specific folders on our internal Microsoft OneDrive site to ensure all project documents are centrally and securely stored. OneDrive platform includes versioning settings and back-ups of documents to minimize the risk of losing documents or valuable information. The platform also permits us to grant external access to a dedicated site (e.g., for the Client Team) to view and upload documents, as required, to avoid emailing large documents.
- **Internal Project Status Reports:** WSP utilizes in-house project management tools, such as internal Project Status Reports (PSRs), to ensure that the Project activities are on track and are proceeding in accordance with the defined schedule. PSRs are a key platform within our project management toolkit, used by project managers to evaluate key metrics such as work completed to-date in real-time. While our Project Manager has access to this vital information at all times, reporting is completed on a monthly cycle and includes senior management oversight.
- **Monthly Reporting & Schedule Monitoring:** Monthly written updates will be provided to Lunenburg in a standard format that reports on the project schedule and deliverable progress. The monthly reporting will also identify any questions and responses in the past period, as well as any new questions or issues identified. We also propose developing a detailed project timeline to translate our conceptual Gantt chart into a detailed list of tasks, including both consulting team and client due dates, review timeframes, etc. Our approach is to identify a target date for tasks and to track actual dates of completion, allowing us to assess variance and make corrections as needed. This will serve as a key project management tool to ensure the Project is fully coordinated with concurrent processes and deadlines. We will monitor and follow the Gantt chart as this Project progresses. Should changes be required to respond to project needs, we will work with Lunenburg staff to find appropriate solutions while keeping a focus on the scheduled end date. Any updates to the Schedule will be provided to Lunenburg staff as part of the monthly reporting efforts.



QUALITY ASSURANCE

Our team is committed to creating high-quality deliverables following WSP's quality assurance processes for all project deliverables. WSP has built-in quality control measures, including an internal Quality Assurance Manual and on-going training for our staff.

An effective Quality Assurance/Quality Control (QA/QC) program is an essential component to the successful completion of the project. At the project management level, WSP has a common electronic platform called *OurWAY* which defines the key steps to which all projects must adhere as well as a common language for project management terms. Within the Project Team, quality assurance and control are integral components of the established system of procedures utilized throughout the project development. QA/QC involves checking project activities and deliverables for conformance with project requirements, standards and industry standards.

Quality Management Process

PLAN

Understand client needs and project requirements while considering the unique nature and risks of the project.

Define the goals and target processes needed to achieve results that meet the clients' requirements while complying with WSP's policies.

ACT

Considering the results at the check stage, analyse data and adjust when needed so as the meet the clients' requirements.

Implement actions needed to correct deviations and to continually improve WSP's products or services.

DO

Carry out activities defined in the planning stage.

Implement everything necessary to ensure the client's satisfaction according to WSP's requirements.



CHECK

Verify that products and services meet the clients' requirements as defined in the planning stage.

Assess the results obtained and define actions to be implemented to correct deviations if need be.



2 OPPORTUNITIES & CHALLENGES

Our team envisions a number of opportunities that the Town of Lunenburg will be able to meet head on as part of this project. Such opportunities include:

- Creating development scheme layouts that are truly the **right fit for Lunenburg** relying on existing Town documents/plans/policies as well as on staff input.
- Accommodating current and future housing demands by providing a **variety of housing types**.
- Rising to the **challenge of climate change** by addressing sustainability as an important aspect of the development schemes.
- Leverage the unique access to and protect **natural landscape** and **historic activity** opportunities, from Black Harbour to Lunenburg Bay and Harbour.
- Expand the community's boundaries through the potential of **creating a gateway** to connecting Lunenburg from Bay to Bay.
- Fostering **community development** through **strategic investments in housing** that can help to catalyze positive growth in this expansion area.

All of the above need to be faced with both fiscal restraint and creativity, with enough flexibility to sustain inevitable changes through short and long-term timeframes. These hurdles, as well as others identified through process, will be assessed and considered during the creation of subdivision feasibility study.

While Lunenburg has a number of opportunities ahead of them as part of this site's redevelopment, our team understands there are also current challenges associated with the site. The following are a list of challenges that WSP feels the Town of Lunenburg are currently facing and how this project can address these challenges.

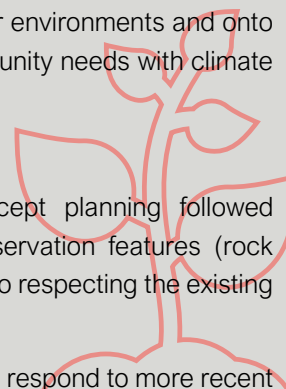
CHALLENGE 1: PLANNING FOR RESILIENCE IN A CHANGING CLIMATE

The Town of Lunenburg benefits from beautiful coastlines, but this, as well as other geographic features, make it particularly prone to climate change and its negative impacts on to the conditions of our environments and onto our livelihood. Our team has significant experience balancing priorities that meet community needs with climate resilience.

OUR PROVEN APPROACH IN...

Seven Lakes Open Space Residential Development – This neighbourhood concept planning followed conservation subdivision design principles to preserve primary and secondary conservation features (rock outcrops, old growth tree stands, scenic views, etc.) to create new housing lots while also respecting the existing environment.

The Municipality of Argyle – The planning documents introduced new floodplain zones to respond to more recent floodplain mapping, which helped to protect flood-prone areas from development and protect property owners from potential flooding, while balancing the need for growth.





CHALLENGE 2: CREATING COMPLETE AND HEALTHY COMMUNITIES

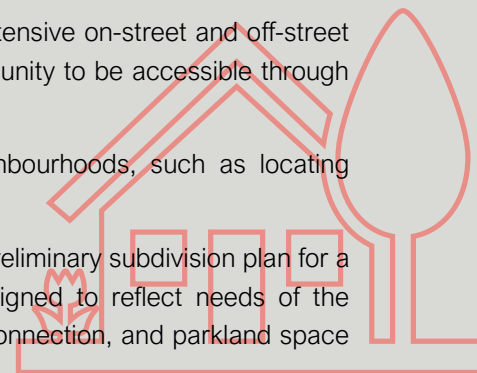
The development of the Upper King Street Extension can help the community to establish a collective vision and concentrate efforts to foster the sort of complete and healthy community desired. Designing the layout of the development schemes for community residents to use active transportation (walking and cycling) in safe and convenient ways helps people live healthy and active lives.

OUR PROVEN APPROACH IN...

Shannon Park Master Plan – The layout of this new neighbourhood includes extensive on-street and off-street (trail) infrastructure, which enhances connections and accessibility of the community to be accessible through safe and convenient ways through active transportation.

The Town of Antigonish – Introduced policies to foster more walkable neighbourhoods, such as locating residential uses fitting for seniors nearby to services.

Lancaster Drive Senior's Living Site Plan – Created a conceptual site plan and preliminary subdivision plan for a 100-unit housing development built for seniors. The neighbourhood was designed to reflect needs of the community including site and new public street layout, lot subdivision, AT trail connection, and parkland space location and layout.



CHALLENGE 3: IDENTIFYING ADDRESSING SITE CONSTRAINTS

Upper King Street Extension presents a fair number of constraints that may impact full development potential for the area including, but perhaps not limited to, site grade and topography, archaeological potential, and easements to service providers. WSP works with constraints like these in many of the site plan feasibility projects we are involved in and have had extensive experience identifying unexpected issues during the preliminary site analysis phase. Utilizing the array of in-house expertise, we can offer potential solutions which we can look to apply to the Upper King Street Extension area.

OUR PROVEN APPROACH IN...

Seven Lakes Open Space Residential Development – This seven-phase development project presented a variety of physical challenges across the site including steep slopes, legislation with condominium development, on-site servicing requirements, and parkland dedication and access easements. WSP were the go-to experts to address solutions for such development constraints and corresponded with third party agencies to negotiate on behalf of the client.

Shannon Park Master Plan – Throughout site plan creation, WSP's subject area experts worked together to overcome site constraints including appropriate land uses, topography, coordination with First Nation land development, negotiating with utility providers for easement placement, while also communicating with HRM during the drafting of the site's Development Agreement.



3 METHODOLOGY

The following Work Plan has been presented in a series of Phases and outlines the Tasks to complete the Upper King Street Extension Development Study. Our proposed methodology is based on our understanding of the requirements in the Request for Proposal (RFP) and our experience undertaking subdivision studies and supporting land development.

PHASE 0: ONGOING PROJECT MANAGEMENT

0.1 ONGOING CLIENT COMMUNICATION & BI-WEEKLY UPDATES

Throughout the project's Phases, the Project Manager will provide short bi-weekly updates to the client team. This will be very brief and to the point; however, it is a useful tool to keep everyone 'up to speed' with recent activities.

The monthly reporting will also identify any questions and responses in the past period, as well as any new questions or issues identified. Any updates to the Schedule will be provided to Lunenburg staff as part of the bi-weekly reporting efforts.

0.2 PROJECT MANAGEMENT AND CLIENT COMMUNICATION

The administrative aspects, as well as the overall project management, will be overseen on an ongoing basis. The Project Manager will provide updates to the project contact regarding project reporting milestones, schedules, deliverables, quality control measures, communication protocols, budgets, and task assignments. Time has been provided for our Project Manager to be in regular communications with Lunenburg's Project Manager throughout the duration of the assignment.

PHASE 1: GETTING STARTED & BACKGROUND REVIEW

1.1 VIRTUAL PROJECT INITIATION MEETING

The Project Initiation meeting will be held to introduce key members of the proposed Project Team with Lunenburg staff and to confirm the work plan for this assignment. Items to be discussed in this meeting may include:

- Establish a common understanding of the recommended work plan, project goals and objectives, potential project risks, the intended outcomes, and what success looks like at the end of the process;
- Present, review and agree on the scope of work, proposed work plan, schedule, and critical path;
- Establish main points of contact for each team and identify additional stakeholders;
- Clarify respective expectations and roles; and
- Obtain relevant background documents.



1.2 TOPOGRAPHICAL & SURVEY PLAN

WSP's in-house survey team will conduct topographic survey(s) of the existing terrain within the Study Area. A team of surveyors will conduct the topographic survey to accurately represent existing site conditions along each study section. The topographic survey will locate, using real world coordinates, all relevant existing infrastructure including general site grades, curbs, power / communications systems, trees, and any other features that may affect the proposed designs. Other information may be collected using either total station or GNSS survey equipment as deemed appropriate by WSP. The data will be presented using AutoCAD drawings with specific layers to distinguish the source of the information and the type of equipment used to collect the data. The final deliverable will be a CAD file, showing the information mentioned above, to be used internally to develop the development schemes.

1.3 REVIEW RELEVANT BACKGROUND DOCUMENTS & POLICIES

Building upon information collected during the kick-off meeting, WSP will want to ensure alignment with already approved strategic directions and initiatives in and around Lunenburg. A full review of relevant documents will be a critical component to our understanding of the Town and its surrounding area.

The goal of this component is to identify and describe the existing documents and policies concerning residential development including street layouts, servicing and park and open space activity in the other resources, summarize these components, and begin identifying how the four (4) development schemes will comply with the documents reviewed. At a minimum, we anticipate the review will include, but not be limited to:

- Town of Lunenburg Municipal Planning Strategy
- Town of Lunenburg Land Use By-law
- Town of Lunenburg's Comprehensive Community Plan
- Town of Lunenburg Subdivision By-law
- World Heritage Site Outstanding Universal Values
- National Historic Site's Statement of Significance

1.4 INITIAL ARCHAEOLOGICAL INFORMATION COLLECTION

As part of the background review for the Upper King Street extension, WSP will contact a member of the Department of Communities, Culture, Tourism and Heritage to assess the likelihood of archaeological potential on the area. This call will inform the probability of finding items of archaeological significance and help determine where potential constraints may lie on the site.

1.5 SITE TOUR

Project team members will travel to the Town of Lunenburg to perform a site visit. The purpose of the site visit is for our team to become familiar with the study area, including noting any nearby key locations (trails, existing connectivity, constraints, etc.) and get an understanding of the community's character.

If desired, a meeting can be organized with the Project Team and the Town of Lunenburg.



1.6 PREPARE SITE BASE PLAN

Mapping is required to bring the necessary spatial context to all four (4) Development Schemes. The base map of the study area will be based on data publicly available, as well as data provided by the client team. This base map will include an aerial image with existing road network, property lines, available contours, and provincial wetland and watercourse data. This base map will be used as the visual framework for site analysis as well as producing the development schemes for future development.

PHASE 2: DRAFTING DEVELOPMENT SCHEME OPTIONS

WSP will prepare four (4) development scheme options, using the background data collected in Phase 1. Two (2) of the development scheme options will consider the existing zoning of the study area (Old Town New Town 2 (ONT2) Form Zone, the Medium Density Residential (RM) Use Zone, and Lot Zone 3) and two (2) of the development scheme options will consider the proposed zoning of Old Town New Town 2 (ONT2) Form Zone, the High Density Residential (RH) Use Zone, and Lot Zone 3 of the study area.

Based on experience in land development and initial feasibility assessment, we anticipate that not all four (4) options developed will be preferred (or even possible) due to constrictions such as topography, costs, and easement agreements. In an effort keep costs down for the Town, WSP is proposing to prepare 4 development scheme options as requested by the Town (showing road network layout and development block provision), and then selecting 2 schemes to carry on a more detailed analysis on such as grading, servicing, and massing.

The following Tasks describe our approach to creating the initial four (4) development schemes, and then selecting two (2) preferred options to carry forward into further analysis.

2.1 ACCESS & ROAD WORKS

Utilizing information collected in Phase 1, WSP will conform to the Transportation Association of Canada (TAC) Geometric Design Guidelines for access to the proposed development schemes and any street intersections within the study area.

As the WSP team prepares the development scheme concept options, the WSP transportation team will complete the road works component which will include road and intersection concept layouts with signage and pavement marking plan. When the intersection concept layout is completed, the appropriate vehicle turning movements will be completed to ensure that the intersection can accommodate the design vehicles, such as a school bus and emergency service vehicles.

2.2 COMPLETE STREETS & CONNECTIVITY

As WSP prepares the development scheme options, we will complete a review of the existing active transportation facilities within the study area which will include sidewalks, crosswalks, bicycle facilities, trail network and connection opportunities. We will recommend future active transportation connections within the study area to provide a framework for a complete and cohesive network that aligns with the complete street and barrier-free design. These recommendations will look for opportunities on how this approach may be integrated into the surrounding road network.



2.3 CONCEPT DEVELOPMENT SCHEME LAYOUTS (4)

Utilizing the road network layouts developed in Tasks 2.1 and 2.2, WSP will create four (4) conceptual development schemes highlighting potential development blocks with proposed zoning, potential building layouts, proposed property lines, access points and road network layout, parking lot layout (where appropriate) and public open spaces / areas for recreation.

These four (4) development schemes will consider all information gathered as a result of the studies and assessments performed, including:

- Potential Archeological assessments (if available);
- Base plan preparation and review of topography;
- Nova Scotia available property mapping;
- Roadways and connectivity; and
- Complete streets and accessibility design.

The concept plans will also consider feedback received during discussions and meetings with the Lunenburg project team during the Getting Started and Background Review phase.

2.4 CONCEPT DEVELOPMENT SCHEME SELECTION

WSP will work with the Town to understand each of the four (4) development schemes prepared in Task 2.3. Together, WSP and the Town will work to select two (2) preferred options to carry forward more detailed analysis on.

During this Task, WSP will submit each of the four (4) development schemes to the client electronically and accompany each with a brief memo highlighting the opportunities and constraints for each. A virtual meeting will be held during this Task to workshop each of the schemes and work towards selecting the two (2) preferred options.

2.5 SERVICE EXTENSIONS & GRADE ANALYSIS

Once the preferred development schemes have been selected, WSP's civil team will carry out the service extensions and grade analysis for the two (2) selected options.

As part of this work, WSP municipal engineers will perform the following:

- Review available mapping of the Town of Lunenburg water, sanitary and stormwater network;
- Prepare preliminary water, sanitary and stormwater service extensions along the proposed road extensions; and
- Prepare a preliminary site schematic servicing option for development option.

Grade Analysis

During the development of the subdivision concept options, WSP will consider preliminary site grading for the developed areas. Included in this will be the following:



- Existing surface grading and contour information. This data will be based off of provincial mapping, as well as the topographic, LiDAR and any additional mapping provided by the Town of Lunenburg; and
- Proposed site grading indicating grade arrows, approximate spot elevations, and approximate clearing, embankment and excavation limits.

WSP will develop the preliminary site grading in coordination with the drainage assessment.

Stormwater, Sanitary and Water Site Servicing

WSP will consider stormwater runoff and drainage during the preparation of the development options. Included in this assessment will be the following:

- Preliminary HydroCAD models will be prepared for each proposed development option, with runoff values based on SCS method and TR-55;
- Stormwater runoff for the for the 5yr, 10yr, 25yr, 50yr, and 100yr design storms will be reviewed, with methods discussed for balancing the Pre/Post Development stormwater runoff.

WSP will also review existing sanitary mapping provided by the Town of Lunenburg and prepare a preliminary sanitary servicing schematic for each development option. This will include:

- Preliminary sanitary servicing requirements based off unit counts / population anticipated for the relevant development option;
- Sanitary servicing options for the development options, including potential requirements for sanitary pump stations.

Finally, WSP will indicate preliminary water service locations and routing for each development option, including proposed hydrant layouts. WSP will perform a desktop review of any available hydrant flow test data for the area, as well as discussions with location utility operators, to assess and comment on the capacity of the nearby water main.

2.5 MASSING, DENSITY CALCULATIONS & AFFORDABLE UNITS

Massing, density calculation and affordable unit options will be prepared for the two (2) preferred development schemes selected. As part of this work, we will prepare a 3-D massing of the preferred plans, calculate a range of dwelling units number for each concept based on gross floor area (GFA), provide comparable totals for each of the concepts and indicate the resulting density. This will require input from the municipality with respect to average gross floor areas for residential units. Should this information not be available, a range will be provided based on best practice to indicate a range of total units and density. As part of this analysis there will be an approach presented on earmarking affordable units for the proposed concepts. The total number of units and density will be provided in a table to allow for ease of comparing the strengths or constraints of each concept.

2.6 GENERAL FINANCIAL COST ANALYSIS

A high-level financial cost estimate for the two (2) preferred development schemes will be prepared. The financial cost estimate will consider the various sizing and massing determined for each scheme, as well as the serving and potential site development requirements. WSP will utilize our industry knowledge and past experience in similar construction project when determining costing. Where possible, WSP will use unit rates obtained from



recent tenders. A contingency will be applied to the financial cost estimate due to the current supply chain issues and market fluctuations in development and construction costs.

2.7 DRAFT RESTRICTIVE COVENANT

WSP will prepare a draft restrictive covenant to reflect the preferred development schemes. Restrictive covenants can ensure that the most salient aspects of the development concept are realized in the final built form and that key elements within the built project will be adhered to by future owners/tenants. At the same time, if these covenants are too restrictive, they may impact flexibility in the development of the lands and to the eventual resident / homeowner. WSP will work with the Town to develop restrictive covenants that are focused on the key and salient aspects of the final concept plans that are required to ensure the resulting development proposed maintains the general intent and purpose of the concept plans developed.

WSP will submit a digital copy in PDF format of the Draft Restrictive Covenant to the Town of Lunenburg for review and address comments and revisions in Phase 3.

2.8 DEVELOPMENT SCHEME OPTIONS MEMORANDUM AND LAYOUT DRAWINGS

Once the two (2) preferred development scheme options are completed, and all design components described above have been assessed, WSP will prepare a development scheme options memorandum summarizing the decision making process from four (4) schemes to two (2), and the design details and intent for each preferred concept option. The memorandum will include copies of the studies and assessments performed on the way to developing the concepts, as well as all assumptions, calculations and design decisions made for each option.

Descriptions of each preferred development option will be provided, and will detail infrastructure, land use planning, the density and number of dwellings, the type of dwellings and the percentage and number of affordable and accessible dwelling units. Comparison of general cost estimates for each preferred option will be discussed. At the end of the memorandum, a recommendation for a single preferred option will be presented with a rationale.

WSP will submit a digital copy in PDF format of all deliverables to the to the Town of Lunenburg.

2.9 MEETING WITH TOWN TO REVIEW DRAFT DOCUMENTS

The WSP team will meet with the Lunenburg team to discuss the Draft of the Development Scheme Options and Development Scheme Memorandum to seek input and revisions to inform the drafting of the final documents.



PHASE 3: FINAL DEVELOPMENT SCHEME OPTIONS

3.1 PREPARE FINAL DEVELOPMENT SCHEME OPTIONS

Based on the feedback from the Town in Task 2.9, WSP will review all input and revise the final deliverables accordingly.

3.2 PREPARE FINAL DRAFT OF RESTRICTIVE COVENANT

Based on the feedback from the Town in Task 3.1, WSP will review all input and revise the Draft Restrictive Covenant accordingly.

3.3 FINAL DEVELOPMENT SCHEME OPTIONS

WSP will submit one (1) digital copy in PDF format of the Final Development Schemes and Final Draft of the Restrictive Covenant, including supporting documentation, to the Town of Lunenburg.



4 PROVISIONAL ITEMS

The methodology presented in Section 3 of this proposal highlights the steps that we anticipate at a minimum would be required to provide the deliverables asked for. Through our experience with sites of similar size and scope, the Town may wish to consider the following list of provisional items to further inform the development scheme options at any point in the project workplan.

*Please note the following list of provisional items have **not** been budgeted or scoped as part of this proposal. Should the Town wish to pursue any of these items as part of the project, WSP would be able to provide the Town with a level of effort reflective to the required need.*

- Traffic Impact Analysis and/or Study;
- Legal Boundary Determination;
- Full Archaeological Assessment (Archaeological Resource Impact Assessment);
- Environmental Assessment;
- Engineering grading and servicing analysis for more than 2 preferred options;
- Massing, Unit Calculation, and Affordable unit measures for more than 2 preferred options;
- Detailed design for engineering services;
- Site renderings, cross sections, or fit-up plans for development blocks and/or parkland areas;
- Urban Design Guidelines;
- Detailed massing and renderings of buildings (beyond what has been described in the presented methodology);
- Planning amendments or zone regulation changes; and
- Anything not described in Section 3 of this proposal.



5 PROJECT SCHEDULE

Our proposed project timeline is shown on the following page, including milestone/deliverables (D), meetings (M), and a review period for Lunenburg staff (R). The specific dates (or weeks) of deliverables will be discussed at the Project Start-up meeting and we note that we are flexible in the timing of tasks and deliverables. Our Schedule has been developed considering an efficient turnaround of review of deliverables by the Client Team to provide for sufficient time to perform the Work Plan within the timeframe.

5.1 EXPECTATIONS WITH THE CLIENT TEAM

Our relationship with the Town of Lunenburg will be built on a common vision of the intended outcome, and on trust, respect and collaboration to drive the successful completion of this engagement. It is our understanding that Town staff support the process by:

- Working with us to manage effective communications and project processes;
- Coordinating, booking and setup of any meeting venue(s), and any room rental fees, refreshments (if offered), and any advertising fees;
- Distributing and collecting materials to/from the various staff departments and external groups (as needed); and
- Responding to requests for information, meetings, and feedback or decisions in a timely manner.



Town of Lunenburg - Upper King Street Extension Development Schedule

June 30, 2022

	August 2022	September 2022				October 2022					November 2022				December 2022		
	29	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19
Phase 0: Ongoing Project Management																	
Task 0.1 Ongoing Client Communication & Bi-Weekly Updates																	
Task 0.2 Project Management and Client Communications																	
Phase 1: Getting Started & Background Review																	
Task 1.1 Virtual Project Initiation Meeting	V																
Task 1.2 Topographical and Survey Plan																	
Task 1.3 Review Relevant Background Documents and Policies																	
Task 1.4 Initial Archaeological Information Collection																	
Task 1.5 Site Tour		M															
Task 1.6 Prepare Site Base Plan																	
Phase 2 - Drafting Development Scheme Options																	
Task 2.1 Access & Road Works																	
Task 2.2 Complete Streets & Connectivity																	
Task 2.3 Concept Development Scheme Layouts (4)																	
Task 2.4 Concept Development Scheme Selection									M								
Task 2.4 Service Extensions & Grade Analysis																	
Task 2.5 Massing, Density Calculations & Affordable Units																	
Task 2.6 General Financial Cost Analysis																	
Task 2.7 Draft Restrictive Covenant																	
Task 2.8 Development Scheme Options Memorandum and Layout Drawings																	
Task 2.9 Meeting with Town to Review Draft Documents													M	R	R		
Phase 3 - Final Development Scheme Options																	
Task 3.1 Prepare Final Development Scheme Options																	
Task 3.2 Prepare Final Draft of Restrictive Covenant																	
Task 3.3 Submission of Final Documents																	D

D - Deliverable

M - Meeting

V - Virtual Meeting

R - Review by Town of Lunenburg



6 RELEVANT PROJECT EXPERIENCE

6.1 SEVEN LAKES OPEN SPACE DESIGN DEVELOPMENT

Project Location: Porter's Lake, NS

Dates: 2016 – 2018 (further work ongoing)

Client: Penney Group

Contact: Nicole Perchard, Director of Real Estate and Communications

T: 709-782-5198

E: nicole.perchard@penneygroup.ca

Project description

The Villages of Seven Lakes is an approved 634-unit, low impact conservation designed community in Porters Lake, Nova Scotia. The Development Agreement (DA) approval process took over four (4) years to complete as it represented leading edge design and planning procedure, as well as first-of-its-kind policy implementation. Seven Lakes is now the pillar for Open Space design communities in Atlantic Canada, and its success is linked to the collaborate and negotiation approach involved with creating one of the most complex and environmentally renowned DA's in recent HRM history.

Approach and Outcome

Seven Lakes offers a range of housing options and prices, including single-detached homes, limited multi-unit buildings and townhouses. These options cater to people at all stages of life, from young families to seniors and empty nesters. Homes are designed to minimize the footprint on the natural environment, have individual character – like a village that has grown naturally over time – and that encourage energy efficiency and incorporates water conservation technologies.

Beginning as a controversial project with nearby residents, the process involved extensive collaboration and consultation with community members and HRM Staff. Through social media, regular updates and one-on-one meetings, we connected with the community, listened to their concerns and incorporated their feedback into the design where appropriate. This effort assisted in building support for the project which assisted in its unanimous Council approval.

WSP Disciplines/Services:

- Policy review;
- Conservation area identification;
- Traffic impact study;
- Conceptual design;
- Concept development;
- Sewage treatment system;
- Stormwater management plan;
- Open space management plan;
- Planning and Engineering services;
- Detailed design;
- Project coordination;
- Community engagement



6.2 SHANNON PARK MASTER PLAN

Project Location: Dartmouth, NS

Dates: 2016 – 2018 (further work ongoing)

Client: Canada Lands Company

Contact: Glen Boone, Director, Real Estate

T: (782) 640-9678

E: gboone@clc.ca

Project description

The redevelopment of Shannon Park was a rare opportunity for a master plan on a large site within the Dartmouth Urban Core. The goal of this project was to create a master planned community where people would want to live, but also to create a waterfront destination.

WSP was hired as the Lead Planning Consultant to advise CLC on all master planning-related matters for the redevelopment of Shannon Park, a decommissioned military site on the Dartmouth waterfront. Planning matters included policy and legislation review, master plan preparation and urban design, public engagement and municipal approval processes.

WSP also completed the Servicing Study for the property.

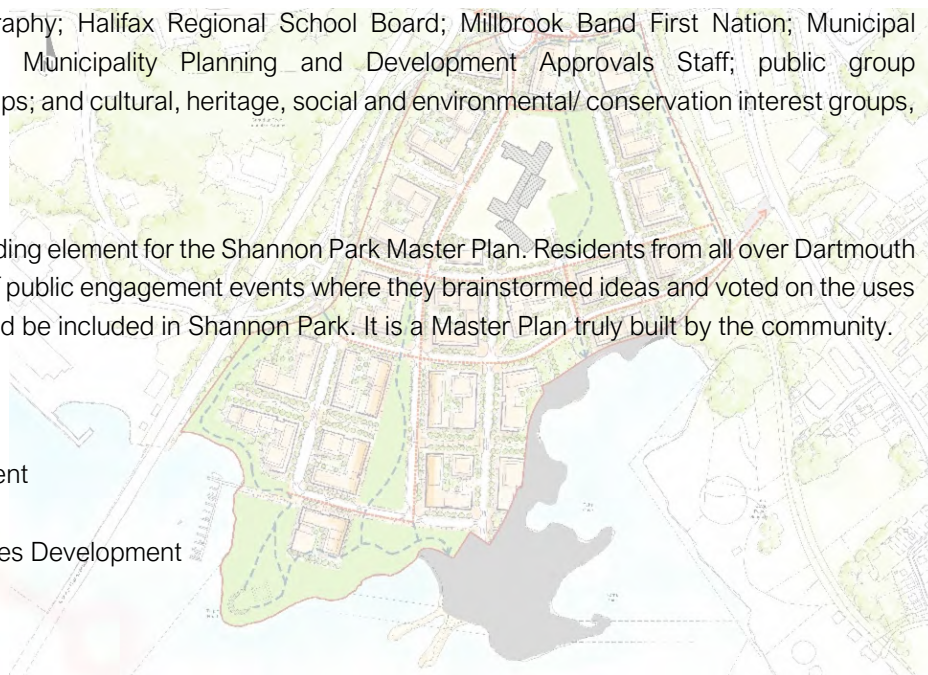
A major component of the project includes key stakeholder consultations, which includes, but is not limited to: Provincial and Federal authorities having jurisdiction; adjacent commercial and residential neighbours; the Bedford Institute of Oceanography; Halifax Regional School Board; Millbrook Band First Nation; Municipal Councillors; Halifax Regional Municipality Planning and Development Approvals Staff; public group representatives; ratepayer groups; and cultural, heritage, social and environmental/ conservation interest groups, among others.

Building on Public Participation

Public participation was the guiding element for the Shannon Park Master Plan. Residents from all over Dartmouth and Halifax attended a series of public engagement events where they brainstormed ideas and voted on the uses and design elements that should be included in Shannon Park. It is a Master Plan truly built by the community.

WSP Disciplines/Services:

- Servicing Study
- Stakeholder Engagement
- Master Planning
- Urban Design Guidelines Development
- Project Management





6.3 REEVES STREET COMPLETE STREET CONCEPTUAL DESIGN

Project Location: Town of Port Hawkesbury

Dates: 2018 – ongoing into construction phase

Client: Town of Port Hawkesbury

Contact: Terry Doyle, P.Eng. CAO

T: (902) 625-7890

E: tdoyle@townofporthawkesbury.ca

Project Description

WSP was retained by the Town of Port Hawkesbury to prepare conceptual design options for active transportation facilities on Reeves Street. Reeves Street's right-of-way is owned and maintained by NSTIR who is completing an access management and a pilot project which includes maintaining the existing curb and reducing the roadway from 4 to 3 lanes (Road Diet). The project included an Active Transportation trail that was off-road and connected into the existing AT facilities throughout the Town. Streetscaping, lighting, pedestrian warrants, traffic signal design was all included in this project. After conceptual design was prepared, WSP completed the detailed design, provided tender assistance and construction administration for the project. The Town of Port Hawkesbury is completing construction on Phase 1 of the project this summer (2019) and plans to complete the remaining Phase 2 in the summer of 2020.

This 2018-2019 project builds on a previous road diet planning study completed by WSP (January – December 2014). That project (Greg O'Brien as Project Manager) included collection of traffic data, traffic analysis, a road safety review, options development and evaluation, and reporting.

WSP Disciplines/Services:

- Planning and Engineering services;
- Project Management/coordination;
- Urban design;
- Detailed design;
- Project coordination;
- Policy review;
- Conceptual design;
- Concept development;
- Construction coordination, inspection and administration;
- Community engagement; and public consultation.



7 TEAM CREDENTIALS/BIOGRAPHIES

7.1 WSP CORPORATE BACKGROUND

WSP's practice in Atlantic Canada has grown in the range of services we provide from our inception as a surveying company located in Bedford in 1973; followed by the establishment of our engineering division in 1988, and our planning division in 1993. In 2010, the Atlantic regional presence of WSP was realized through the acquisition of the Terrain Group, a privately-owned consulting firm with offices in all the Atlantic Provinces. This regional strength was further supplemented by the acquisition of MMM Group and OPUS International in 2016 adding to our transportation advisory, building sciences capabilities and asset management. Today, WSP employs approximately 200 professional staff throughout Atlantic Canada. Our regional head office is headquartered in Dartmouth, Nova Scotia.

Our firm has led numerous land use and policy planning projects throughout Atlantic Canada. Our multi-disciplinary team has engaged with residents from one end of the province to the other and are well aware of the intricacies of local engagement. We have learned how to listen to stakeholders, analyze their concerns, and identify realistic options for resolving them. In addition to the experience gained in Atlantic Canada over the past 35 years, we are able to draw on the expertise from other WSP offices across Canada, when the need arises.

We are proud to serve a wide variety of clients in both public and private sectors. Our locally managed approach gives our clients peace of mind that they will be taken care of from project start to finish. Our continued success is contingent on our dedication to thoroughly understanding our clients' unique needs and circumstances, as well as the market and context in which they operate. Our award-winning portfolio demonstrates the commitment of our team to deliver technically superior and integrated service.

Our planning philosophy is based on professionalism, excellent client service and quality, collaboration, and a team-based approach. We pride ourselves on being available to clients, our local Project Management approach and we draw on our internal subject matter experts and key stakeholders to build the constructive and collaborative project environment that is integral to innovative problem solving and timely issue resolution with proven and successful results.

Our extensive experience helping clients address the challenges of municipal planning and economic development and change has taught us many lessons about how communities can work together to leverage their inherent strengths and capitalize on opportunities. This knowledge and experience have helped us to successfully complete many similar assignments such as policy reviews, land use and growth management strategies and studies, visioning and consultation exercises, urban design, and community revitalization projects and much more.





CLIENT INVOLVEMENT

At WSP, we work 'with' our clients not 'for' our clients and this is very important during the duration of this project. The client is a key part of our integrated team as they have a vast amount of experience related to the task at hand. The Client Team will be included in, or copied on, all relevant communications, emails and conversations. We strive to deliver a successful project but also a collaborative experience. We look forward to establishing long-term relationships as part of this project. Our project team will be here to support the Client Team and work with your Staff to develop a successful project.

7.2 OUR TEAM OF EXPERTS

WSP is proud to present a multidisciplinary team of professionals with extensive experience in engineering, land development and planning. Collectively, our team has the experience required to provide a scope of work that is comprehensive and at the forefront of housing development in Nova Scotia. Our extensive knowledge and understanding of local challenges will help us design new streets and development schemes that are sustainable, follow best practices, and respond to Lunenburg's needs.

Our project team has representation from civil engineering, transportation and traffic engineering, planning, urban design, landscape architecture and geomatics (to support in encumbrance research and land survey needs).

The organizational chart below identifies the key personnel from WSP that will be involved in the project, along with their specific roles and responsibilities. For detailed CVs of each team member, please see **Appendix B**.





7.3 TEAM BIOGRAPHIES

WSP CANADA INC.

Anne Winters | MCIP, LPP

Project Manager, Senior Planner

As a senior planner and project manager, Anne brings a breadth of experience and knowledge gained throughout her time at WSP. Whether its projects she manages or projects she works on, Anne values working and building relationships with WSP's clients and understands the importance of delivering projects that clients can proudly stand behind. Anne strives to deliver high quality projects and utilizes a project management approach that is collaborative and communicative. From project outset to project wrap up, Anne implements open communication between herself, with other WSP project team members, and the client project leads that she works with. Her open communication practice not only keeps the client readily updated, but also ensures to deliverables are clear and that projects are delivered on time and on budget.

Anne's strengths include project management, site planning and development feasibility, public and stakeholder consultation, municipal planning regulations, public speaking and communication, and policy analysis. As a member of the WSP team, Anne has managed a number of multi-disciplinary team projects and often designs and facilitates engagement and consultation activities from various business lines within the company.

Anne excels at communicating with clients and keeping project teams on schedule and on task. Anne thoroughly enjoys working with local stakeholders and residents on projects and uses a variety of consultation mediums to produce thoughtful recommendations that are reflective of community and stakeholder ideas and needs. Some of Anne's most notable projects that she has managed and/or coordinated various team disciplines on for site plan development include:

- Shannon Park Master Plan and Development Agreement negotiation (present)
- Seven Lakes Open Space Development
- Reeves Street Complete Street Plan and Design
- Various site due diligence and concept plan development for sites all across Atlantic Canada.

Relevant Project Examples

- Shannon Park Master Plan
- Seven Lakes Open Space Development
- Reeves Street Complete Street Plan and Design
- Various site due diligences, concept plan development, and development feasibility assessments across Atlantic Canada
- Municipality of the District of Argyle Continuing Planning Services
- Municipality of the District of Argyle Municipal Plan and Zoning Bylaw Review
- Municipality of Florenceville-Bristol Municipal Plan and Zoning Bylaw Review
- HRM Land Use Bylaw Simplification
- City of Dieppe Downtown Master Plan



Erin Sauve | BCD (HONS); BCD

Planner

Erin is a planner that has been involved in a variety of planning projects including the planning approval process, municipal planning, transportation planning, planning policy analysis and commercial and residential development projects. She brings a variety of creative and visualization skills and in-depth research skills to her planning work. She also brings experience in Community Development, including community development research and planning, placemaking, and international community development.

Relevant Project Examples

- Porters Lake Infrastructure Improvement Plan
- Municipality of the District of Guysborough Municipal Plan and Land Use Bylaw Review
- City of Moncton Continuing Planning Services
- Municipality of the District of Argyle Continuing Planning Services
- Fredericton Feasibility Study
- City of Dieppe Recreation Master Plan
- Village of Warfield Municipal Plan and Zoning Bylaw Review

John Tassiopoulos | BA, MCIP, RPP

Urban Designer

John Tassiopoulos is a Practice Lead / Senior Urban Designer with WSP Canada Group Limited. His experience in the areas of urban design and urban planning include the preparation of community master plans, secondary plan studies, urban design guidelines, and architectural design controls. In addition to more than 23 years of professional experience, he is a planning and urban design mentor within the Royal Architecture Institute of Canada's Syllabus Program (2003-present) and a panel member on the City of Vaughan's Design Review Panel (2015-present). Previously he served on the City of London's Urban Design Review Panel. In the past, he has participated in the heritage preservation community as a member of the Toronto Midtown Preservation Panel and the Toronto and East York Community Preservation Panel.

Relevant Project Examples

- Pickering Comprehensive Zoning By-Law Review
- Lincolnville Major Transit Station Area Study, Whitchurch-Stouffville
- Mohawk Lake District Plan, Brantford
- Central Kingston Growth Study, Kingston
- Downtown Core Urban Design Guidelines, Wasaga Beach
- Dieppe Downtown Master Plan, Dieppe, New Brunswick
- Cogswell Redevelopment Project, Urban Design Advisor, Halifax, Nova Scotia
- Bayfield Street / Highway 26 Corridor Study, Township of Springwater



Alison Lumby | BLA, MUAD, OALA, APALA, AALA, SALA, CSLA, CMLI

Practice Lead | Landscape Architecture & Urban Design

Alison is a registered Landscape Architect (OALA, APALA, CSLA) and Urban Designer at WSP and has been delivering high profile integrated landscape and urban design solutions for over 18 years. Alison brings a balanced approach, crafting generous places with an evidence-based understanding of how our environments influence quality of life and enjoyment of place. She promotes universal design in both the design process and implementation, seeking dialogue with the right people at the right time, including vulnerable and traditionally harder to reach groups. Her work for the Mixed-Use TOD flagship development Tremblay Road in Ottawa, a partnership between Canada Lands Company (CLC) and Public Services and Procurement Canada (PSPC) showcases a cohesive approach to sustainability, public health, safety, and mobility. She has experience across all scales of development, from the Town of Port Hope's heritage waterfront to Spring Garden Road and the Cogswell redevelopment in downtown Halifax, to major internal developments such as the mixed-use adaptive redevelopment of the historic Imperial Sugar Refinery Sugarland in Texas. Her work demonstrates how design can help position development in the market, alter perceptions of place and create value. An engaging leader and communicator, Alison has complementary skills in public speaking and facilitation of engagement events.

Colin Fogarty | P. Eng.

Civil Engineer

Colin is a civil engineer who has experience in land development, assessment of municipal infrastructure and asset management programs throughout Atlantic Canada. Colin has participated in a wide variety of land development and asset management projects and studies which encompassed detailed municipal infrastructure inspections and reporting, asset management plan development and the preparation of comprehensive capital planning strategies. Colin has recently been the project manager and/or discipline lead for several infrastructure and asset management studies, including the Halifax Water Wastewater Servicing Separation Study, the Peggy's Cove Improvements Masterplan, the Town of Amherst Infrastructure Assessment, the Town of Bridgetown Transition Committee Infrastructure Study and various servicing and development schematics throughout Atlantic Canada. He is a registered Professional Engineer in the Province of NS.

Relevant Project Examples

- Spring Garden Road Streetscape
- Barrington Beaches Conceptual Design
- Waterfront & Riverwalk Master Plan
- Downtown Reimagined, Town of Grimsby
- Cogswell Interchange Downtown Redevelopment
- Island Lake Conservation Area Concept Masterplan
- Central Kingston Growth Strategy
- Gladstone Station District Urban Design Master Plan

Relevant Project Examples

- Northside Community Health Centre, North Sydney, NS
- Extended – Asset Condition Reporting System, Confederacy of Mainland Mi'kmaq
- Mattawa Plains Compound Development, Petawawa, ON
- Hollis Street Sanitary Services Separation Study, Halifax
- Salvage Processing Facility Site Design, CFAD Bedford
- Eastern District School, Sheet Harbour
- Asset Management Assessment, Amherst



Greg O'Brien | P.Eng.

Senior Traffic & Transportation Engineer

A Traffic and Transportation Engineering specialist with more than 25 years experience, Greg O'Brien has been involved in many projects and studies including conceptual and detailed design projects, site access review and design, active transportation (AT) studies, economic cost benefit, route location, traffic impact, and urban transportation.

Greg has been involved with the functional layout and design for numerous roadways and bicycle facilities throughout Atlantic Canada and has extensive experience in managing and evaluating roadway and AT improvement options. He provides insight into lane use, access management, traffic calming, and signage to help ensure a safer and connected transportation network.

Relevant Project Examples

- Reeves Street Complete Street Conceptual Design
- Spring Garden Road Streetscape
- Windgate Village Open Space Development
- Halifax Regional Municipality Cogswell Redevelopment



8 FEES AND EXPENSES

We have proposed to complete this assignment for a total fee of **\$74,490 excluding HST**. Our detailed fees and expenses can be found on the following page, which includes hours and rates of the proposed team, as well as a price breakdown by phase.



Town of Lunenburg - Upper King Street Extension Development Budget

June 30, 2022

Total Project cost (excluding HST)	\$	74,490.00
Total Project Cost with HST	\$	85,663.50

[illegible]



APPENDIX A

PROJECT TEAM CURRICULUM VITAE





ANNE WINTERS, LPP, MCIP

Manager

Urban and Community Planning

Areas of practice

Project Management

*Site Planning and Development
Feasibility*

Land Use and Policy Planning

Planning Policy Analysis

*Public and Stakeholder
Consultation*

*Development Approval
Applications*

*Active Transportation and
Complete Streets*

Urban Design

Master Planning

*Strategic Action Plan
Development*

Recreation Planning

Cultural Planning

*Cultural Landscape Planning and
Stewardship*

PROFILE

As a project planner, Anne brings a breadth of experience and knowledge gained throughout her time at WSP. Her strengths include project management, site development and concept planning, municipal planning regulations, development agreement applications, policy analysis, public and stakeholder consultation, public speaking and communication, and development feasibility. As a member of the WSP team, Anne has been involved in a range of planning projects including policy and by-law review and updates, public and stakeholder consultation work, community and downtown master planning, and development agreement application and negotiations.

Through this work, Anne has managed a number of multi-team projects, has led focus groups, stakeholder workshops, user group and community surveys, and public open houses. She excels at communicating with clients and developing communication strategies to keep necessary stakeholders included and informed.

EDUCATION

Masters of Urban and Regional Planning, Ryerson University, 2015
Toronto, ON

Bachelor of Science (Biology and Business Administration), 2009
St. Francis Xavier University, Antigonish, NS

PROFESSIONAL ASSOCIATIONS

Member, Canadian Institute of Planners CIP

Member, Atlantic Planning Institute API

Member, Licenced Professional Planners Association of Nova Scotia LLPANS

CAREER

Manager, Municipal Infrastructure, WSP 2022 – Present

Senior Planner, Urban and Community Planning, WSP 2021-2022

Project Planner, Municipal Infrastructure, WSP 2017 – 2021

Junior Urban Planner, Municipal Infrastructure, WSP 2015 – 2016

VOLUNTEER BOARDS

Ecology Action Centre, Board Member, Member at Large 2018 – Present

PROFESSIONAL EXPERIENCE

Project Management

- Municipality of the District of Argyle MPS and LUB Update, NS (2019-2020): Project Manager. WSP has been contracted by the Municipality of the District of Argyle to perform the community's review and update of their Municipal Planning Strategy and Land Use By-law. Work includes extensive community consultation and visioning, research on emerging trends in municipal policy and regulation, review and update of existing documents, and bringing the two forward for Council approval and adoption. As a project planner and project manager, Anne is responsible for communicating with the client, organizing community and stakeholder consultation, overseeing document review and update, and bringing the final Plan and By-law forward to Council and registration with the Province. Client: Municipality of the District of Argyle.
- Rural Active Transportation Decision Making Framework (2019-2020): Project Manager. In efforts to bring consistency and informed decision-making practices for Active Transportation investment in HRM's rural communities, WSP was asked to create a Decision-Making Framework and Toolkit to help facilitate the evaluation process for AT facility requests outside of the urban service boundary. As part of the work, WSP created a 2- and 4-step decision making process and identified criteria that should be utilized when evaluating requests in rural areas. Scoring toolkits were also created as part of the Framework to 1) help HRM evaluate specific facility requests and/or 2) evaluate and prioritize rural communities within the region. Client: Halifax Regional Municipality.
- Municipality of East Hants Transit Plan Update, NS (2020): Project Manager. In light of increased development and population influx, WSP was awarded the contract to create a Transit Service Operating and Business Plan for East Hants. to update a Transit Plan for East Hants that was previously completed in 2015. This Transit Plan reflected a transit route and scheduling services, as well as anticipated capital and operational costs to pilot and run the service for the first three years. The Plan also identified opportunities of vehicle procurement, third party maintenance providers in the community, and governance roles to work with an existing dial-a-ride community transit provider that currently serves residents across the municipality. Client: Municipality of East Hants.
- Municipality of West Hants Greenhouse Gas Emission Study, West Hants, NS (2019 – 2020): Project Manager. In efforts to decrease both corporate and community GHG within the Municipality of West Hants, WSP was hired to conduct a two-part study; 1) to calculate current GHG emissions from the community and 2) produce a Local Action Plan for help achieve lower GHG emission targets. Anne's role was to manage the project budget, schedule and performance and assist in corporate and community stakeholder sessions to collect feedback and input from municipal and community partners. Client: Municipality of West Hants.
- Halifax Water Commission Community Engagement Shed (Summer months: 2018-present): Project Manager. As a public outreach initiative, Halifax Water Commission hired WSP to create and operate a public engagement booth designed to educate residents and visitors on the level of service they provide to their customers in the municipality. Located on the bustling Halifax waterfront, WSP managed and operated an engagement booth that disseminated information related to Halifax Water's ongoing projects in a fun and educational manner. As the project manager, Anne was responsible for designing engagement activities, hiring summer students to facilitate visitor discussion, communicating regularly with Halifax Water on booth progress, and wrapping up each summer season with an end of year report. Client: Halifax Water Commission.

- City of Dieppe Downtown Master Plan, Dieppe, NB (2016-2017): Project Planner and Project Manager. As a follow up to a previously conducted Downtown Parking Study, WSP's planning and design team were contracted by the City to create a downtown Master Plan that helped rejuvenate the downtown core into an active city centre. Anne's role on the project was to coordinate members from seven WSP office locations to help deliver the Downtown Master Plan and Urban Design Guidelines for downtown Dieppe. Other work for Anne also included leading stakeholder and public consultation efforts during the plan development, performing background research on existing and future land uses, assisting in urban and street scape design, and bringing the final report to the client and council for adoption. Client: Expansion Dieppe.

Land Development and Planning Applications

- Shannon Park Master Plan and Development Agreement, Halifax, NS (2015-present): Project Manager. WSP was hired as the Lead Planning Consultant to advise Canada Lands Corporation (CLC) on all master planning-related matters for the redevelopment of Shannon Park, a rare development opportunity in the heart of Halifax's Urban Core. Planning matters include policy and legislation review, conceptual plan preparation, public and stakeholder engagement and municipal approval processes. Anne is currently managing the Shannon Park process through Development Agreement negotiation with HRM on behalf of Canada Lands Corporation. Client: Canada Lands Corporation.
- Seven Lakes Community Regional Plan Amendment and Development Agreement Amendments (2018 – ongoing): Project Manager. Seven Lakes Community is a Conservation Design Community located in Porter's Lake, NS. Anne has coordinated and carried out various planning tasks including due diligence reviews, coordinating HRM meetings, navigating through large-scale development agreement policies, conducting a Regional Plan amendment to protect grandfathered DA policies, and conducting non-substantive DA amendments for phase line changes. Client: Penney Group.
- Various site due diligence and development feasibility (ongoing): Project Manager. WSP's Atlantic Planning Team is routinely asked to guide land owners across Atlantic Canada to assess development potential of sites ranging in small (<0.5 acres) to large (>1.0 ha) of land. Work for these projects include due diligence review including an overview of land use regulations, policies, and site constraints, and coordinating site plan and massing models to illustrate development options and potential. These projects require collaboration with other WSP professionals, land owners, and external consultants (architects, land valuation professionals, lawyers, etc.). Clients: real estate agents, land developers, REITs, land/property owners.
- Killam's 'The Governor' Downtown Halifax Site Plan Approval (2020): Project Manager and Project Planner. WSP represented Killam Apartment REIT to take The Governor through the substantive Site Plan Approval process for their site in Downtown Halifax. Work required by WSP for a Site Plan Approval includes submitting a pre-application, responding to comments from the Municipality, representing the client's interests, coordinating engineering and architectural drawings and subconsultant reports, hosting a public meeting, communication with HRM staff, and presenting to the Downtown Halifax Design Review Committee for final approval. Client: Killam Apartment REIT.
- Development Agreement Amendments for Killam Apartment REIT (2019-2020): Project Planner. Anne represented Killam Apartment REIT for a non-substantive amendment for a DA in place located in the downtown Halifax area. Work included monitoring review process within HRM and overseeing approval through PAC and Halifax West Community Council. Client: Killam Apartment REIT.

- Lantz Master Plan Development Agreement Application and Negotiation (2018): Project Planner and Applicant. Anne represented Clayton Developments Ltd. To prepare, submit and negotiate development agreement terms for a 242 acre development in the Lantz Community in East Hants, NS. Work included analyzing policy and regulations for the Municipality of East Hants, preparing an application package on behalf of the client, communicating and coordinating with East Hants and Clayton Development during negotiation. Client: Clayton Development Ltd.
- Shaw Group Garden Homes Development Agreement Negotiation and Monitoring (2018): Project Planner. Anne represented Shaw Group Ltd. to negotiate and monitor a development agreement for Garden Suite Homes in Lantz, NS. Work included analyzing policy and regulations, communicating with her client and municipal staff, monitoring the adoption process, preparing for a public hearing with East Hants Councillor, and coordinating DA registration. Client: Shaw Group Ltd.
- Property Re-zoning and Land Use By-law Amendment (2017-2018): Project Planner. Anne represented a small-scale developer who wanted to develop a property that was zoned R-1 into a townhouse community for seniors. Anne submitted a re-zoning application for the property as well as a zoning amendment to the townhouse zone to enable a more compact development. Work included preparing and submitting a planning application, overseeing staff review process, communicating with the client, and coordinating internal WSP staff to produce the required material to support the planning application. Client: Woodland Ridge Development.
- Commercial Plan Amendment, Halifax, NS (2014-2016): Urban planner who was involved in a Commercial Plan Amendment for Kent Building Supplies. Responsibilities included reviewing current planning policy and regulation, writing and submitting a full application for a Municipal Plan Amendment, coordinating with civil and traffic engineering services, finalizing a full concept plan, and being the point of contact for neighbouring residents. This project involved meeting with neighbouring residents and presenting the application at a Public Information Meeting as part of the application process. Client: Kent Building Supplies Ltd.

Municipal Planning Work

- Municipality of East Hants Transit Plan Update, NS (2020): Project Manager and Project Planner. In light of increased development and population influx, WSP was awarded the contract to update a Transit Plan for East Hants that was previously completed in 2015. This new Transit Plan will reflect updated routing and scheduling services, as well as anticipated capital and operational costs to pilot and run the public transit service to serve its residents. The updated Transit Plan will also identify opportunities and governance roles to work with an existing dial-a-ride community transit provider that currently serves residents across the municipality. Client: Municipality of East Hants.
- Municipality of West Hants Greenhouse Gas Emission Study, West Hants, NS (2019 – 2020): Project Manager and Planner. In efforts to decrease both corporate and community GHG within the Municipality of West Hants, WSP was hired to conduct a two-part study; 1) to calculate current GHG emissions from the community and 2) produce a Local Action Plan for help achieve lower GHG emission targets. Anne's role was to manage the project budget, schedule and performance and assist in corporate and community stakeholder sessions to collect feedback and input from municipal and community partners. Client: Municipality of West Hants.
- Municipality of the District of Argyle MPS and LUB Update, NS (2019-present): Project Planner and Project Manager. WSP has been contracted by the Municipality of the District of Argyle to perform the community's review and update of their Municipal Planning Strategy and Land Use By-law. Work includes extensive

community consultation and visioning, research on emerging trends in municipal policy and regulation, review and update of existing documents, and bringing the two forward for Council approval and adoption. As a project planner and project manager, Anne is responsible for communicating with the client, organizing community and stakeholder consultation, overseeing document review and update, and bringing the final Plan and By-law forward to Council and registration with the Province. Client: Municipality of the District of Argyle.

- Town of Florenceville-Bristol Municipal Plan and Zoning By-law Review, NB (2019-present): Project Planner. In preparation of a public plebiscite for a regional rural amalgamation, the Town of Florenceville-Bristol have hired WSP to consult with residents, visitors and workers of the Town to identify priorities and areas for strategic growth through the review and update of their Municipal Plan and Zoning By-law. Work includes extensive community consultation and visioning, research on emerging trends in municipal policy and regulation, review and update of existing documents and identifying the Town's priorities, objectives and strategic growth actions prior to a potential regional amalgamation. As the engagement lead, Anne is responsible for organizing community and stakeholder consultation, communicating with the client, identifying key take-aways and priorities for the Town, and ensuring they are incorporated into the final Plan and By-law for Council to review and adopt. Client: Town of Florenceville-Bristol.
- City of Dieppe Downtown Master Plan, Dieppe, NB (2016-2017): Project Planner and Project Manager. As a follow up to a previously conducted Downtown Parking Study, WSP's planning and design team were contracted by the City to create a downtown Master Plan that helped rejuvenate the downtown core into an active city centre. Anne's role on the project was to coordinate members from seven WSP office locations to help deliver the Downtown Master Plan and Urban Design Guidelines for downtown Dieppe. Other work for Anne also included leading stakeholder and public consultation efforts during the plan development, performing background research on existing and future land uses, assisting in urban and street scape design, and bringing the final report to the client and council for adoption. Client: Expansion Dieppe.
- Halifax Regional Land Use By-law Simplification Study, Halifax, NS (2016-2017): Project Planner. In an effort to simplify land use by-laws across Halifax Regional Municipality, Municipal staff hired WSP to develop a comprehensive work plan that would direct Planning and Development to begin merging the 22 land use by-laws for communities across the city. As a primary planner on the project, Anne's responsibilities included conducting background research on comprehensive by-law reviews for communities across Canada, particularly focusing on best practice scenarios and document layout. Anne also conducted staff consultation through facilitated workshop discussions, analyzed the existing policy framework within HRM, and produced a series of reports and recommendation on how Halifax should proceed to simplify and harmonize 22 land use by-laws into one document. Client: Halifax Regional Municipality, Planning and Development.
- Port Wallace Land Suitability Analysis (2015): Project Planner. Prior to proceeding with the Port Wallace Secondary Planning Process, a Land Suitability Analysis (LSA) was performed to determine areas of environmental and cultural importance within the study area (+ 770 acres). Through this work, WSP mapped and assessed natural environmental features, cultural landscape features and engineered structures critical to maintaining natural ecological functions within the PWSPSA. To assist HRM in identifying land suitability for the area, WSP created a decision matrix where land features were assigned values and evaluated across the +770 acres. Anne played a key role in developing the decision making matrix so that the land could be objectively evaluated for best uses. Client: Halifax Regional Municipality.

Transportation Planning

- Rural Active Transportation Decision Making Framework (2019-present): Project Manager and Project Planner. In efforts to bring consistency and informed decision-making practices for Active Transportation investment in HRM's rural communities, WSP was asked to create a Decision-Making Framework and Toolkit to help facilitate the evaluation process for AT facility requests outside of the urban service boundary. As part of the work, WSP created a 2- and 4-step decision making process and identified criteria that should be utilized when evaluating requests in rural areas. Scoring toolkits were also created as part of the Framework to 1) help HRM evaluate specific facility requests and/or 2) evaluate and prioritize rural communities within the region. Client: Halifax Regional Municipality.
- Municipality of East Hants Transit Plan Update, NS (2020 – present): Project Manager and Project Planner. In light of increased development and population influx, WSP was awarded the contract to update a Transit Plan for East Hants that was previously completed in 2015. This new Transit Plan will reflect updated routing and scheduling services, as well as anticipated capital and operational costs to pilot and run the public transit service to serve its residents. The updated Transit Plan will also identify opportunities and governance roles to work with an existing dial-a-ride community transit provider that currently serves residents across the municipality. Client: Municipality of East Hants.
- Transportation Planning Projects: Project Planner. As a planner who specializes in engagement and consultation, Anne frequently partners with WSP's transportation engineering team on a variety of Active Transportation and Transit design projects. As part of these projects, Anne coordinates and leads workshops with staff, external stakeholders, advocacy groups, and members of the public:
 - HRM Transit Priority Corridors Study, (2017-2018)
 - Halifax Urban Greenway Study (2018)
 - HRM Local Street Bikeway Study, (2017)
 - Downtown Kentville Active Transportation Connector (2017)
 - HRM Downtown Bicycle Facilities Review (2017-18)
- Cogswell Interchange Redevelopment, Halifax, NS (2017-2018): Project Planner involved in consulting on the design process for demolition and removal of 1960's highway interchange and redevelopment of full urban community complete with multi-modal right-of-way users. Anne's role was to create material for public and stakeholder consultation sessions and facilitate workshops and public open houses to collect input on how the new downtown community's streets should be designed to facilitate all roadway users. Client: Halifax Regional Municipality.
- Reeves Street Complete Street Plan and Design (2018 – 19): The Town of Port Hawkesbury have been rallying behind a new vision and growth strategy for the Town through a focused re-design and investment to their primary commercial corridor and through fare – Reeves Street. As project planner, Anne's role has been to review surrounding corridor land uses and help plan for a more multi-modal right-of-way that offers safe and comfortable means for travel for all road users. Other responsibilities include client relations, engagement with the local community, and coordinating with WSP's landscape and urban designers and transportation engineers. Client: Town of Port Hawkesbury.
- Region of Queens Municipality Community Transit Plan, ROQM, NS (2016-2017): Project Planner and Project Manager. WSP was contracted by the Region of Queens Municipality to conduct a needs and feasibility report for a community-based public

transit plan that would service the Region of Queens. Anne project managed and led the report by working with staff from ROQM and an established community-driven Steering Committee. Other work included stakeholder and public consultation, research and analysis, route and schedule development, and reporting. Client: Region of Queens Municipality.

- Halifax Regional Municipality Active Transportation Promotion Strategy (2016): In attempts to increase active transportation awareness and overall use within Halifax Regional Municipality, the City has hired MMM Group and WSP Canada Inc. to research and develop a tailored promotion strategy for Halifax residents. Anne's role in the project has been to research and draw on her previous knowledge of active transportation measurement to deliver successful case study examples to tailor the report and recommendations around. Other responsibilities include promotional material design, site visitation and assessment and key informant interviews. Client: Halifax Regional Municipality.

PUBLICATIONS AND PRESENTATIONS

- Winters, Anne. "Development Planning." Presenting to NSCC Architectural Engineering and Architectural Drafting Classes; Halifax, NS, 2015
- Winters, Anne. "How do Professionals Define Complete Street Projects?" Poster Presentation at Transportation Research Board Annual Meeting, Washington, DC, USA, 2016.



ERIN SAUVE, BCD (Hons), BCD

Planner

Planning, Landscape Architecture, and Urban Design

Areas of Practice

Community Development

Land Use Planning

Multiple Criteria Location
Analysis

Review and development of land
use policies and by-laws

Commercial and Residential
Development

Recreation Needs Assessments,
Master Plans & Feasibility
Studies

PROFILE

Erin has been involved in a variety of planning projects including recreation master plans, zoning by-law reviews, planning approval process, infrastructure improvement plans, feasibility studies, and municipal planning. She has strong skills in mapping, GIS, and spatial analysis. In addition to her planning background, she has a degree in community development that focuses placemaking, recreation management, and community wellness.

EDUCATION

Bachelor of Community Design (Honours – Urban Design), Dalhousie University, Halifax, NS 2021

Bachelor of Community Development, Acadia University, Wolfville, NS 2018

CAREER

Planner, WSP Canada Inc. 2021 – Present

Planner - Student Intern, WSP Canada Inc. 2021

Acadia Athletics – Student Intern 2018

PROFESSIONAL EXPERIENCE

Recreation and Leisure Planning

- Recreation Master Plan, City of Dieppe (2021): Planner. Assisting with completing background reports, working with the City of Dieppe on their new 10-year Recreation Master Plan focusing leisure, recreational and sport infrastructure, and parks and green spaces. The process involves extensive staff, user group, and community engagement. This project is a collaboration with Architecture49 and Nustadia Recreation Inc. Client: City of Dieppe.
- Feasibility Study, City of Fredericton (2021): Planner. Assisting with completing background reports, completing a site matrix, and needs assessment. The process involves extensive staff, user group, and community engagement. This project is a collaboration with Architecture49 and Nustadia Recreation Inc. Client: City of Fredericton.
- Physical Activity Strategy (PAS) Update, Town of Antigonish (2020-2021): Student Intern (Planner). Assisting writing staff reports to update their existing PAS. Project involves aligning the PAS with other Town strategies and Bylaws developed in recent years, community engagement, and document writing. Client: Town of Antigonish.

Development Planning

- Telecommunication Public Notification Process Services (2021 – ongoing): Planner. Assisting with handling public and municipal process for telecommunication tower siting for concurrence as per Innovation, Science and Economic Development Canada (ISED) protocol. Client: Bell Mobility.
- Planning Due Diligence Services, Atlantic Canada (2021 – ongoing): Planner. Planning due diligence, concept plan development and policy review, assisting with coordination of multiple disciplines (survey, geotechnical, environmental, traffic and

civil engineering), assisting with approvals for multiple sites throughout Atlantic Canada.

- Monitoring Development throughout Eastern Ontario and Ottawa (2021 – ongoing): Planner. Monitoring development applications throughout various areas within Eastern Ontario and Ottawa.
- Loblaws Inc. Newfoundland and Labrador (2021): Planner. Work includes monitoring development applications and permits for specific locations. Client: Loblaws Inc.
- The Mills Halifax (2021): Planner. Assisting with public engagement, communicating with HRM staff and monitoring of the application. Client: Mills Holding Company.
- Killam’s Carlton East and West Regional Centre Site Plan Approval (2021): Assisting with public engagement. Client: Killam Apartment REIT.

Municipal Planning Services

- Municipality of the District of Argyle, Tuskent (2021 - Ongoing): Planner. Assisting with writing staff reports to reflect planning applications. WSP acting as the Municipality’s Planner. Client: Municipality of the District of Argyle.
- City of Moncton, New Brunswick (2022 – Ongoing): Planner. Reviewing applications, writing staff reports, and Council/Planning Advisory Committee presentations to reflect planning applications. WSP acting as the City’s Planner. Client: City of Moncton.

Community Policy & Regulatory Planning

- Electoral Boundary Review, Municipality of the District of Argyle (2022 – ongoing). Planner. Assisting with public engagement activities such as survey development and public notification boards. Client: Municipality of the District of Argyle.
- Municipality of Guysborough Community Plan Review, Guysborough, NS (2021 - ongoing): Planner. Assisting with public engagement, background reports and research for a comprehensive update to the Municipal Planning Strategy and Land Use By-Law for the Municipality. Client: Municipality of the District of Guysborough
- Inclusionary Zoning Jurisdictional Scan (2022): Planner. Assisting with completing research, conducting public engagement, and report writing.
- Zoning By-law Renewal, Village of Warfield, BC (2021): Planner. Assisting with completing research and background reports. Working with the Village’s new modernized Zoning By-law. Client: Village of Warfield.
- City of Ottawa Zoning By-law Jurisdiction Review (2021): Planner. Conducted background research on comprehensive by-law reviews for communities across Canada, particularly focusing on best practice scenarios and document layout. Conducted interviews with municipal staff from the communities reviewed and assisted in writing the overall report. Client: City of Ottawa.

Urban Design & Public Spaces

- Porters Lake Infrastructure Improvement Plan (2021-2022): Planner. Assisting in SketchUp massing, public engagement and report writing. Client: Porters Lake Business Association (PLBA).



ERIN SAUVE, BCD (Hons), BCD

Urban Planner, Transportation & Infrastructure

- Shannon Park Master Plan, Halifax, NS (2019 – ongoing): Planner. Assisting with community engagement aspect of the project. Working with CLC, SSE, Millbrook First Nation, School Board, HRM. Client: Canada Lands Company.
- New Minas Urban Design and Active Transportation Technical Study (2021): Planner. Assisting completing research and background reports for a technical study of community character supporting the Village of New Minas' plan review. Client: Municipality of the County of Kings.

Transportation Planning

- Colchester Transportation Cooperative Limited (2021 - 2022): Planner. Assisted in completing the background report for the final business plan. Client: Colchester Transportation Cooperative Limited
- Windsor Street Exchange Redevelopment (2021 – ongoing): Planner. Assisted with the community engagement aspect of the project. Client: Halifax Regional Municipality.
- Africville Active Transportation Plan (2021 – ongoing): Planner. Assisted with the community engagement aspect of the project. Client: Halifax Regional Municipality.
- Portland Street-Cole Harbour Road Rapid Transit Feasibility Plan, Dartmouth, NS (2021): Planner. Assisting with completing research and background reports. Client: Halifax Regional Municipality.
- Halifax Transit Marketing and Engagement (2021): Planner. Assisted in managing and scheduling eight students from Dalhousie University, conducting training days and report writing. Client: Halifax Transit.



JOHN TASSIOPOULOS, BA, MCIP, RPP

*Practice Lead / Senior Urban Designer
Planning, Transportation & Infrastructure*

Areas of practice

Urban Design
Community Master Plans
Urban Design Peer Review
Architectural Design
Guidance & Review
Urban Design Guidelines
Transit Oriented Design
Planning Policy
Secondary Plan Studies
Transit Station Urban
Design Conceptualization
Avenue Segment Studies
Streetscape Design
Optimal Use Studies

PROFILE

John Tassiopoulos is a practice lead / senior urban designer with WSP Canada Inc. His experience in the areas of urban design and urban planning include the preparation of community master plans, transit-oriented community design, Secondary Plan studies, avenue segment studies, urban design guidelines and briefs, architectural and urban design peer reviews, and architectural design controls. In addition to more than 23 years of professional experience, he is a planning and urban design mentor within the Royal Architecture Institute of Canada's Syllabus Program (2003-present), a panel member on the City of Vaughan's Design Review Panel (2015-present), and sits as a panel member of the Toronto Local Appeal Body (2018 – present).

John has project managed or assisted on numerous urban design and planning projects throughout his career, ranging from site plan and urban design peer review to community master planning and Secondary Plans. Recent projects include the Mohawk Lake District Plan (Brantford), Dieppe Downtown Master Plan (Dieppe, NB), Prudhommes Secondary Plan – Guidelines and Concept Plans (Lincoln, ON), and the Cogswell Interchange Redevelopment (Halifax, NS). Some noteworthy past projects include developing conceptual plans for the Canada Lands Rockcliffe Community (Ottawa) and the Aurora 2C Lands Secondary Plan and Community Design Guidelines (Aurora).

EDUCATION

Languages

English
Greek

Bachelor of Arts (Honours), Urban & Economic Geography, 1991
University of Toronto, ON

PROFESSIONAL ASSOCIATIONS

Ontario Professional Planners Institute OPPI
Canadian Institutes of Planners CIP

CAREER

Practice Lead / Senior Urban Designer, WSP	2021- Present
Senior Project Manager / Senior Urban Designer, WSP	2013 - 2020
4Transit Consultant to Metrolinx, Eglinton Crosstown LRT & Regional Express Rail, WSP	2016 - 2018
Urban Planner / Urban Designer, The Planning Partnership	2005 - 2013
Project Manager, Architectural Design Control and Urban Design, Watchorn Architect Inc. / THE MBTW Group	2004 - 2005
Planner & Design Control Assistant, Williams and Stewart Associates	1999 - 2004



JOHN TASSIOPOULOS, BA, MCIP, RPP

*Senior Project Manager, Planning, Landscape
Architecture and Urban Design*

PROFESSIONAL EXPERIENCE

Planning and Urban Design Studies

- Pickering Comprehensive Zoning By-Law Review
- Lincolnville Major Transit Station Area Study, Whitchurch-Stouffville
- Mohawk Lake District Plan, Brantford
- Central Kingston Growth Study, Kingston
- Downtown Core Urban Design Guidelines, Wasaga Beach
- Dieppe Downtown Master Plan, Dieppe, New Brunswick
- Cogswell Redevelopment Project, Urban Design Advisor, Halifax, Nova Scotia
- Bayfield Street / Highway 26 Corridor Study, Township of Springwater
- West Queen West Heritage Conservation District Study, Toronto
- Lundy's Lane Community Improvement Plan, Niagara Falls
- Primont Boyne Midrise Urban Design Brief, Milton
- Edmonton International Airport "Main Street" Concept, Edmonton
- Canada Lands Corporation Rockcliffe, Conceptual Block Plans, Ottawa
- University of Ontario Institute of Technology/Durham College Master Plan, Oshawa
- York Region Household and Hazardous Waste Facility, UD Advisor, Markham
- Primont Boyne Survey Community Architectural Design Guidelines, Milton
- Bayview & 19th Avenue Urban Design Brief, Primont Homes, Richmond Hill
- 226 King Road Urban Design Brief, Richmond Hill
- Transit Oriented Townhouse Design Guidelines, Brampton (*Award of Merit*)
- Heron Gate Community Redevelopment Plan Concept, Timbercreek, Ottawa
- 2115-2119 Bloor West Avenue Segment Study, Main & Main Developments, Toronto
- 126 O'Brien Avenue Infill Urban Design Brief, Whitchurch-Stouffville
- Orchards of West Hill Infill Plan, Toronto
- Binbrook Community Plan & Urban Design Guidelines, Hamilton
- Mount Pleasant II Block 201 Urban Design Brief, Brampton
- Fairtree Community Design Guidelines Addendum, Markham
- Jackson's Point Marina Park Redevelopment Design Charrette, Georgina
- South Fields Urban Design Guidelines, Caledon
- Harris/Beech Infill Plan Concepts, Richmond Hill
- Summerlyn Village Urban Design Guidelines, Pickering



JOHN TASSIOPOULOS, BA, MCIP, RPP

*Senior Project Manager, Planning, Landscape
Architecture and Urban Design*

Secondary Plans

- North Cambridge Secondary Plan, Cambridge
- Prudhommes Secondary Plan, Lincoln
- Bram East Secondary Plan Review, Brampton
- Mohawk Lake District Plan, Brantford
- Elfrida Growth Area Secondary Plan, Hamilton
- Aurora 2C Secondary Plan, Aurora
- Southwest Brantford Secondary Plan, Brantford
- Keswick Business Park Secondary Plan, Georgina
- Midhurst Secondary Plan, Springwater Township

Urban Design Peer Review and Planning Approvals

- Town Urban Design Peer Review Consultant, Wasaga Beach
- Blocks 3 & 5 Urban Design Report Peer Review (Homestead), Kingston
- Town Urban and Architectural Design Peer Review Consultant, Ajax
- Town of Whitchurch-Stouffville Urban Design Peer Review (various)
- Town of Georgina Urban Design Peer Review (various)
- Edgewater Estates, Phases 5 & 7 Plan, South Wind Devt., Middlesex
- Community Centre and Mosque, Development Approvals and Zoning Amendments, AMJ Canada, Milton
- 2115 -2119 Bloor Street West Avenue, Development Approval, Main & Main Developments, Toronto
- 300 Valermo Drive Subdivision, Committee of Adjustment Approval, Mattamy Homes, Toronto
- Urban Design Expert Witness, Local Planning Appeal Tribunal Hearing for Blocks 3 & 5 OPA / ZBLA (Homestead Land Holdings), Kingston
- Urban Design Expert Witness, Local Planning Appeal Tribunal Hearing for Apartment Building at 48A Point St. Mark, Kingston
- Brampton Crematorium & Visitation Centre, Development Approvals and Official Plan and Zoning Amendments, Sovereign Group, Brampton
- Aurora Promenade, Design Review and Guideline Implementation, Aurora



JOHN TASSIOPOULOS, BA, MCIP, RPP

*Senior Project Manager, Planning, Landscape
Architecture and Urban Design*

Architectural Design Guidance

- Boyne Survey Community (Primont Homes – 16 Mile Creek) Design Review and Guideline Implementation, Milton
- The Seasons on Little Lake (Hanson), Design Review and Guideline Implementation, Midland
- Aurora 2C Community, Design Review and Guideline Implementation, Aurora
- Hallgrove Industrial Park, Design Review and Guideline Implementation, Aurora
- Neighbourhoods of Northeast Bayview, Design Review and Guideline Implementation, Aurora
- Riverview Heights, Design Review and Guideline Implementation, Brampton
- Block 18, Design Review and Guideline Implementation, Vaughan
- Block 33 (West), Design Review and Guideline Implementation, Vaughan
- Northwest Fonthill Architectural Design Guidelines, Pelham
- Cornell Rouge, Design Review and Guideline Implementation, Markham
- Greensborough, Design Review and Guideline Implementation, Markham
- Upper Greensborough, Design Review and Guideline Implementation, Markham
- Wismer Common, Design Review and Guideline Implementation, Markham
- Traditions, Design Review and Guideline Implementation, Milton
- Hawthorne Village, Design Review and Guideline Implementation, Milton
- Jefferson Forest, Design Review and Guideline Implementation, Richmond Hill

Transportation Planning

- Warden Station Redevelopment – Bus Terminal, Planning and Urban Design Support, Toronto Transit Commission, Toronto
- Yonge Street Subway Extension (Clark & Langstaff Stations), Planning Support, Toronto Transit Commission, Toronto
- Stouffville RER Stations Project, Permits and Approvals Manager, Metrolinx
- Regional Express Rail, Permits, Approvals, and Third-Party Development Review (12 New Transit Stations) Metrolinx, Greater Toronto Area
- Eglinton Crosstown Light Rail Transit, Third Party Development Review and Heritage Review Assistance, Metrolinx, Toronto
- Peer Review of Vaughan Metropolitan Centre Design Guidelines, York Region Rapid Transit Corporation, Vaughan
- Davis Drive Massing Study & Analysis, York Region Rapid Transit Corporation, Newmarket
- Sheppard Light Rail Transit Line, Planning Permits & Approvals, Toronto Transit Commission (URS Canada Inc.), Toronto



Areas of practice

Master Planning Mixed-Use & Transit-Oriented Development, and Urban Design and Architectural Guidelines and Controls

Complete Streets, Streetscape & Public Realm, Parks, Active Transportation & Trails

Environmental Assessment, Resiliency Planning, Low Impact Development, Landscape & Green Infrastructure

Cultural & Natural Heritage Landscapes

Public and Stakeholder Consultation & Facilitation

Education

Master of Urban Design, University of the West of England, 2010

Bachelor of Landscape Architecture Hons., University of Guelph, 2002

Professional Associations

Canadian Association of Landscape Architects, (CSLA) full member with seal in:

Ontario (OALA), 2015

Alberta (AALA), 2017, inactive

Atlantic Provinces (APALA), 2016

Saskatchewan (SALA), 2019, inactive

Chartered Member of the Landscape Institute (UK), 2005

Career

Design Lead, Planning, Landscape Architecture & Urban Design, WSP, 2019 – Present

Sr Associate, HOK, 2014 – 2019

Principal, Atkins, 2003 – 2014

PROFILE

Alison has been delivering integrated landscape and urban design solutions for over 18 years. She is a strategic thinker known for combining socially conscious and ecological site initiatives with innovative site programming. With expertise in community planning and transit-oriented development (TOD), underpinned by award winning design and implementation of parks, plazas and streetscapes, corporate, education and healthcare campuses, landscape infrastructure, restoration, and heritage landscapes, Alison is recognized for her refined creative leadership, technical expertise, and skill in the coordination of complex schemes. Her projects showcase universal design (CPTED & AODA) and sustainable development techniques, including Low Impact Development (LIDs), Sustainable Urban Drainage (SUDs), Green Walls and Roofs, as well as LEED, BREEAM & WELL certified projects. An engaging leader and communicator, Alison has complementary skills in public speaking and facilitation of outreach and engagement.

SELECT PROFESSIONAL EXPERIENCE

- Waterfront & Riverwalk Master Plan, Port Hope, ON (Ongoing): Project Manager, Landscape & Urban Design Lead. Working collaboratively with the Town, Council appointed Working Group, Indigenous Groups and highly engaged community, WSP is working to develop an actionable, community supported Master Plan for the historic waterfront and Ganaraska River. As a fundamental pillar of Port Hope's Strategic Plan, the W+RMP is viewed as one of the most important initiatives the Municipality will undertake in the coming year. Client: Municipality of Port Hope.
- Downtown Reimagined, Town of Grimsby (Ongoing). Urban Design & Streetscape Lead for the update of Grimsby's Downtown Master Plan and Urban Design Guidelines. The UDG shall foster community interaction, the use and enhancement of cultural heritage resources and natural assets through a complete streets approach incorporating flexible spaces for a range of year-round uses. The guidelines address contextual built form, building heights, massing and setback with special consideration to maintaining the small-town scale of the street, and protecting view corridors to the Niagara Escarpment. The project involves consultation with Municipal and Region stakeholders, Downtown Improvement Area (DIA) and public. Client: Municipality of Grimsby.
- Cogswell Interchange Downtown Redevelopment, Halifax, NS (Ongoing): Award winning urban design framework leading to the detailed design and implementation of a series of parks, interconnected public realm and complete streets for the transformation of 16 acres of the downtown Halifax waterfront which focused on creating a new transit-and active-transportation-friendly community. Innovations included integration of stormwater management with structural soil cells to provide healthy treed boulevards and reducing burden on City infrastructure. Client: HRM.
- Tremblay Road, Canada Lands Company (CLC), Ottawa, ON (2021): Landscape & Urban Design Lead. New TOD community being developed as a partnership between CLC and Public Services and Procurement Canada (PSPC). The development plan achieves high-density, low-intensity community growth, maintaining a ground oriented and compact built form that animates the public realm. Contextual guidelines emphasize passive energy reduction and Winter City design principles in built form, building orientation, height, and massing, accommodate mid- and high-rise buildings while ensuring sun penetration to public spaces, and discouraging elements that contribute to harsh winter conditions. The development showcases restoration of former industrial lands into new park spaces, complete streets, LID attenuation ponds and bioswales, and Multi-Use Paths.

Publications & Presentations

Lumby, Alison; Li, Max; Sisson, Jenn. "Landscape and the Smart City" *Ground Magazine, Issue 55, Fall 2021*

Balogun, Denis; Petzold, Bryan; Lumby, Alison. "Imagine Idylwyld: The Goldilocks Complete Street (Made possible in part by: The New GDG)" *TAC Annual Conference, Saskatoon, SK. October 2018*

Lumby, Alison; Jones, Bryan. "Role of the Landscape Architect for SMART Cities." *OALA/CSLA Annual Conference, Toronto, ON. April 2018*

Teaching & Symposiums

Toronto Regional Board of Trade & ULI, Economic Recovery Committee 'Reimagining Recover Framework: Retrofitting Our Urban Region', 2020

University of Toronto, School of Cities, Multidisciplinary Urban Capstone Design Course (MUCP) 'Revitalising Underutilized Open Spaces, City of Toronto Parks Master Plan', Project Sponsor, 2020-2021

Awards

Halifax Urban Design Awards, Award of Merit, 2018

Women in Construction, Architect of the Year, Finalist (UK), 2014

Green Apple Gold Award for Sustainability, 2012

Abercrombie Award for Best Minor Development, 2011

The Association for Project Manager's (APM) Community Project of the Year, 2010

Creating Excellence Community Partnership Southwest Award, 2010

- Island Lake Conservation Area Concept Masterplan, Orangeville, ON (2021): Project Manager and design lead for the master plan and business case to guide the long-term conservation, management and facilities improvements. ILCA comprises over 300 hectares of wetland, upland forest, plantations and meadows, extensive trails, cycling routes and mountain biking, recreational, educational, and events facilities, and Indigenous spaces. Client: Credit Valley Conservation Authority.
- Central Kingston Growth Strategy, City of Kingston, ON, Canada (2020): Urban Design Advisor and Reviewer: Study to identify areas and suitable forms of higher density infill in stable neighbourhoods, with contextually appropriate design guidelines and policy update recommendations.
- Gladstone Station District Urban Design Master Plan, Ottawa, ON (2019): Project Manager, Lead Urban Designer and engagement facilitator for the transformative TOD master plan, public realm strategy and design guidelines as part of the Secondary Plan to guide the revitalisation, re-development, and new development opportunities of key TOD sites around the new regional light rail station The concept promotes active transportation with new business opportunities, complete streets and multi-use paths. The project involved working closely with the City of Ottawa's Planning and Corporate Real Estate Office (CREO), Ottawa Community Housing (OCH), key stakeholders, and facilitation of community engagement workshops. *
- Vaughan Healthcare Precinct, Vaughan, Ontario (2019): Green infrastructure strategy, design and implementation for a new 35-hectare urban healthcare precinct. The city's pilot project for urban ecological planting strategies based on community based ecological succession and stormwater systems coordinated with regional agencies including the TRCA. *
- Greater Toronto Airport Authority (GTAA), Toronto, ON (2019): Landscape, Urban Designer and Master Planning Lead for an integrated passenger terminal and regional transit center in an extensive parkland setting. The concept promotes active transportation and public transit use with extensive trails, including expansive land bridges with accessible green space over multi-modal transit system, blending into a semi-enclosed landscaped arrival plaza and covered urban forest. Client: GTAA. *
- Imagine Idylwyld, Saskatoon, Saskatchewan (2018): Planning and transportation initiative to develop a new vision, land use and development guidelines, and conceptual plan to improve the function, safety, connectivity and quality of the roadway and public realm of Idylwyld Drive as gateway to Saskatoon City Centre. The concept addresses land use planning, built form, and development heights for a human scaled, walkable complete street. *
- Imperial Market, Sugar Land, Texas, USA (2017): Master planning through detailed design for the mixed-use, walkable redevelopment of the historic Imperial Sugar refinery located in Sugar Land, Texas. The district will have an active public realm based around complete streets with wide sidewalks incorporating spill out spaces, protected dedicated off-road cycle routes and convenient parking facilities, with strategic on-street parallel parking that enlivens the street life and capitalizes on the existing historic structures to provide a high-quality experience. *
- Arts + Design District, Sheridan College, Oakville, Ontario (2016): Concept Master Plan, Urban Design Guidelines, and facilitation of a visioning workshop for a new Arts + Design District. Sustainable design best practices were leveraged to create a flexible urban environment that physically and culturally connects the institution's existing 'creative campus' with the wider community and open space corridors. *



COLIN FOGARTY, P.Eng.

Project Engineer, Infrastructure

Areas of practice

Site Development

Municipal Infrastructure

Transportation Engineering

*Contract Administration &
Inspections*

*Tender Documents &
Specifications*

Languages

English

French

PROFILE

Colin is a Civil Engineer and graduate of Dalhousie University with over 10 years of civil and municipal engineering experience. Colin has participated in a wide variety of civil and transportation design projects and studies which encompassed new developments, repair and/or upgrading of existing infrastructure. Colin came to WSP with previous experience in site development and municipal services design. His responsibilities have included Civil Engineering design, Project Management and support, planning, multidisciplinary coordination, asset management and construction supervision. Colin recently lead the civil and site work design of a Halifax Regional Fire & Emergency Headquarters in Bedford, NS. Prior to that, he has been involved in several civil engineering design and construction mandates throughout Canada. In addition, Colin has been civil engineering lead for the tender & construction phase of several municipal and federal engineering projects, including the preparation of construction ready documents.

Education

Bachelor of Civil Engineering, Dalhousie University, Halifax, NS	2010
Diploma in Engineering, Dalhousie University, Halifax, NS	2008

PROFESSIONAL DEVELOPMENT

Pipeline, Manhole and Lateral Assessment Certification Programs (PACP, MACP, LACP), National Association of Sewer Service Companies (NASSCO)	2016
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PROFESSIONAL ASSOCIATIONS

Member, Association of Professional Engineers Nova Scotia, since 2011	APENS
Member, Association of Professional Engineers and Geoscientists Alberta, since 2018	APEGA

CAREER

Project Engineer, Infrastructure, WSP	2020 – Present
Civil Engineer, Infrastructure Engineering, SNC-Lavalin Inc., Halifax, NS	2011 – 2020
Geotechnical Technician, Maritime Testing Ltd., Dartmouth, NS	2009 – 2010

PROFESSIONAL EXPERIENCE

- Northside Health Centre, North Sydney, NS (2021-Ongoing): Civil engineering lead for the 60-bed long term care facility, community health centre and laundry facility, which will serve Cape Breton Island. Client: Architecture49 for NS Lands.
- Halifax Regional Fire & Emergency Headquarters / Fire Station 8, Halifax, NS (2020-Ongoing): Civil engineering lead for the redevelopment of an existing

industrial property to serve as the new HQ building and Fire Station 8 for Halifax Regional Fire & Emergency. Client: Architecture49 for HRM.

- Extended-Asset Condition Reporting System program 2021-2022, 4 First Nations Communities in NS & NL (2021-2022): Project Manager for the combined infrastructure and buildings inspection and assessment team in support of the Extended-Asset Condition Reporting System program for the Confederacy of Mainland Mi'kmaq (CMM). Colin was responsible for coordinating the inspection team leads, contact with the first nations communities, the CMM Project Manager and ISC, as well as coordinating the reporting and providing QA/QC review of the inspection documents. Client: The Confederacy of Mainland Mi'kmaq.
- Halifax Water Sanitary Service Separation – Three Locations, Halifax, NS (2020-2021): The project initially consisted of the assessment of existing combined sanitary and storm water services entering the combined sewer on Hollis St from three buildings located along Hollis St., as well as confirming service connections and inverts. A recommendations report was then prepared summarizing findings, as well as detailing recommendations for the separation of the storm and sanitary services, and the options for connecting the sanitary laterals to the dedicated sanitary system located with Hollis St. As the Project Manager on the project, Colin was responsible for planning and coordinating the on-site investigation, coordinating with the client, assessing the findings and preparing the final report. Client: Halifax Water.
- New Eastern District School, Sheet Harbour, NS (2018-2020): Design of a new P-12 school for Sheet Harbour, replacing both the existing elementary and high schools. Colin was the lead civil engineer during the construction phase of the project. As such, he was responsible for responding to client and contractor queries, shop drawing review, design revisions and troubleshooting, preparation of site instructions and change orders, supplier consultation, and construction site reviews. Client: Nova Scotia Department of Transportation and Infrastructure Renewal.
- Salvage Processing Facility, CFAD Bedford, Bedford, NS (2017-2020): Provision of a comprehensive set of engineering services to design a new ammunition salvage processing facility at the Canadian Forces Ammunition Depot in Bedford, NS. The services included: siting and design of the new salvage processing building, including the design of all utilities and services to support the operation of the processing facility, complete with on-site sanitary system and roadway upgrades. As the lead civil engineer, Colin was responsible for the civil design and site works for the new Salvage Facility. This included site layout and grading, water, sanitary and stormwater servicing and calculations, specification and design preparation, and client coordination. Client: Department of National Defence.
- APU/UPS Upgrade, CFB Winnipeg, Winnipeg, MB (2019-2020): Design of a new Auxiliary Power Unit (APU) and Uninterruptible Power Supply (UPS) for CFB Winnipeg. As the lead civil engineer, Colin was responsible for the design of the site development, grading and security provisions for the exterior APU/UPS generator placement, as well as the design of the trenching and reinstatement for the electrical conduit placement. Client: Department of National Defence.
- Patterson Armoury Underpinning, Medicine Hat, AB (2019): The Patterson Armoury building was experiencing excessive settling, and the exterior lawn was sloping towards the building. Therefore, DND requested a design solution to underpin the building and improve exterior drainage. As the lead civil engineer, Colin was responsible for the preparation of a stormwater management plan, revised site

grading, and design of new stormwater system to improve drainage around the building. Client: Department of National Defence.

- New Fuel Shed and Service Station, CFB Winnipeg, Winnipeg, MB (2019-2020): Design of a new fuel testing shed and filler shack for a refueling area at CFB Winnipeg. As the lead civil engineer, Colin was responsible for site design and locating of the new structures, grading, security, and design of water and sanitary services to the structures. Trenchless solutions were employed for bringing water service under a vital concrete roadway. Client: Department of National Defence.
- Building SH64 Fire Protection Upgrades, CFB Shearwater, Dartmouth, NS (2017-2018): Project to provide a design for the inclusion of a fire suppression system for the Arena (building SH64) at CFB Shearwater. As the lead civil engineer, Colin was responsible for the design of the update site services to and from building SH64. This included the design of the new water line to the building to provide fire suppression services, coordination of the new sanitary and drain lines with existing services, and regarding of a portion of the site to ensure proper cover was maintained. Tender and Construction phase services were also provided, included shop drawing and query review, and site visits to review progress. Client: Department of National Defence.
- Windmill Road Pump Station, Dartmouth, NS (2016-2020): Project to design a replacement for the Windmill Rd. sanitary pump station. This included the assessment of existing and future flows, preparation of a pre-design report, and detailed design services. As part of the design team, Colin was involved in calculating the future flows and sizing the pump station, sizing the pumps required, preparing the assessment report and preparing the design documents. Client: Halifax Water.
- West Roadway Improvement, CFB Calgary, Calgary, AB (2017-2018): Provide a design to widen the West Roadway at CFB Calgary. This included the design of a modified fence line, widening of the roadway, and parking lot redesign to allow for better sightlines and more efficient access. As lead civil engineer, Colin was responsible for coordinating the site survey, initial site visit, assessment and kick-off meeting with the client, and the preparation of the civil design documents. During tender and construction phases, he was responsible for the review of contractor shop drawings and response to client and contractor queries during construction. Client: Department of National Defence.
- Mattawa Plains Compound, Garrison Petawawa, Petawawa, ON (2018-2020): Concept, detailed design and construction phase services of a full secure compound containing 7 large buildings and 3 smaller buildings to support the operation of a military unit. Colin was a civil engineer involved with the construction phase of this project. As such, Colin was responsible for the review of contractor shop drawings, responses to contractor and client queries, site visits and review of construction progress, preparation of design changes, change orders and site instructions, and coordination and communication with the client throughout. Client: Department of National Defence.



GREGORY R. O'BRIEN, P.Eng.

*Atlantic Practice Manager,
Traffic Engineering & Transportation Planning*

Areas of practice

*Traffic Engineering &
Transportation Planning*

*Traffic Control Review & Traffic
Signal Design*

*Route Location & Functional
Planning*

*Safety & Transportation Planning
Studies*

Parking Studies

Traffic Impact Analyses

Intersection Layout & Design

*Pavement Marking & Signage
Plans*

Roundabout Layout & Analysis

Cost Benefit Analysis

PROFILE

A Traffic and Transportation Engineering specialist with more than 22 years experience, Greg O'Brien has been involved in many projects and studies including conceptual and detailed design projects, site access review and design, active transportation (AT) studies, economic cost benefit, route location, traffic impact, and urban transportation.

Greg has been involved with the functional layout and design for numerous roadways and bicycle facilities throughout Atlantic Canada and has extensive experience in managing and evaluating roadway and AT improvement options. He provides insight into lane use, access management, traffic calming, and signage to help ensure a safer and connected transportation network.

EDUCATION

Bachelor of Engineering, Civil, Technical University of Nova Scotia, Halifax, NS 1999

Diploma, Engineering, Saint Mary's University, Halifax, NS 1996

PROFESSIONAL DEVELOPMENT

Building a Road Safety Action Plan, TAC 2015

Project Management Bootcamp, PSMJ Resources Inc. 2014

Access Management, Location & Design, National Highway Institute 2003

Road Safety Audit Seminar, Transportation Association of Canada 2003

Professional Traffic Operations Engineer Refresher Course, Institute of Transportation Engineers 2002

Advanced Synchro and SimTraffic, Trafficware 2001

Intersection Design and Channelization Workshop, Northwestern University Traffic Institute 2000

Road Safety Audit Workshop, Delphi Continuing Engineering Education 1999

PROFESSIONAL ASSOCIATIONS

Member, Engineers Nova Scotia APENS

Member, Association of Professional Engineers & Geoscientists of New Brunswick APEGNB

Member, Engineers PEI APEPEI

Member, Professional Engineers and Geoscientists of Newfoundland and Labrador PEGNL

Member, Canadian Institute of Transportation Engineers CITE

Member, Transportation Association of Canada TAC

Member, TAC Traffic Operations and Management Committee TOMSC



GREGORY R. O'BRIEN, P.Eng.

*Atlantic Practice Manager,
Traffic Engineering & Transportation Planning*

CAREER

Atlantic Practice Manager, Traffic Engineering and Transportation Planning, WSP	2015 – Present
Manager, Traffic and Transportation, WSP/GENIVAR/Terrain	2010 – 2015
Traffic Engineer / Project Manager, Atlantic Road and Traffic Management Inc.	1997 – 2010

PROFESSIONAL EXPERIENCE

Traffic Engineering/Transportation Planning

- Windsor Street Exchange Redevelopment, Halifax, NS (2021-ongoing): Project Manager for the reconfiguration of the Windsor Street exchange to become a safer and more effective component of the region's multi-modal network while aligning with municipal policies related to transit, active transportation, land use, the environment and geometric roadway design. Tasks include traffic analysis and modelling of multiple reconfiguration options and development of a functional plan, and then preliminary design of a preferred option. Client: Halifax Regional Municipality
- Spring Garden Road Streetscape Detailed Design (2020-ongoing): Project Manager for the preparation of detailed design drawings and construction review for the Spring Garden Road Streetscape. The project includes functional plan review and detailed design, coordination with utilities, constructability review, and construction phasing plans and construction support. Client: Halifax Regional Municipality
- Displaced Left Intersection Design, Charlottetown, PE (2019-2020): Project Manager for the reconfiguration of Riverside Drive at Route 2 / St. Peters Road, an at-grade, skewed, signalized intersection with multiple lane approaches that regularly experienced heavy vehicle congestion. Completed detailed traffic modelling the preliminary and detailed design of the displaced left intersection, review of AT connections in the project area, preliminary and detailed geometric design, detailed grading design to provide positive drainage within flat existing conditions, and vehicle simulations/conflict checks. Tasks included traffic analysis, functional planning, detailed design, electrical design, utility design/coordination. Client: PEI – Department TIE
- Reeves Street Redevelopment, Port Hawkesbury, NS (2018-2020): Project Manager for the reconfiguration of the Reeves Street corridor to improve operation and safety. Included a road diet and reallocation of space for improvements to AT and access improvements involving reconfigured intersections with exclusive turn lanes. Initial project tasks included an operational and safety review. While Nova Scotia Public Works completed design and construction for the road diet and access management component, WSP completed design and provided construction support for implementation of a multi-use trail connecting the Nova Scotia Community College to Town for a total length of over 1.5 km. The project involved public and stakeholder consultation, concept and functional design, detailed design, landscape architecture and construction support. Client: Town of Port Hawkesbury, NS
- Gunningsville Intersection Redesign, Riverview, NB (2017-2018): Project Manager for the functional review of options and design lead for detailed design of the intersection of Gunningsville Boulevard and Coverdale Road/Hillsborough Road. This is a key intersection in the Town of Riverview providing a primary connection between the Town and Moncton. Tasks included traffic analysis and modelling, stakeholder and public consultation, survey, detailed design, construction support and inspection. Client: Town of Riverview, NB

- Forest Hills Parkway Active Transportation Functional Planning and Design, Cole Harbour, NS (2017): Senior Advisor for a project that included the identification and assessment of options to provide off-street cycling facilities along approximately 2.6 km of Forest Hills Parkway in Cole Harbour, NS. Client: Halifax Regional Municipality
- Functional Planning Study, Downtown Kentville Active Transportation Connector, Kentville, NS (2017): Senior Advisor for a project that included the identification and assessment of options to provide active transportation connections of a disjointed Rails to Trails network within downtown Kentville, NS. Client: Town of Kentville
- Cogswell Interchange Redevelopment, Halifax, NS (2016-ongoing): Deputy Project Manager and Senior Engineer for the preparation of detailed design drawings and construction review for the demolition of the Cogswell Interchange and reconstruction as surface streets. The project includes the addition of bicycle lanes and trails through the study area, coordination with utilities, a constructability review, construction phasing plans, and construction field inspection. Client: Halifax Regional Municipality
- Chain of Lakes Trail Connection Study, Halifax, NS (2016): Senior Advisor for a project that included the identification and assessment of candidate routes for a proposed 1.2 km trail connection running parallel to Bayers Road in Halifax. Client: Halifax Regional Municipality
- Reeves Street Safety Study, Port Hawkesbury, NS (2015): Project Manager for a study that reviewed safety and operational concerns along Reeves Street, an arterial roadway through the Town of Port Hawkesbury, NS that serves as a key route both locally and regionally. The study included long-term traffic demand projections, land use review, collision data analysis, traffic operational review, stakeholder consultation. Study deliverables included a phased 25-year plan for roadway upgrades (including functional layouts and cost estimates). Client: NSTIR
- North Park Street Realignment and Roundabouts Design, Halifax, NS (2013-2015): Project Manager and Design Lead. Project included realignment and reconstruction of 350 m of urban street in a built-up area of Halifax, including the integration of bicycle lanes and off-street trail connections through the construction area. Construction phasing and constructability were important considerations to ensure that construction activities could continue in an efficient manner to reduce overall impact of construction activities to road users. Client: Halifax Regional Municipality.
- Preliminary Design of Windsor Street, Chebucto Road, Cunard Street Intersection, Halifax, NS (2015-2016): Project Manager for a project that included the development of intersection reconfiguration options for a key intersection notorious for its non-standard, confusing layout. The project included detailed investigation of existing conditions, stakeholder consultation, road safety analysis, development of preliminary designs / cost estimates for intersection reconfiguration options, and a summary report detailing the design development and options evaluation process. Client: Halifax Regional Municipality.
- Traffic Impact Studies, completed for various school sites in Atlantic Canada (2005-ongoing)
 - Moncton High School, Moncton, NB
 - Citadel High School, Halifax, NS
 - Westend High School, St. Johns, NL
 - Liverpool Junior High School, Liverpool, NS
 - West Highlands Elementary, Amherst, NS

- Traffic Signal Design, completed in various locations across Atlantic Canada (2006-ongoing)
 - Northwest Arm Drive / Washmill Lake Drive, Halifax, NS
 - Wright Avenue / Highway 118 (northbound ramps), Halifax, NS
 - Fairville Boulevard / Catherwood Street, Saint John, NB
 - Trunk 10 / Highway 103 (Exit 12 Interchange Ramps), Lunenburg County, NS
 - George Street / Prince Street, Sydney, NS
 - Malpeque Road / Saint Dunstan Street, Charlottetown, PE
- Highway 103 Operational and Safety Review, Tantallon to Yarmouth, NS (2015): Project Manager and Technical Lead. This multi-disciplinary project included a review of the existing alignment of the highway with consideration of maintenance standards and review of geometry to compare to current design standards and developed a phasing plan for upgrading the highway over the next 20 years. This is considered relevant to potential projects due to the multi-disciplinary approach to the project as well as review of alignment to consider modifications needed to meet current design standards. Client: NSTIR
- MacQuarrie Bridge Replacement, Fall River Road, Fall River, NS (2015): Lead transportation engineer on the project responsible for review of lane widths and consideration of active transportation modes. The project included road widening to accommodate additional length to turning lanes at an existing signalized intersection adjacent to the structure as well as vertical realignment to increase the elevation of the bridge crossing. Client: HRM
- Ingrand Overpass Design, Highway 103, Halifax Co., NS (2014): Project manager for design of the overpass structure for an interchange to Highway 103. Client: NSTIR
- Alders Bridge Replacement, South Deerfield, NS (2013): Transportation Engineer on the project to review and discuss potential impacts of modifications to road alignment. Project involved the design of a new single-span prestressed concrete girder structure to replace an existing timber structure that was destroyed in 2009 due to flooding. Client: NSTIR
- Coverdale Road Traffic Operational Review, Riverview, NB (2013): Project Manager for a study which included collection of a considerable amount of information, including coordination of traffic data at more than 12 study area intersections. Detailed collision analysis was completed for all major study area intersections. A review of traffic control signs and pavement markings was completed throughout the study area. Conceptual and preliminary design options were provided for recommended options. Client: Town of Riverview
- Ingrand Interchange and Connector Road Location Study, Highway 103, Halifax Co., NS (2012): Project Manager and Traffic Engineer on a project that involved review of the location for a new highway interchange and connector road route location. The project is relevant to the current assignment as it involved review of traffic volumes and determination of appropriate number of travel lanes, as well as determination of the optimized interchange overpass and connector road alignment. Client: NSTIR
- Dieppe Traffic Signal Optimization Study, Dieppe, NB (2012): Project Manager for a detailed review of traffic signal operation at all 13 signalized intersections in the city. The study included inventory of the existing traffic signal equipment, coordination of traffic data collection efforts, evaluation of existing and projected future traffic conditions, and development of recommendations for both current and future needs

including signal timing revisions and the addition of lane capacity. Client: City of Dieppe

- Highway 103 / St. Margaret's Bay Connector Road, Halifax Regional Municipality (2011): Project Manager and Traffic Engineer for a study investigating access options for Highway 103 near Boutilier's Point, NS. The study included two components including (i) development and review of potential interchange and connector locations and (ii) benefit-cost analysis for the options considered (completed as a follow-up study in May 2011). The study was completed to evaluate several possible interchange and connector locations on Highway 103 west of Tantallon to provide improved access for communities along Trunk 3, as well as provide the needed land access connections for properties north of Highway 103. Client: NSTIR
- Main Street Area Transportation Study, Dartmouth, NS (2011): Project Manager. The study included the review of existing streets and determining the impacts of additional traffic on the street network generated from redevelopment of lands within the study area. A review of on street and off-street parking, and analysis and conceptual layout of reconfigured intersections was provided. Client: HRM
- Traffic Study Highway 107, Phase 1, Burnside to Sackville, NS (2011): Traffic Engineer responsible for managing data collection, intersection performance analysis, traffic volume projections and diversions. The project involved projecting traffic volumes for a new route to provide relief to an existing congested route and determine impacts of new road on local feeder routes at each end. Client: NSTIR

Active Transportation Planning and Design

- Bayers Road Transit Corridor, Halifax, NS (2018-Ongoing): Project Manager and design lead for the functional review and detailed design of options for both transit priority and AT. The project includes road widening to accommodate transit priority lanes and design and coordination of a multi-use trail. Projects tasks included collecting survey data, developing concept plans, and stakeholder and public engagement sessions. Tasks included detailed design of street/intersection geometry, urban streetscape design, municipal infrastructure, street lighting. Client: Halifax Regional Municipality
- Downtown Bicycle Facility Review, Fredericton, NB (2017): Quality Manager for a study that identified and assessed options to provide cycling facilities on Queen Street, Brunswick Street, and King Street in downtown Fredericton. Tasks included the processing of traffic volume data, collection and processing of parking utilization and turnover data, traffic analysis, preparation of concept plans, and reporting. Client: City of Fredericton
- South Park Street Bicycle Lane Conceptual Design, Halifax, NS (2017): Quality Manager for a project that included the identification and assessment of options to provide buffered cycling facilities on South Park Street in Downtown Halifax. Project included processing of traffic count data, collection and processing of parking utilization and turnover data, traffic analysis, preparation of concept plans, and reporting. Client: Halifax Regional Municipality
- Forest Hills Parkway Active Transportation Functional Planning and Design, Cole Harbour, NS (2017): Quality Manager for a project that included the identification and assessment of options to provide off-street cycling facilities along approximately 2.6 km of Forest Hills Parkway in Cole Harbour, NS. Client: Halifax Regional Municipality
- Functional Planning Study – Downtown Kentville Active Transportation Connector, Kentville, NS (2017): Quality Manager for a project that included the identification



GREGORY R. O'BRIEN, P.Eng.

*Atlantic Practice Manager,
Traffic Engineering & Transportation Planning*

and assessment of options to provide active transportation connections of a disjointed Rails to Trails network within downtown Kentville, NS. Client: Town of Kentville

- Gottingen Street and Brunswick Street Bicycle Facility Conceptual Design, Halifax, NS (2016): Quality Manager for a project that included the identification and assessment of options to provide cycling facilities along 800 m of Brunswick Street between Rainnie Drive and Spring Garden Road in Downtown Halifax. Client: Halifax Regional Municipality

PUBLICATIONS AND PRESENTATIONS

Presentations

- O'Brien, Greg. "Reeves Street Safety Study." Presentation to the Fall 2015 meeting of the Institute of Transportation Engineers (ITE), Atlantic Provinces Section. Fredericton, NB. November 19, 2015



June 30, 2022

UPPER KING STREET EXTENSION DEVELOPMENT RFP

TOL2022016

Proposal presented by MacKay-Lyons Sweetapple Architects

Lunenburg, Nova Scotia



June 30, 2022
Business Coordinator
Town of Lunenburg
119 Cumberland Street
Lunenburg, NS B0J 2C0

Re: Upper King Street Extension Development RFP #TOL2022016

Dear Business Coordinator,

We are pleased to submit this proposal for the development of a new neighbourhood in Lunenburg. The Town's future as both a UNESCO world heritage town and as a sustainable, affordable community for its residents depends on harmony between its rich history and contemporary goals. Our deep knowledge of the community, building traditions, and climatically appropriate architecture uniquely positions our firm to compete for the opportunity.

MacKay-Lyons Sweetapple Architects ("MLSA") has deep roots on the south shore, where my own Mi'kmaw and Acadian ancestors have lived for millenia. I work in Lunenburg at our B2 Lofts Office and have lived in Upper Kingsburg for nearly 40 years. I have also used Lunenburg as a vehicle for architectural education for 30 years. The Upper King Street Development offers an opportunity to contribute to the growth of the community that I love.

We have assembled a team with local expertise to respond to the challenges and opportunities of this proposed development. Hanscomb brings over 60 years' experience in cost estimating. We are partnering with DesignPoint for civil engineering and site servicing. In addition, Julian Smith, Canada's preeminent Heritage Consultant, brings a long history of working with UNESCO globally regarding cultural landscapes. His experience as an architect and planner for national historic sites and our 10-year working relationship at Ottawa's National Capital Commission brings a unique perspective to MLSA's team.

As urban designers and architects, it is MLSA's job to facilitate the design process. We have developed a design methodology that involves an interactive participatory process which draws out the special knowledge of our clients' goals. We propose working collaboratively with Lunenburg's development, heritage, and engineering departments. We also intend to conduct design workshops with the public to evaluate design concepts.

The Upper King Street Extension Development should build on Lunenburg's sense of place in creating high-amenity, affordable housing and a new public space that integrates with existing public spaces in the historic town.

Our team is excited by the potential of this initiative, and we look forward to working with you on the Upper King Street Extension Development.

Sincerely,

A handwritten signature in black ink, reading "Brian MacKay-Lyons". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Brian MacKay-Lyons

Architect, Professor, M. Arch, FRAIC, RCA, Hon.Int. FAIA, Int. FRIBA
NSAA, AAPEI, AANB, OAA, AIBC, NH, VA, UT, ME

Proposal Contact:
Brian MacKay-Lyons
902-429-1867 ext. 221
brian@mlsarchitects.ca



(top) Lunenburg waterfront

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"The architecture of Brian MacKay-Lyons shows clarity in planning, resulting in forms that are direct, simple, and elegant. The buildings are beautifully sited and crafted. This is an honest, no-nonsense architecture that avoids the fashions of the day. It exhibits that rare quality-authenticity."

Architect Glenn Murcutt, 2002 Pritzker Laureate



(top) MLSA team at Queen's Marquee during construction

A. OUR TEAM

A.1. MACKAY-LYONS SWEETAPPLE ARCHITECTS

MackKay-Lyons Sweetapple Architects (MLSA) is based in Halifax and Lunenburg in Nova Scotia and has several locations across the United States. The practice works locally and internationally on cultural, academic, municipal, and residential projects. In over 35 years of practice, MLSA has built an international reputation for design excellence confirmed by over 150 awards. MLSA is known for projects that provide a narrative of the place they come from. This emphasis on the “storytelling” of a project is important to us as we look to the site and surroundings for cues on how to effectively tell the story. An example of this in our work would be B2 Lofts in Lunenburg, Nova Scotia, which received heritage design awards at the municipal, provincial, and national levels.

For this project, ***Brian MackKay-Lyons*** will lead design efforts regarding the scale of the site and overall building. Brian’s strength will be most utilized in form making and site strategizing. Brian received his Master of Architecture and Urban Design from UCLA and has over 37 years of experience in master planning and urban design. Brian has a deep connection to the area. He was born and raised on Nova Scotia’s south shore of Acadian and Mi’kmaq ancestors.

Miranda Bailey will be the project architect. Miranda has been with MLSA for 7 years and has experience as project architect on both private and public projects. As project architect, Miranda will be coordinating overall design team efforts, ensuring deadlines are met, reports are completed, and all tasks are on target. She will be responsible for coordination amongst all sub-consultants, making sure they are kept informed throughout the design process. Miranda and Brian will maintain these roles from day one’s kick-off meeting. These are roles they have experience working in together, most notably, on the Concept Design and Master Plan project for the Tartan Downs Development project in Cape Breton, Nova Scotia.

Diana Carl has over 20 years’ experience detailing both public and private projects. As a senior architect with MLSA, her role on this project will be to review all drawings, ensuring details are well coordinated and clearly communicated. Diana is currently working closely with Brian on the King’s Arms Hotel project in Lunenburg.

A.2. SUB CONSULTANTS

COST ESTIMATING

Hanscomb Cost Estimators is one of Canada's oldest and largest independent Project Control practices. The experience they have gained in their sixty-year history is unmatched. With eight offices across Canada, they work on hundreds of projects each year.

Raymond Murray, a highly skilled cost consultant and leader, has expertise in the areas of cost planning, trade breakdowns, building cost comparison studies, mortgage monitoring, bills of quantities, scheduling, cash flows, budget status reports, capital replacement costs, change order monitoring, and value management workshops. His work experience includes a diverse range of projects in both Canada and the United States, including small renovations, educational facilities, hospitals, amusement parks, museums, DND projects, residential and apartments, theatres, commercial and retail, and casinos.

Raymond and MLSA have worked together on past projects together, including several universities, the Yarmouth Arts and Culture Centre, and most recently Tartan Downs - a community concept design and masterplanning project in Cape Breton, Nova Scotia.

CIVIL ENGINEERING

DesignPoint is an engineering and surveying firm established in 2014 and is located in Bedford, Nova Scotia, with over 60 staff and specializes in municipal infrastructure and development projects, structural engineering, geotechnical engineering, transportation engineering, and topographical, legal, and specialized surveys. DesignPoint's expertise and quality of work, together with the value they place on fostering positive relationships with their clients, combines to create successful projects completed to the satisfaction of their clients. The DesignPoint team has a proven track record of working collaboratively and creating innovative solutions to improve the quality and cost of a final solution.

Andrew Forsythe will serve as the Senior Civil Engineer for this project. Andrew has 24 years of experience in municipal engineering and has been involved in the design of numerous infrastructure projects throughout the Atlantic Provinces and across Canada. His area of expertise includes municipal design, storm drainage design, commercial/institutional site design, and serviced/un-serviced subdivision design. Andrew will be the project engineer for the servicing design and cost estimate preparation for the civil component of the project.

Jordan Keeping has been building experience in civil and municipal design and construction since

graduating from Nova Scotia Community College in May 2015 and has experience with construction inspection and testing pressure pipes. Jordan will be responsible for the preparation of the conceptual servicing schematics and compilation of the background information. He will also support Neil with the preparation of the cost estimates.

DesignPoint and MLSA worked together on the West Hants Sportsplex - a municipal project that was important to the town of Windsor, Nova Scotia, and the Margaree Research Shed in Cape Breton, NS.

HERITAGE CONSULTANT (SPECIALTY)

If the Town of Lunenburg wishes to hire a Heritage Consultant for this project, **Julian Smith** is pleased to join the team in this role. Julian and MLSA have worked together off and on for some 25 years. With his past involvement as Chief Architect for the National Historic Sites program at Parks Canada and as President of ICOMOS Canada, he is intimately familiar with heritage policies, principles and practices. He has worked extensively with UNESCO, most notably as co-author of the 2011 UNESCO Recommendation on the Historic Urban Landscape. This Recommendation was adopted by UNESCO to broaden the focus of World Heritage listing to include a more sustainable and ecological approach to historic urban centres.

Julian was later commissioned by UNESCO to be the lead author for its North American Report on Culture, Heritage and Sustainability, part of the lead-up to the UN Habitat III conference in Quito in 2016. A few months ago, Julian was one of the keynote speakers at a conference in Morocco involving UNESCO and ICOMOS, in which he used a cultural landscape framework to address the question of citizen participation in heritage district planning and development. Among Julian's writings of note are 'Marrying the Old with the New', in the 2016 UNESCO publication on Valuing World Heritage Cities, and 'Civic Engagement Tools for Urban Conservation', in Reconnecting the City: The Historic Urban Landscape Approach, edited by Francesco Bandarin, head of UNESCO's culture division.

Julian will work with the team in identifying the relevant principles of Lunenburg's World Heritage listing and National Historic Site designation, and the implication of these principles for the development of appropriate urban design proposals.

A.3. TOWN STAFF

Our team will consult with **Arthur MacDonald**, for Heritage Development, and **Trevor Hume**, for Planning and Development, from the Town of Lunenburg. Additionally we will seek resource support from the Town Engineer.



UPPER KING STREET EXTENSION DEVELOPMENT

B. RELEVANT PROJECT EXPERIENCE

B.1 B2 LOFTS



(top) Montague St new & existing

(top right) Greatroom in new
on opposite page

(top) Bluenose Drive new & existing

(bottom right) Apartment entry

(bottom left) UNESCO Lunenburg's warehouse district

For some 25 years, Brian has used the town of Lunenburg, Nova Scotia, as a platform for teaching architecture and urbanism. His message to the next generation of practitioners is that good architecture starts with urban design. So, with B2 Lofts, a mixed use, urban infill development, in the heart of Lunenburg, he was able to practice what he preached.

Located on lands previously inhabited by Mi'kmaq and Acadians, the Architect's ancestry, and on the edge of the Atlantic Ocean, B2 respects Lunenburg's status as a former centre for port activities and as one of only two UNESCO World Heritage towns in North America. Its brightly-coloured, well-preserved, handcrafted timber buildings, relate to 18th- and 19th-century fishing, shipping and shipbuilding traditions. Therefore, Lunenburg makes a good place to study the relationship between tradition and modernity; to prove that one can build modern architecture in a highly constrained, historic, urban context.

B2 Lofts consists of a renovated historical building and an adjacent new building on a narrow lot. It includes two street level commercial spaces, with six loft-style apartments above. At first glance, one might be forgiven for not distinguishing between the new and the old structures – not because the modern one attempts to emulate or nostalgically quote historical elements or styles, but rather because it learns from them. B2 Lofts demonstrates Brian's study of traditional architectural language and construction techniques, admiration for their proven resilience, intelligence and spare economy and translation of these elements into a modern expression. The project adds to the street without calling attention to itself. Its design adds one more, cross-grain, gambrel-roofed warehouse to a streetscape containing several more historic gambrels. Inside and out, its wood walls, roof, and custom-crafted, traditional wood windows echo the material culture of Lunenburg. Its through-block plan addresses the traditional shopfronts on Montague Street and the pragmatic, waterfront-industrial architectural language of Bluenose Drive. Its dynamic, pin-wheeling asymmetrical, facade compositions, consisting of pop-scaled fenestration and barn doors, give the buildings a plain modern effect. Inside, delicate, spiderweb-like roof trusses in the loft apartments refer to the metal trades attendant to the shipbuilding tradition.

The project received heritage design awards at the municipal, provincial, and national levels. In addition, the project won the Atlantic Design Award for Architecture and the Lieutenant Governor's Award for Architecture.



UPPER KING STREET EXTENSION DEVELOPMENT

B.2 TARTAN DOWNS DEVELOPMENT PHASE 1: CONCEPT DESIGN AND MASTER PLAN



(top) Site plan

(bottom) Diagrams of the different unit types
on opposite page

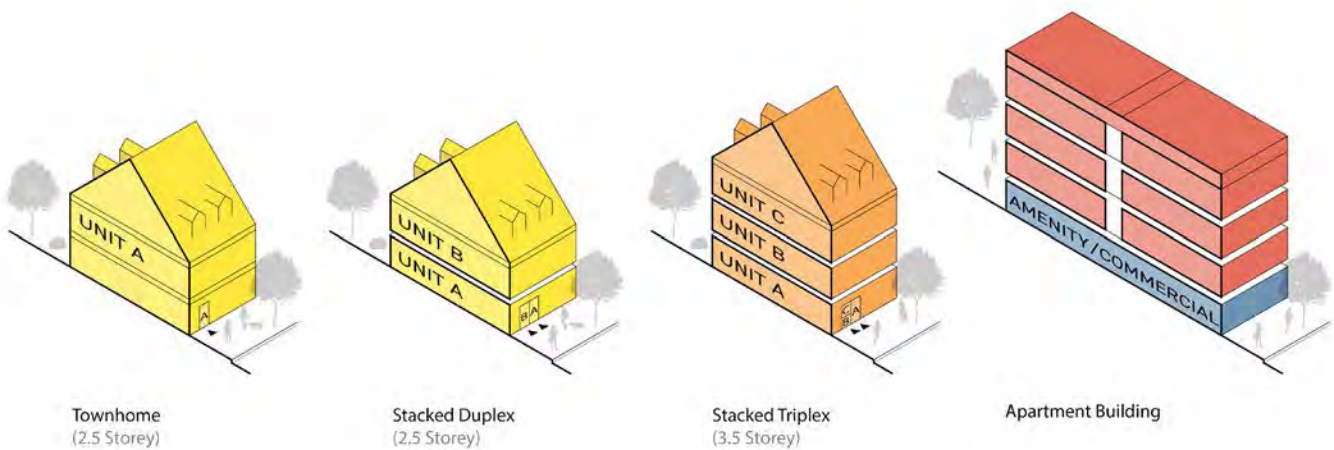
(top) Proposed mixed-used masterplan

(bottom) Rendering of the townhouses surrounding the
park present

The Tartan Downs Project is a residential and commercial development on a 24-acre site in an existing neighborhood in Sydney, Cape Breton. The mixed-use development will have 430 units, both market and affordable, from 1 to 3 bedrooms in the form of single-family homes, townhouses, and apartment buildings. The layout of the neighbourhood will celebrate the history of the site, keeping the form of the historic harness racing track.

The Tartan Downs Development will be a universal design for both the residents and the surrounding communities— without barriers and with accessibility as a priority. The design will be innovative, environmentally, socially and economically sustainable, and respect the existing surrounding context while providing a modern aesthetic.

Community engagement through the design process has been an essential part of the project's success thus far. It is important the design forms a sense of community in the completed neighbourhood development. This multi-year phased development will be a signature, modern urban neighbourhood in central Sydney.



REFERENCE

Kent MacIntyre
Email: kent_macintyre@cbu.ca
Phone: 902-574-5323
Project: Tartan Downs



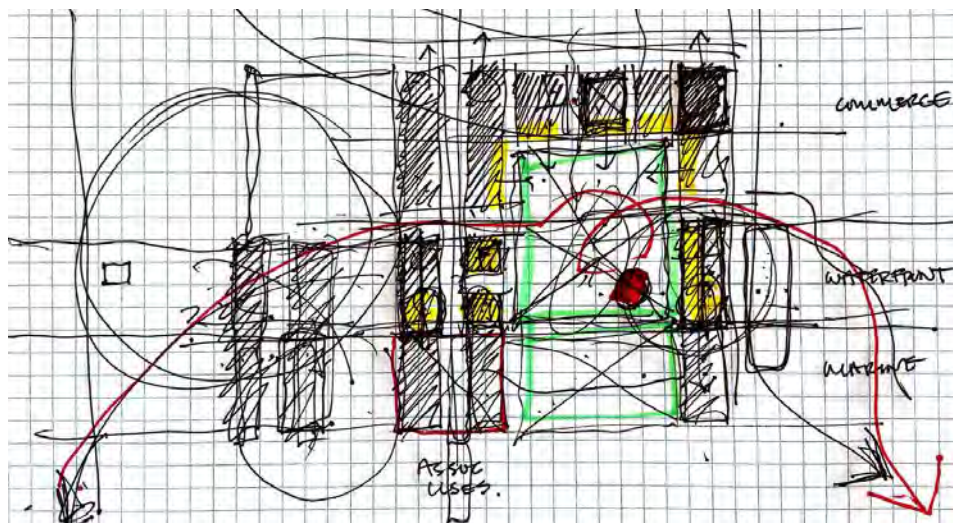
UPPER KING STREET EXTENSION DEVELOPMENT

B.3 LUNENBURG FOUNDRY URBAN DESIGN STUDY

For 20 years, MLSA has been engaged with the Lunenburg Foundry to envision a future infill development for this prominent site that is strategically located at a hinge point between Old Town and New Town Lunenburg. This study is currently being used to elicit interest from prominent developers in purchasing and redeveloping the property.

The 3 ½ storey proposal employs the architectural precedent of Lunenburg's historic waterfront marine-industrial wooden warehouses. It is 300,000 square feet of new, mixed-use development, extending Broad and Brook Streets to the harbour and cresting large public open space courtyards. We regard this site as Lunenburg's Queen's Marque, a recently completed 500,000 square feet mixed use infill development designed by MLSA on Halifax's waterfront.

Site plan sketch
on opposite page
(top) Commercial streetscape
(bottom) View from harbour





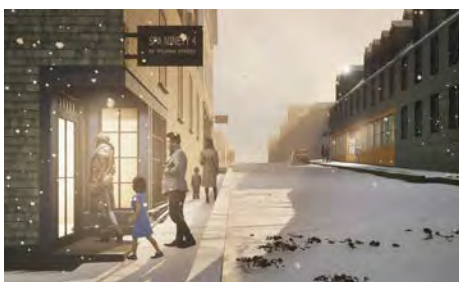
UPPER KING STREET EXTENSION DEVELOPMENT

B.4 KING'S ARMS HOTEL URBAN DESIGN



The proposed new King's Arms Hotel is intended to begin construction in Fall 2022 on a vacant lot (3 original town lots) in the heart of Lunenburg's UNESCO District on the site of the original historic King's hotel. It consists of 44 hotel rooms, a street front café, and hotel lobby.

We have been guided by UNESCO's Venice Charter, which argues that new buildings in UNESCO towns should be subservient to their historic neighbours, but also be of their own time.



This ambitious project is intended to reinforce Pelham Street as Lunenburg's Georgian streetscape, characterized by its 2 and ½ storey scale, Georgian dormers, street level 'shops,' shingled wall and roof cladding, and classic Lunenburg windows and storefronts. This is achieved in a way that is both traditional and contemporary.

(top) Streetscape

(bottom) Street level entry
on opposite page

(top) New King's Arms Hotel

(bottom) Original King's Hotel

REFERENCE

Gordie Kirkpatrick
Email: gkirkpatrick@dyneholdings.com
Phone: 902-316-1770



UPPER KING STREET EXTENSION DEVELOPMENT

B.5 80 PELHAM STREET URBAN DESIGN & ARCHITECTURE STUDY

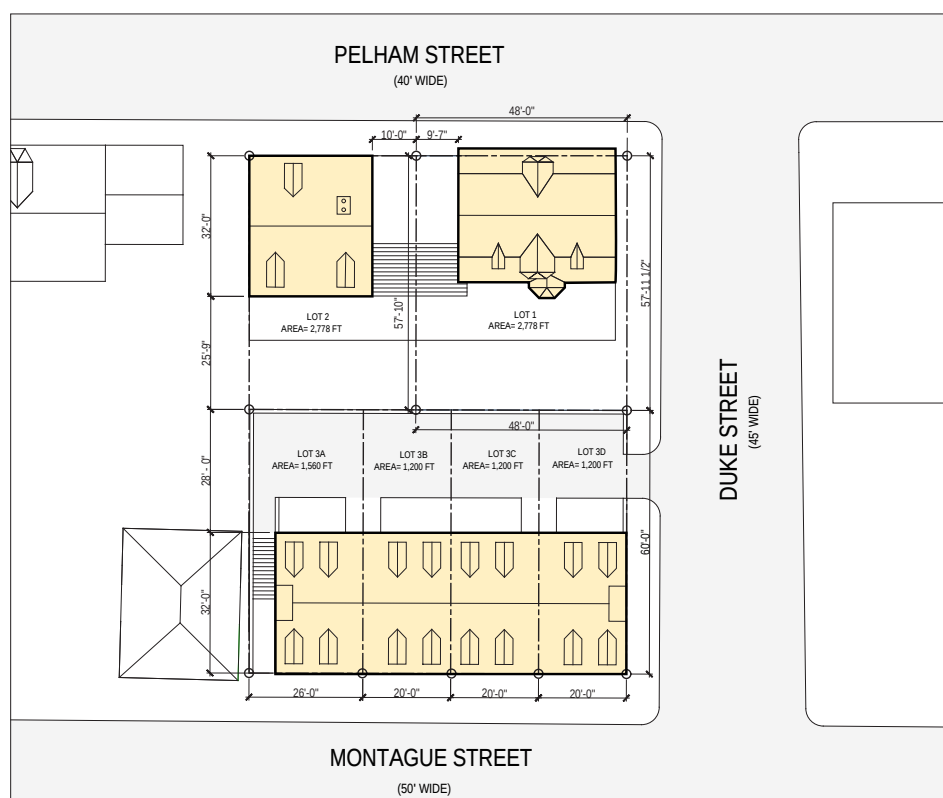
Located in the heart of Lunenburg's Old Town (UNESCO) World Heritage District, this current mixed-use, infill project involves MLSA as urban designer, architect, and developer on four original town lots.

The existing, historic Romkey House will be preserved; a new stacked infill townhouse will be added on Pelham Street; and 8 stacked townhouses will be added along Montague Street, mixing shops, affordable units below, and townhouses above.

The proposed development reinforces the architecture patterns of historic Lunenburg by stepping down the hillside, maintaining backyards (50% lot coverage), reinforcing Montague Street shops, and utilizing traditional Lunenburg materials (cedar shingles).

This project is conceived as a prototype for high-density, low-rise development in Lunenburg.

Street plan
on opposite page
(top) Render of 80 Pelham Street facade
(bottom) Harbour view





UPPER KING STREET EXTENSION DEVELOPMENT

B.6 SHOBAC CAMPUS



Architecture begins with the land. Over 25 years, Brian MacKay-Lyons cleared the forest back to farmland, on the site of earlier settlements of Mi'kmaq, Acadians, and foreign protestants. As 'the village architect' has designed and built many new buildings among the historic ruins, a village has evolved as a vessel for community events, an off-road architecture school, a research lab for the practice, and a new community of dwellings. The ultimate purpose of architecture is community. The resulting village is an expression of architectural ambitions. It is an agricultural/architectural cultivation.

- In 2011, Shobac received the American Institute of Architects National Honor Award for Architecture.
- In 2022, Shobac will receive the Governor General's Medal for Architecture at Rideau Hall.
- Shobac is also the subject of a novel by Larry Gaudet, called Skyroom.

(top) Tradition and modernity

(right) Willing a community
on opposite page

(top) Shobac Campus

(middle left) Community gathering

(bottom left) Ghost 6

(bottom right) Point House





UPPER KING STREET EXTENSION DEVELOPMENT

B.7 QUEEN'S MARQUE



(top) Render of Queen's Marque situated in Halifax's urban core

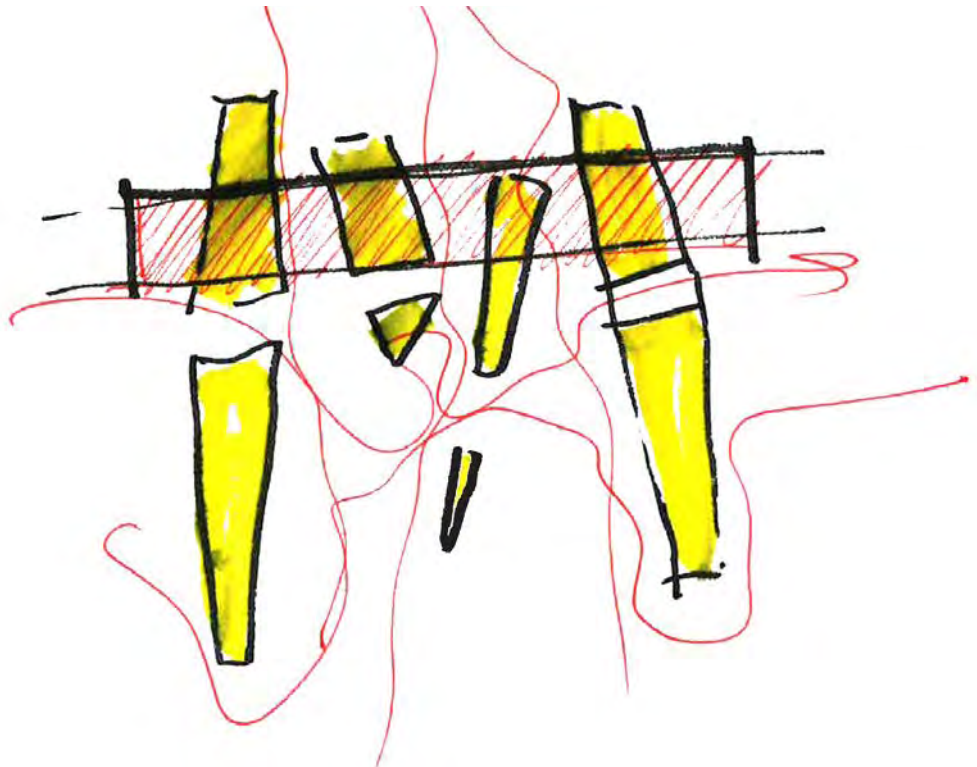
(bottom) Sketch of the site plan on opposite page

(top) Rendering of Queen's Marque bringing the public to the water's edge

(bottom) The form fits into the urban fabric and maximizes public space

Queen's Marque is a recently completed ambitious urban infill project at the heart of Halifax's waterfront that will have a transformative effect on the city, at the original landing place where Halifax began in 1749. It is a mixed-use district containing over 500,000 square feet of retail, restaurants, apartments, offices, a boutique hotel, and public parking. Over the past 10 years, MLSA has worked closely with the developer to lead all respects of the design, from urban design, obtaining development approvals, designing all buildings, to the selection and design of public art.

The most significant aspect of the project is the creation of public urban space, consisting of 3 public squares that form effective microclimates and link to the waterfront boardwalk. Despite the high density, 65% of the site is developed as highly accessible public open space. The project employs a palette of local and nautical materials. MLSA will relocate their Halifax offices to Queen's Marque in July 2022.



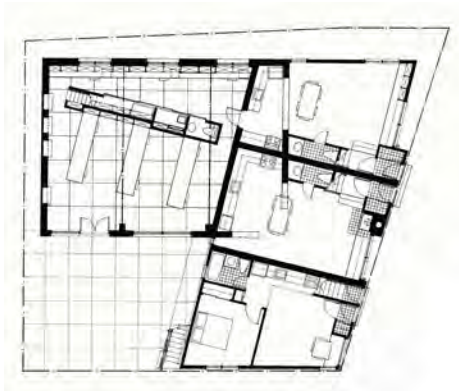
REFERENCES

Scott McCrea
 Email: smccrea@armourgroup.com
 Phone: 902-489-5093
 Project: Queen's Marque



UPPER KING STREET EXTENSION DEVELOPMENT

B.8 2042 MAYNARD STREET INFILL



Located at the corner of Maynard and Falkland Street, this high density, low rise, mixed use, infill project is a built argument for the revitalization of Halifax's 'old north suburb' neighbourhood. An example of MLSA's philosophy of 'frugal chic' architecture, it was built for \$65/square foot. It consists of four rowhouses and a commercial space (in a former gas station) on a 300 square feet lot.

Due to the project's emphasis on creating good urban fabric in a historic context, it received the Governor General's Medal, Canada's highest award for Architecture.

(above) Floor plan
on opposite page
Maynard Street Facade

B.9 2098 CREIGHTON ST. TOWNHOMES + OFFICES



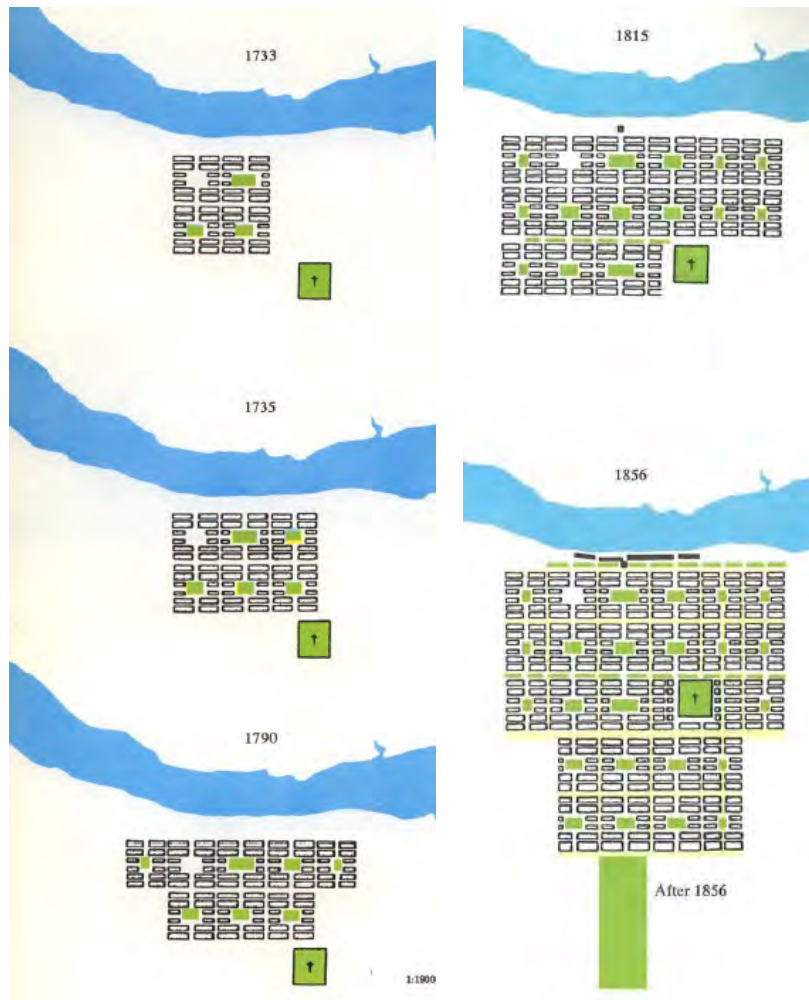
This high-density low-rise, mixed-use infill project in Halifax's north end is conceived as an agent of urban redevelopment and the repair of the urban fabric of a city block. It consists of 10 stacked townhouses on Creighton Street, and an office building opposite on Gottingen Street, creating a private courtyard between. The design received the Lieutenant Governor's Medal of Excellence for Architecture.



(top) Creighton St. Townhomes
(bottom) MLSA Gottingen St. Office
on opposite page

Private courtyard between Creighton St. and Gottingen St.

MLSA played the combined roles of Urban Designer, Architect, and Developer. Our firm is unique in this regard — making architecture that begins with urbanism, and that shows an appreciation of the challenges facing developers.



(top) Modular growth of an Anglo-colonial grid town: Savannah, Georgia
 (bottom) City block shapes: Edinburgh, Scotland

C. APPROACH & METHODOLOGY

C.1. UNDERSTANDING

We see the scope of this project as having a very clear set of goals; both aspirational and operational.

The Upper King Street Extension presents a rare opportunity to sympathetically extend a historic Anglo-American British colonial grid town. Based on the “DNA” of the existing Town plan, this project will connect the front and back harbours, while naturally extending the Town’s infrastructure (trails, streets, and services). This includes sustaining the vernacular architecture and creating units that retain historical forms and materials.

The Town’s ambition to create maximum residential density, which is both affordable and high-amenity, in addition to providing a high quality public open space is clear. Lunenburg’s new visionary Town plan (CCP, MPS, LUB, and Subdivision By-law) will facilitate good design.

The urban design should add new city blocks to the Town, in a way that is analogous to the modular expansions of other Anglo-colonial towns such as Savannah, Georgia.

The RFP request to develop four design options for the site will involve testing both stacked townhouse and apartment building typologies to form the new city blocks, which will contain both private yards and shape public places.

The site’s steep topography is both a challenge and an opportunity, offering views to the back harbour and first peninsula. Multiple ground levels can lead to a higher density through optimizing the requirements in the National Building Code and provide barrier-free ground level units.

C.2. WORK PLAN + METHODOLOGY

KICK-OFF MEETING

Following the award of the contract, a meeting will be organized to kick off the project. We recommend all consultants and client group representatives be present either online (via Zoom or Teams) or in-person. The purpose of this meeting will be to introduce the team, establish clear lines of communication, confirm milestone deadlines, and team meeting dates. Meeting minutes and an updated project schedule will be circulated by MLSA following the meeting.

EXISTING CONDITIONS

Understanding the site will be a key starting point of the project. The design team will begin by visiting the site and documenting it with drone photos and street view photos. All photographs will be captioned and dated with their location and a brief description. Two base maps will be drafted in both 2D and 3D, including important information relating to any applicable by-laws. These two maps will become the base for the four development schemes. DesignPoint will compile record information for the existing services, property mapping, Lidar, etc. Site services (water, sanitary, and storm) will be designed in accordance with Town of Lunenburg requirements.

Value Add: Julian Smith, Heritage Advisor, will work with the team in identifying the relevant principles of Lunenburg's World Heritage listing and National Historic Site designation, and the implication of these principles for the development of appropriate urban design proposals.

URBAN DESIGN WORKSHOP WITH CLIENT GROUP

Once the design team has completed the base maps for the two scenarios, MLSA will coordinate a master plan workshop with the client group. The purpose of this workshop will be to review existing conditions, explore options for the site together, and gain consensus/direction as we continue to explore the four development schemes. Brian MacKay-Lyons will lead the workshop, sketching live with input from the client group.

DEVELOPMENT SCHEMES CONCEPT DESIGN (4 OPTIONS)

With feedback from the workshop and base maps completed, the design team will develop the four site plan layouts. These schemes will be studied in both 2D and 3D massing and will comply with the Town's planning, zoning, and subdivision by-law regulations. MLSA will meet and coordinate with DesignPoint to ensure each scheme meets the necessary servicing and grading requirements. DesignPoint will review the proposed street layout (prepared by MLSA) in terms of general road geometry requirements, as well as intersection locations and pedestrian connectivity.

DRAFT PRESENTATION TO CLIENT GROUP

The four development schemes will be presented to the client group for feedback prior to completion. MLSA will put together site plans and 3D massing for each of the schemes.

FINALIZE FOUR DEVELOPMENT SCHEMES

The design team will summarize feedback from the presentation and incorporate any necessary changes into the design. Once plans, street layouts, and massing are finalized, this will be sent to Hanscomb to complete the order of magnitude for the project.

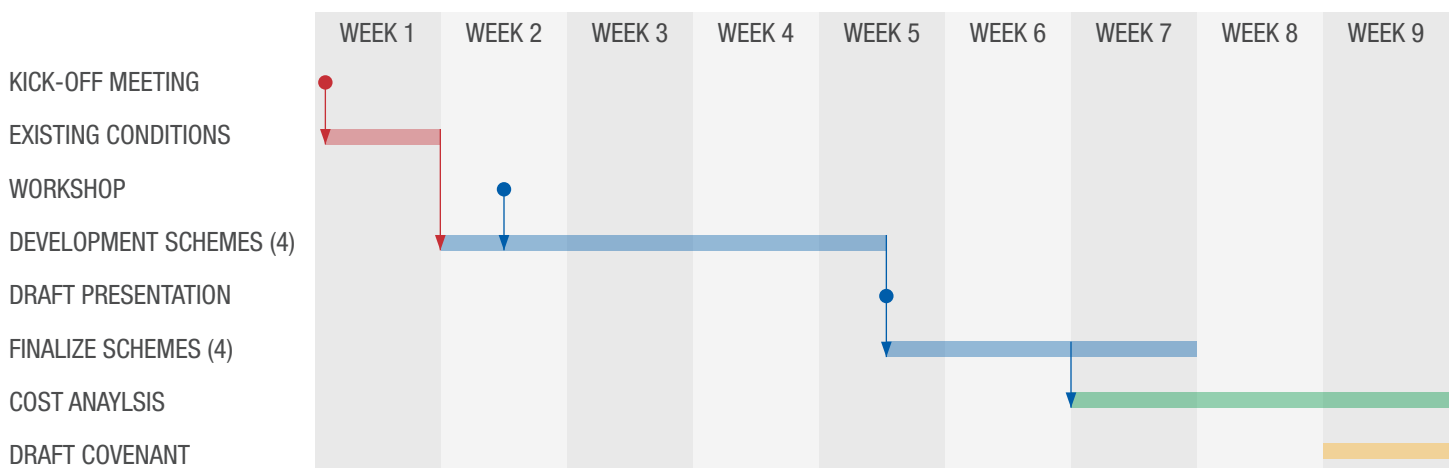
Note: All design, drawings, illustrations, and plans will be submitted to the client group via a file share in their original format as well as PDF format.

COST ANALYSIS

Hanscomb will produce a Rough Order of Magnitude (ROM) for each of the four development schemes. DesignPoint will provide input as it relates to their scope of work to be incorporated in the estimate. The design team will review the estimate completed by Hanscomb and provide any necessary feedback. The final cost analysis will be submitted to the client.

DRAFT COVENANT

A draft restrictive covenant will be written for all four schemes. This work will happen in parallel with costing for the project. The draft covenant will be written to ensure any prospective purchaser will be legally required to fulfill that development scheme.

C.3. SCHEDULE



(top & bottom) Aerial view of the site

D. PROPOSED BUDGET

We are pleased to offer our fees for the Upper King Street Extension Development as follows:

Mackay-Lyons Sweetapple Architects (Prime + Architects)	\$ 37,650
Design Point (Civil)	\$ 15,400
Hanscomb (Cost Estimators)	\$ 9,000
Total	\$ 62,050
<i>Julian Smith (Heritage Consultant)*</i>	<i>\$ 3,000</i>

**Our heritage consultant, Julian Smith, is not included in the team total. This is an option we recommend but will leave it to your expertise to determine if their involvement is of value to this project.*

Fees are subject to applicable taxes and do not include reimbursable expenses. Reimbursable expenses include all printing, plotting, copying, courier, travel expenses and/or vehicle usage at \$125 +HST per day plus fuel cost.

Should your requirements differ from our assumptions, we would be pleased to review our fees with you.

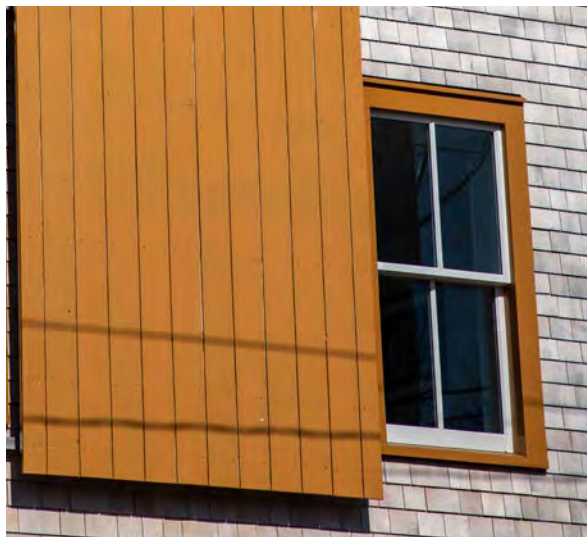
The following breakdown below outlines hourly rates and personnel assigned to each task as outlined in the workplan.

		Kick-Off Meeting		Existing Conditions		Workshop		Development Schemes		Draft Presentation		Finalize 4 Schemes		Cost Analysis		Draft Covenant		TOTAL	
TEAM	\$/hr	hrs	\$	hrs	\$	hrs	\$	hrs	\$	hrs	\$	hrs	\$	hrs	\$	hrs	\$	hrs	\$
Brian MacKay-Lyons	\$350	2	\$700			4	\$1,400	6	\$2,100	2	\$700	2	\$700	1	\$350	8	\$2,800	25	\$8,750
Miranda Bailey	\$150	2	\$300	8	\$1,200	8	\$1,200	24	\$3,600	2	\$300	12	\$1,800	8	\$1,200		\$0	64	\$9,600
Diana Carl	\$175			4	\$700			6	\$1,050			4	\$700			2	\$350	16	\$2,800
Design Staff	\$125			16	\$2,000	8	\$1,000	64	\$8,000	12	\$1,500	32	\$4,000				\$0	132	\$16,500
MLSA TOTAL		4	\$1,000	28	\$3,900	20	\$3,600	100	\$14,750	16	\$2,500	50	\$7,200	9	\$1,550	10	\$3,150	237	\$37,650
Andrew Forsythe	\$180	2	\$360	8	\$1,440			22	\$3,960			8	\$1,440	4	\$720			44	\$7,920
Jorden Keeping	\$85	2	\$170	20	\$1,700			42	\$3,570			8	\$680	16	\$1,360			88	\$7,480
Design Point TOTAL		4	\$530	28	\$3,140			64	\$7,530			16	\$2,120	20	\$2,080			132	\$15,400
Hanscomb TOTAL															\$9,000				\$9,000
TOTAL			\$1,530		\$7,040		\$3,600		\$22,280		\$2,500		\$9,320		\$12,630		\$3,150		\$62,050

Julian Smith*	\$150	2	\$300	4	\$600	4	\$600	8	\$1,200		\$0	2	\$300		\$0		\$0	20	\$3,000
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"Perhaps, despite our globalized world, this is still the mythic stuff of which some kind of cultural resistance may yet be enjoined."

Kenneth Frampton, Architectural Historian
on the work of Brian MacKay-Lyons



(top) Community gathering at Shobac, Troop Barn, MLSA
(bottom) B2 Lofts

E. VALUE ADD

PLACE

We understand place as landscape, light, climate, and material culture. Our firm has developed an international reputation for a contextualist approach to design, based on establishing empathy with the 'spirit of a place' and using this to inform our decisions on material, siting, form, and function. Designing architecture with sensitivity to the particular site and place it comes from is at the core of our design philosophy, and ultimately results in a more thoughtful and authentic building. Whether we are designing a custom home on the coast of Nova Scotia or the Canadian Embassy in Dhaka Bangladesh, our goal is to have the building come from that place and be inspired by the local vernacular, **material culture** and tradition of the location. We also understand place as knowledge of the history of the site.

Place is central to our collective belief in the unique capacity for architecture to enhance the qualities of a site through lived experience. This builds from an emphasis on the essential role that climate plays in determining architectural form and orientation, the unique qualities of the Land – including its geographical and spiritual features, and the material conversation between building and environment.

COMMUNITY

We understand community as it is expressed through participatory design, social agency, urbanism, design/build experience, and architecture as a sustainable art. A community has its roots in the dwellings of all those who have inhabited a place before us, and the sustainability of a community depends on learning the lessons their buildings can teach us. Every community is in some ways unique, having developed as an appropriate response to its material culture, environmental context, and the character of its members. We prefer to develop actual design in direct collaboration with you. We employ a **participatory design** approach as one of the cornerstones of our design process. Clients and community members are valued collaborators in shaping project programs and determining design direction. Through participatory design, every project is endowed with a shared pride from the local community and infused with the cultural history of the site.

MATERIAL CULTURE

We have undertaken a life-long critical study of local buildings, both historical and contemporary, including barns, farmhouses, fishing sheds and vernacular houses. These studies involve an understanding of the local building tradition, its typical materials, and methods of construction. Regional material culture is drawn upon for its inherent wisdom, and this translates directly into longer-lived buildings that employ inherently renewable local materials. Our work consistently exemplifies this philosophy.



F. APPENDIX

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RAYMOND MURRAY

DESIGN POINT

ANDREW FORSYTHE

JORDAN KEEPING

JULIAN SMITH

3.0 PROPOSAL FORM

BRIAN MACKAY-LYONS

Architect, Professor, M. Arch, FRAIC, RCA, Hon.Int. FAIA,
Int. FRIBA
NSAA, AAPEI, AANB, OAA, NH, VT, UT



Brian has a deep connection to this place. He was born and raised on Nova Scotia's south shore of Acadian and Mi'kmaq ancestors. He received his Bachelor of Architecture at the Technical University of Nova Scotia, and his Master of Architecture and Urban Design from UCLA.

After studying and working in Japan, Italy, and California, he has developed a leading global architecture practice from Nova Scotia that has been honoured with over 150 awards for architecture, including the Royal Architectural Institute of Canada (RAIC) Gold Medal in 2015, and the Global Award for Sustainable Architecture in 2017 in Paris under the patronage of UNESCO. The work of his firm has been recognized in 750 publications, including 6 monographs, and has been featured in over 100 exhibitions internationally.

Brian has been a professor of architecture at Dalhousie University for 37 years and has held 17 endowed academic chairs and visiting professorships at leading universities in North America and Europe. For some 30 years, each year, Brian has brought his architecture students to Lunenburg as a vehicle to teach them about infill design in a historic context.

MACKAY-LYONS
SWEETAPPLE
ARCHITECTS

EDUCATION

- 1982 Master of Architecture (Urban Design),
University of California at Los Angeles, CA
- 1982 Residency, International Laboratory for
Architecture and Urban Design, (ILAUD),
Siena, Italy
- 1978 Bachelor of Architecture,
Technical University of Nova Scotia, Halifax, NS
- 1977 Study Abroad, China and Japan
- 1974 Bachelor of Environmental Design, Technical
University of Nova Scotia, Halifax, NS
- 1972 Science, Dalhousie University, Halifax, NS

PRACTICE

- 2005 MacKay-Lyons Sweetapple Architects Limited,
Halifax, NS
- 1985 Brian MacKay-Lyons Architecture Urban
Design, Halifax, NS
- 1983 Emodi and MacKay-Lyons Architects,
Halifax, NS
- 1982 Moore, Ruble, and Yudell, Santa Monica, CA
- 1980 The Urban Innovations Group, Los Angeles, CA
- 1978 Networks Limited, Halifax, NS (President)
- 1977 W. Brian Edwards Architect Ltd.,
Edmonton, AB (Intern)
- 1975 Design Workshop Ltd., Moncton, NB (Intern)

RELEVANT PROJECT EXPERIENCE

- Tartan Downs Development Phase 1, Sydney, NS
- Maynard Town Homes, Halifax, NS
- Queen's Marque, Halifax, NS
- Shobac Campus, Kingsburg, NS
- B2 Lofts, Lunenburg, NS
- King's Arms Hotel, Lunenburg, NS
- 80 Pelham Street, Lunenburg, NS
- Lunenburg Foundry, Lunenburg, NS

MIRANDA BAILEY

Architect, M. Arch, BEDS, BSc, CE
NSAA



Miranda Bailey was born in Fredericton, New Brunswick. She studied at the University of New Brunswick and graduated in 2009 with a Bachelor of Civil Engineering. Through the co-op project at UNB, Miranda quickly moved into the workforce gaining valuable project management experience working with larger companies like Enbridge Gas and ADI. In 2010, Miranda went back to school to study architecture at Dalhousie University. She graduated with a Bachelor of Environmental Design Studies in 2012 and a Master of Architecture in 2014.

During her education at Dalhousie, she studied abroad for a semester in Scotland at Strathclyde University. Also, as part of her education, she completed two design-build free-lab projects. The first of which was working with students from Potlotek First Nations receiving their GED, to build a shed for water and winter activity supplies in the community. The free-lab started out with a public consultation led by the students involved to gain input on community wants and needs for the shed. Working with the students, together they designed and built the project in two weeks.

MACKAY-LYONS SWEETAPPLE ARCHITECTS

EDUCATION

- 2014 Master of Architecture, Dalhousie University, Halifax, NS
- 2012 Bachelor of Environmental Design Studies, Dalhousie University, Halifax, NS
- 2009 Bachelor of Science in Civil Engineering, University of New Brunswick, Fredericton, NB

PRACTICE

- 2020 Assistant Instructor, Dalhousie Design Studio, Halifax, NS
- 2018 Assistant Instructor, Dalhousie Free Lab, CB, NS
- 2015 Architect, MacKay-Lyons Sweetapple Architects Limited, Halifax, NS
- 2013 Architecture Co-op Student (8 months), Exp, Fredericton, NB
- 2011 Architecture Co-op Student (4 months), Architects 4, Moncton, NB
- 2009 Engineer-in-Training and Co-op Student (2 years), ADI, Fredericton, NB
- 2006 Engineering Co-op Student (1 year), Pipeline Inspector, Enbridge Gas, Moncton, NB
- 2004 Summer and Co-op Student (8 months), Maricor Group, Moncton, NB

RELEVANT PROJECT EXPERIENCE

- Tartan Downs Development Phase 1, Sydney, NS
- Margaree Farm Master Plan, Margaree, Cape Breton, NS
- Yarmouth Arts and Cultural Centre, Program and Concept Design, Yarmouth, NS
- Beaverbrook Art Gallery, Fredericton, NB
- Canadian Building Trades Monument, Ottawa, Ont.
- Various Private Homes and Cabins in NB, Ontario, and NS

DIANA CARL

Architect, M. Arch, BEDS, BA, NSAA

MACKAY-LYONS SWEETAPPLE ARCHITECTS



Diana attended the University of Western Ontario from 1990-1993 where she studied in the Sciences program and was a member of the Rowing Crew and Nordic Ski Team. Diana then transferred to the Faculty of Architecture at the Technical University of Nova Scotia to continue her education in architecture, where she graduated with a Master of Architecture in 1997.

She is an architect with over 20 years of experience. Her experience includes several renovation projects on the Dalhousie Campus, both as a designer with Dalhousie Facilities Management and an intern at FBM Architects. This work included renovations to Gerard Hall, the campus bookstore and health clinic. Diana has further experience with University projects as a team member with MLS Architects on the Academic Resource Centre at University of Toronto and Schools of Business and Nursing at University of PEI. Diana strives to bring excellence and continuity to each detail of the project, engaging in programming at the onset and following the project through to contract documents and administration.

EDUCATION

- 1997 Master of Architecture, Technical University of Nova Scotia (TUNS), Halifax, NS
- 1995 Bachelor of Environmental Design Studies, TUNS, Halifax, NS
- 1993 Bachelor of Science Program, University of Western Ontario, London, ON

PRACTICE

- 2005 Project Architect, MacKay-Lyons Sweetapple Architects Limited, Halifax, NS
- 2002 Intern Architect, Fowler Bauld and Mitchell Architects Limited, Halifax, NS
- 2001 Intern Architect, Public Works and Government Services Canada, Architectural Services, Halifax NS
- 1999 Intern Architect, Dalhousie University Facilities Management, Halifax NS
- 1997 Intern Architect, CIBC Development Corporation, Branch Design Group, Toronto, ON
- 1996 Intern Architect, Plesch + Weller Architekten, Stuttgart, Germany

RELEVANT PROJECT EXPERIENCE

- MacKay-Lyons Sweetapple Architects Office, Halifax, NS
- B2 Lofts, Lunenburg, NS
- King's Arms Hotel, Lunenburg, NS
- UPEI School of Business, Charlottetown, PE
- UPEI School of Nursing, Charlottetown, PE
- Colchester Regional Public Library, Truro, NS
- Canadian High Commission, Dhaka, Bangladesh
- The Plaza Building, Brock University, St. Catharines, ON
- Academic Resource Centre, University of Toronto, Scarborough, ON
- Various Private Homes

Raymond Murray, PQS, MRICS

Vice President



YEARS OF EXPERIENCE

Hanscomb: 32 Total: 33

EDUCATION

Nova Scotia Community
College • Construction
Administration Technology
Graduate

Certified Engineering
Technician, Society of
Certified Engineering
Technicians and
Technologists of
Nova Scotia

PROFESSIONAL QUALIFICATIONS

Professional Quantity
Surveyor: Canadian Institute
of Quantity Surveyors **PQS**

Member: Royal Institute of
Chartered Surveyors **MRICS**

PROJECT ROLE

Principal and Senior Cost Consultant

PROFESSIONAL EXPERIENCE

Raymond Murray is the Vice President and oversees Hanscomb's Halifax office. The Halifax office is in charge of Hanscomb's Atlantic projects including Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland and Labrador. With an extensive portfolio over many years in Loan Monitoring and Cost Planning and Control services, he is one of the most respected Cost Consultants in Atlantic Canada and across the country.

Raymond's work experience includes a diverse range of projects in both Canada and the United States. Projects have ranged from small renovations to educational facilities, hospitals, amusement parks, museums, DND projects, residential and apartments, theatres, commercial and retail, and casinos. As a highly skilled cost consultant and leader, his expertise includes cost planning, trade breakdowns, building cost comparison studies, mortgage monitoring, bills of quantities, scheduling, cash flows, budget status reports, capital replacement costs, change order monitoring and value management workshops.

EXPERIENCE

Name: ***Bloomfield Developments, Halifax, NS***
Masterplan: *\$93.7 Million*
Size: *7 Buildings, 600,000sf GFA*

Name: ***Meadow Ridge Estates, Upper Sackville, NS***
Budget: *\$1.7 Million*
Size: *56 Acres*
Description: *Site Development including clearing and preparation of land for new building lots and street access, road construction, and services to 26 residential lots.*

Name: ***Villages of Long Lake East Uniacke, NS***
Budget: *\$10.12 Million*
Size: *Site Development for 82 residential lots, 537,467m²*

Name: ***Brunello Estates – Phase 1, Timberlea, NS***
Budget: *\$16.35 Million*
Size: *183 hectares*
Description: *194 residential lots plus MUR lands yielding 348 units. The work will include the clearing and preparation of land for new building lots and street access, road construction, municipal services (storm drainage, sanitary drainage, power lines, etc.), construction of a storm pond and water booster station.*

Name: ***Tartan Downs – Phase 1 & 2, Sydney, NS***
Budget: *\$107.7 Million*
Size: *24 acres*
Description: *Former site of the Tartan Downs Racetrack, the new development will incorporate modern mixed residential, commercial and community development. Between the 2 Phases, it is expected that the new development will include 330 Townhouses, 3-30+unit apartments, commercial spaces, community greenspace and a community building.*

JORDAN KEEPING

Engineering Technologist

PROFILE

Jordan Keeping has been building experience in civil and municipal design and construction since graduating from Nova Scotia Community College in May, 2015 and has experience with construction inspection and testing pressure pipes.

EDUCATION

AutoCAD Civil 3D Advanced Road Design Course (2016)
Civil Engineering Technology Diploma, Nova Scotia Community College, Dartmouth NS (2015)

CAREER

Engineering Technologist, DesignPoint (Jan 2019 – Present)
Civil Engineering Technologist, ABLE Engineering, (May 2016 – Dec 2018)
Construction Materials Technician, AMEC Foster Wheeler May, (2015 - May 2016)
Construction Inspection Assistant, Halifax Regional Municipality, (June 2014-Sept 2014)

PROFESSIONAL EXPERIENCE

Tyler Street Extension Development, Enfield, NS (2020): Engineering Technologist providing inspection services for the new urban residential development in Enfield, NS that includes 52 townhome units on a 240m long extension of Tyler Street and 36 semi-detached units on a new 225m long crescent that intersects with Tyler Street. Duties include supervision of the municipal water, wastewater, and stormwater system installation and testing to ensure the work was completed in accordance with the approved design, coordination of communication between the contractor and design engineer, collection and review of as-builts on the municipal systems using a total station, and record drawing production from as-builts collected.
Client: FH Development Group.

Springhill Geothermal Business Park, Springhill, NS (2019): Engineering Technologist involved with the concept design for a green business park in Springhill that harnesses the geothermal potential of an abandoned mine network. The project included the concept design of the road systems, lot layouts and the storm, water, sanitary and geothermal services.
Client: Cumberland Energy Authority (CEA)

Olde Town Hills Subdivision, Bridgewater, NS (2016): Engineering Technician (while at ABLE Engineering) involved with the design of a fully serviced 15 acre subdivision with approximately 30 single family homes and two 30-unit apartment buildings. Work included road plan and profiles and full water, storm, wastewater servicing and storm water management pond design.
Client: Town of Bridgewater

48 Farrington Way Apartment, Bedford, NS (2021): Engineering Technologist involved with the design and production of engineering drawings for a 40-unit apartment building. The project included water, sanitary and storm water management designs for the entire site, as well as site design and grading.
Client: Jetco Contracting Inc.



EXPERTISE

- Civil/Municipal Design
- Preparation and Production of Engineering Drawings
- Construction Inspection and Testing

ANDREW FORSYTHE, P.Eng. PRINCIPAL - Senior Civil Engineer

PROFILE

Andrew has over 23 years of experience in municipal engineering. He has had extensive involvement in the master planning, modelling, design, and construction of municipal infrastructure projects. This experience includes numerous public sector projects as well as residential, commercial, and industrial developments ranging from commercial site development to large scale residential communities. Andrew previously managed a 45+ person engineering group specializing in land development, municipal infrastructure, traffic engineering, building engineering, and geotechnical engineering.

EDUCATION & TRAINING

Financial Management for Firm Leaders, PSMJ Resources Inc., Boston, MA (2018)

Trenching & Excavation Awareness, HSE Integrated, Bedford, NS (2018)

Atlantic Stormwater Initiative, Canadian Chapter of the International Erosion Control Association (CAN IECA), Halifax, NS (2017)

Bachelor of Engineering (with distinction), Civil, Technical University of Nova Scotia, Halifax, NS (1998)

Bachelor of Science, General and Certificate of Applied Science, Acadia University, Wolfville, NS (1995)

PROFESSIONAL AFFILIATIONS

Member, Engineers Nova Scotia

Former Director, Urban Development Institute, Consulting Engineers of Nova Scotia and Chebucto Wind Field Inc.

CAREER

Founder/Principal, DesignPoint (2014 - Present)

Manager, Engineering, GENIVAR/WSP (2010 - 2014)

Manager, Engineering, Terrain Group Inc. (2009 - 2010)

Project Engineer, Terrain Group Inc. (1997 - 2009)

PROFESSIONAL EXPERIENCE

Briarwood Development, Spryfield, NS (Ongoing): Project Manager responsible for the concept plan and detailed design (currently underway) for a 50 acre residential development in Spryfield, NS. The developed will be fully serviced with water, sanitary, and storm systems including curb and gutter.

Client: United Gulf Developments.

The Links at Brunello, Timberlea, NS (Ongoing): Senior advisor for the detailed design services associated with phases 3-10 for the Brunello Estates development. This project includes approximately 1500 m of new fully serviced roads proposed roads with curb and gutter, sidewalks, water, wastewater, and stormwater systems.

Client: Brunello Estates.



EXPERTISE

- Municipal Infrastructure Design
- Water, Stormwater, and Wastewater System Design
- Institutional and Commercial Site Design
- Land Development

JULIAN SMITH, C.M.

Julian Smith & Associates Architects
1205 Put-in-Bay Road, Unit 2
Huntsville, ON P1H 2J6
tel: 613-390-0980
julian@juliansmitharchitects.ca



EDUCATION

1977	Certificate	Cornell University Preservation planning	Ithaca, N.Y.
1975	M. Arch.	M.I.T. AIA School Medal / Top student in graduating class Rotch Travelling Fellowship	Cambridge, Mass.
1969	B.A.	Oberlin College Magna Cum Laude / Phi Beta Kappa	Oberlin, Ohio.

EXPERIENCE

1987-	Principal, Julian Smith & Associates, Architects	Ottawa, Ontario
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Private practice combining international standards of preservation practice with full services in contemporary planning and design.

Heritage district projects and policies:

- 2011 UNESCO Recommendation on the Historic Urban Landscape
- Identification and Evaluation of Heritage Districts, Ministry of Culture, Ontario
- Byward Market Heritage District Study, Ottawa
- Village of Rockcliffe Park Heritage District Study, Rockcliffe Park
- Douglas Avenue Heritage District Study, Saint John
- Peacham National Register District, Peacham, Vermont
- Confederation Square & Plaza Bridge Redevelopment (with McNeely & PFS)

Preparation and implementation of master plans for culturally-significant properties:

- Queen's University Master Plan (with Urban Strategies)
- Master Plan for the new Canadian Embassy, Beijing, China (with PFS)
- Campus plan for the new Canadian Embassy, Villa Grazioli, Rome, Italy
- Campus plan, Satellite Campus, Madurai Kamaraj University, India
- Central Experimental Farm Master Plan, Ottawa (with Contentworks, PFS)
- Ontario Parliament Buildings and Grounds Master Plan, Queen's Park, Toronto
- Landscape Master Plan for Parliament Hill, Ottawa (with PFS)
- Landscape Master Plan for Rideau Hall, Ottawa (with PFS)
- Notre Dame Cathedral Master Plan, Ottawa

Conservation, restoration and adaptive reuse of designated historic properties:

- Vimy Monument, Arras, France
- New Canadian Embassy, Paris, France (with Jean-Paul Viguiet)
- Halifax Armoury, Halifax (with EastPoint)

REQUEST FOR PROPOSALS
Upper King Street Extension Development

3.0 PROPOSAL FORM

NAME OF PROPONENT: MacKay-Lyons Sweetapple Architects

Do not include HST in the Amount of Proposal. All of the below pricing is to be in Canadian Dollars.

Amount of Proposal.....	\$ <u>62,050</u>
HST.....	\$ <u>9,307.50</u>
Total.....	\$ <u>71,357.50</u>

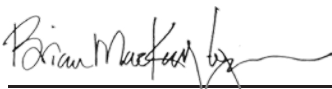
Please attach the following additional information:

- Start and end time required to complete the work.
- Two relevant work references and contact phone numbers.

Mailing Address 2188 Gottingen Street, Halifax NS B3K3B4

Phone Number 902-429-1867

Email Address brian@mlsarchitects.ca

Signature 

Print Name & Title Brian MacKay-Lyons, Principal

Date June 30, 2022

Witness Amanda Peters

Date June30,2022

Details of Proposal – please attach your submission details as required in this RFP.



Proposal Contact:
Brian MacKay-Lyons
902-429-1867
brian@mlsarchitects.ca

D. PROPOSED BUDGET R1

We are pleased to offer our revised fees for the Upper King Street Extension Development as follows:

MacKay-Lyons Sweetapple Architects (Prime + Architects)	\$ 37,650
Design Point (Civil)	\$ 15,400
Hanscomb (Cost Estimators)	\$ 9,000
Total	\$ 62,050
<i>Julian Smith (Heritage Consultant)*</i>	<i>\$ 3,000</i>
<i>Expenses:</i>	
<i>1 trip, 2 days for Heritage Consultant</i>	<i>\$ 2,000</i>

**Our heritage consultant, Julian Smith, is not included in the team total. This is an option we recommend but will leave it to your expertise to determine if their involvement is of value to this project.*

All fees are subject to applicable taxes.

Should your requirements differ from our assumptions, we would be pleased to review our fees with you.

The following breakdown below outlines hourly rates and personnel assigned to each task as outlined in the workplan.

TEAM	\$/hr	Kick-Off Meeting		Existing Conditions		Workshop		Development Schemes		Draft Presentation		Finalize 4 Schemes		Cost Analysis		Draft Covenant		TOTAL	
		hrs	\$	hrs	\$	hrs	\$	hrs	\$	hrs	\$	hrs	\$	hrs	\$	hrs	\$	hrs	\$
Brian MacKay-Lyons	\$350	2	\$700			4	\$1,400	6	\$2,100	2	\$700	2	\$700	1	\$350	8	\$2,800	25	\$8,750
Miranda Bailey	\$150	2	\$300	8	\$1,200	8	\$1,200	24	\$3,600	2	\$300	12	\$1,800	8	\$1,200		\$0	64	\$9,600
Diana Carl	\$175			4	\$700			6	\$1,050			4	\$700			2	\$350	16	\$2,800
Design Staff	\$125			16	\$2,000	8	\$1,000	64	\$8,000	12	\$1,500	32	\$4,000				\$0	132	\$16,500
MLSA TOTAL		4	\$1,000	28	\$3,900	20	\$3,600	100	\$14,750	16	\$2,500	50	\$7,200	9	\$1,550	10	\$3,150	237	\$37,650
Andrew Forsythe	\$180	2	\$360	8	\$1,440			22	\$3,960			8	\$1,440	4	\$720			44	\$7,920
Jorden Keeping	\$85	2	\$170	20	\$1,700			42	\$3,570			8	\$680	16	\$1,360			88	\$7,480
Design Point TOTAL		4	\$530	28	\$3,140			64	\$7,530			16	\$2,120	20	\$2,080			132	\$15,400
Hanscomb TOTAL															\$9,000				\$9,000
TOTAL			\$1,530		\$7,040		\$3,600		\$22,280		\$2,500		\$9,320		\$12,630		\$3,150		\$62,050

Julian Smith*	\$150	2	\$300	4	\$600	4	\$600	8	\$1,200		\$0	2	\$300		\$0		\$0	20	\$3,000
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Upper King Street Extension Development RFP Town of Lunenburg TOL2022016





June 30, 2022

Business Coordinator
Town of Lunenburg
119 Cumberland Street
Lunenburg, NS B0J 2C0
E-Mail: purchasing@townoflunenburg.ca

To whom it may concern:

RE: RFP #TOL2022016 – Upper King Street Extension Development

CBCL Limited (CBCL) is pleased to submit the attached Technical Proposal to provide consulting services for the for Upper King Street Extension Development in the Town of Lunenburg. We have assembled a team of highly qualified and experienced professionals to address every aspect of the project and our firm has a great deal of experience working with Lunenburg itself, as well as with other municipalities and Towns of similar size, and experiencing similar requirements.

We fully understand the project objectives and we have prepared a work methodology that provides a logical sequencing of data collection, review, analysis, conceptualization, and reporting. We will prepare a set of comprehensive development schemes for cost-effective, sustainable, and appropriate mixed-use areas, consistent with the Town's goals in the context of ongoing growth and housing pressures in the Province. Through our in-depth Infrastructure Servicing Assessment, we will identify the servicing capacities and constraints facing the development goals, and provide feasible recommendations and cost estimates to ensure adequate servicing of the development.

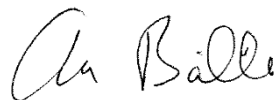
In summary, we feel we have assembled the best team and we have the best approach to assist you with the evaluation of options, planning and development of the Upper King Street lands. We are at your disposal to discuss and refine any aspects of our proposal for this work. We acknowledge receipt of Addendum #1.

Yours very truly,

CBCL Limited



Prepared by:
Emanuel Nicolescu, MCIP, LPP
Transportation and Urban Planner
Direct: 902-421-7241, Ext. 2633
E-Mail: enicolescu@cbcl.ca



Reviewed by:
Aaron Baillie, P.Eng.
Manager, Municipal Engineering

Proposal No: 228414.00

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1 Corporate Profile



Since 1955, CBCL Limited (CBCL) has been a respected and trusted firm, delivering multidiscipline engineering and technical services throughout Canada and around the world. We foster mutual success with our clients, value our employees, and strive to contribute to the communities in which we live and work.

The head office remains in Halifax with branch offices in Sydney, Nova Scotia; Saint John, Moncton, and Fredericton, New Brunswick; Charlottetown, Prince Edward Island; and St. John's and Happy Valley-Goose Bay, Newfoundland. The Halifax office includes transportation, civil, structural, environmental, chemical, industrial, mechanical, and electrical engineers, biologists, quantity surveyors, as well as development and environmental planners. Qualified technical and clerical personnel who work in areas such as automated design and drafting, construction inspection, technical specification production, quantity surveying, and cost estimating are available to support professional staff.

Locally Owned and Operated

The company is owned and operated by senior company employees, all of whom live and work in Atlantic Canada. We are strongly committed to this region and work hard to make our projects a success. Our local focus and expertise allow us to provide engineering support to our clients in Nova Scotia, Prince Edward Island, New Brunswick, and Newfoundland in a much timelier and cost-effective manner than if we had to bring in such expertise from other areas outside Atlantic Canada. This approach has allowed CBCL to respond to both large and small clients alike, tailoring projects to meet specific needs and

constraints, including local stakeholder input and limited budgets. We believe that this approach provides tremendous value to our clients in terms of service delivery.

Sector Specific Experience

CBCL has a long and established history in the planning and execution of multi-disciplinary projects throughout Atlantic Canada in a manner that respects the environment and the principles of sustainable development. The multi-disciplinary personnel at CBCL have considerable experience in planning and design, including roadways, trails and active transportation master planning, transit feasibility, infrastructure design, environmental studies, socio-economic analysis, and public consultation. CBCL was the first integrated consulting firm in North America to earn ISO 9001 for quality management and quality assurance. We bring to this project skills and experience in the management of multi-disciplinary studies and challenging land use and environmental projects, including interaction with multiple community partners and internal and external stakeholders.

CBCL brings over 60-years of experience operating in sensitive coastal and wetland environments and jurisdictions. Our working environments inherently require that we carry out our work through a climate change and environmental lens. CBCL strives to provide high value, ensuring growth and responsible development in areas with water and coastal constraints.

CBCL brings significant know-how to this undertaking, offering a full range of planning and engineering consulting services, including the following:

- ▶ Urban planning.
- ▶ Transportation.
- ▶ Water, wastewater, energy infrastructure.
- ▶ Water resource engineering.
- ▶ Environmental science.
- ▶ Geotechnical engineering.

Most importantly, our team, summarized below, with CVs provided in Appendix C, includes urban planners, municipal engineers, environmental and water resource scientists that have significant experience working with the Town of Lunenburg. Having recently carried out extensive GIS surveying of the Town's water and wastewater assets, we are best placed to understand the servicing options available to potential development in the Town. Furthermore, members of our team have worked directly on assessments of the Town's water and wastewater plants, as well as its pipe networks and sewer pump stations. Lastly, as part of the Project Lunenburg Team with UPLAND, CBCL was integral to the development of the Comprehensive Community Plan, deriving a keen understanding of the community's goals and aspirations.

CBCL is also a member in good standing of Engineers Nova Scotia. We confirm that the work can be commenced immediately upon award.

2 Project Understanding

The current housing crisis is affecting both cities and rural communities globally, including the Town of Lunenburg. Soaring real estate prices have priced many potential buyer and renters out of the market and has brought housing insecurity to the forefront of attention. With a population growth rate of 5.9%, an increase in housing supply, including affordable and accessible units, is critical in supporting the ongoing vitality and prosperity of Lunenburg by attracting population and assisting those most affected by the housing market.

To address the local housing shortage, and to support the goals outlined in the Comprehensive Community Plan, the Town of Lunenburg has adopted new planning rules to support the development of a range of high-quality and affordable housing options. Through the launch of this RFP process, the Town of Lunenburg is seeking to engage a qualified and experienced consultant to provide four (4) proposed development schemes for approximately 4 acres of land at Upper King Street Extension. Aligning with the Town's new planning policy and enabling bylaws, including the Comprehensive Community Plan, Municipal Planning Strategy, Land Use By-law, and Subdivision By-law, the proposed development schemes will reflect complete street principles and barrier-free design. Given the significance of Old Town Lunenburg as a World Heritage Site and National Historic Site as the best surviving example of planned British Colonial settlement in North America, it is paramount that the proposed designs for the development of the King Street Extension complement the World Heritage Site Outstanding Universal Values and the National Historic Site Statement of Significance.

Our understanding of the project is based on our detailed experience undertaking other projects of this nature, our appreciation for efficient use of land to provide a broad range of housing types to accommodate the housing needs of all residents, and for the importance of providing safe and barrier-free access to public spaces and active transportation options.

As understood from the RFP, the project objectives are as follows:

- ▶ Assess and develop two (2) development schemes for a mixed-use residential development consistent with existing zoning requirements (Old Town New Town 2, Medium Density Residential, and Lot Zone 3), including proposed street layout, lot configuration, and use.
- ▶ Assess and develop two (2) development schemes for a mixed-use residential development consistent with proposed zoning requirements (Old Town New Town 2, High Density Residential, and Lot Zone 3), including proposed street layout, lot configuration, and use.

- ▶ Assess existing infrastructure (water, wastewater, etc.) to support the four (4) development schemes and provide a proposed servicing plan for each.
- ▶ Provide a general financial cost analysis for each of the four (4) proposed development schemes.
- ▶ Develop an enforceable agreement (i.e. restrictive covenant or other suitable means) that limits how a prospective purchaser can develop the property; requiring them to fulfill the development scheme as presented.

We understand that under current zoning, the Medium Density Residential Use (RM) Zone is intended to encourage medium-density residential uses, such as semi-detached dwellings, duplex dwellings, and triplex dwellings, and enables the development of the following uses:

MEDIUM DENSITY RESIDENTIAL		
Residential	Commercial	Other
Dwellings with up to 4 units	Home-based Businesses	Parks and Playgrounds
Accessory Dwellings	Short-term Rentals	Trails and Conservation
Bed-and-Breakfasts		Urban Agriculture
Residential Care Facilities		Water Access
Rooming Houses		
Small Options Home		

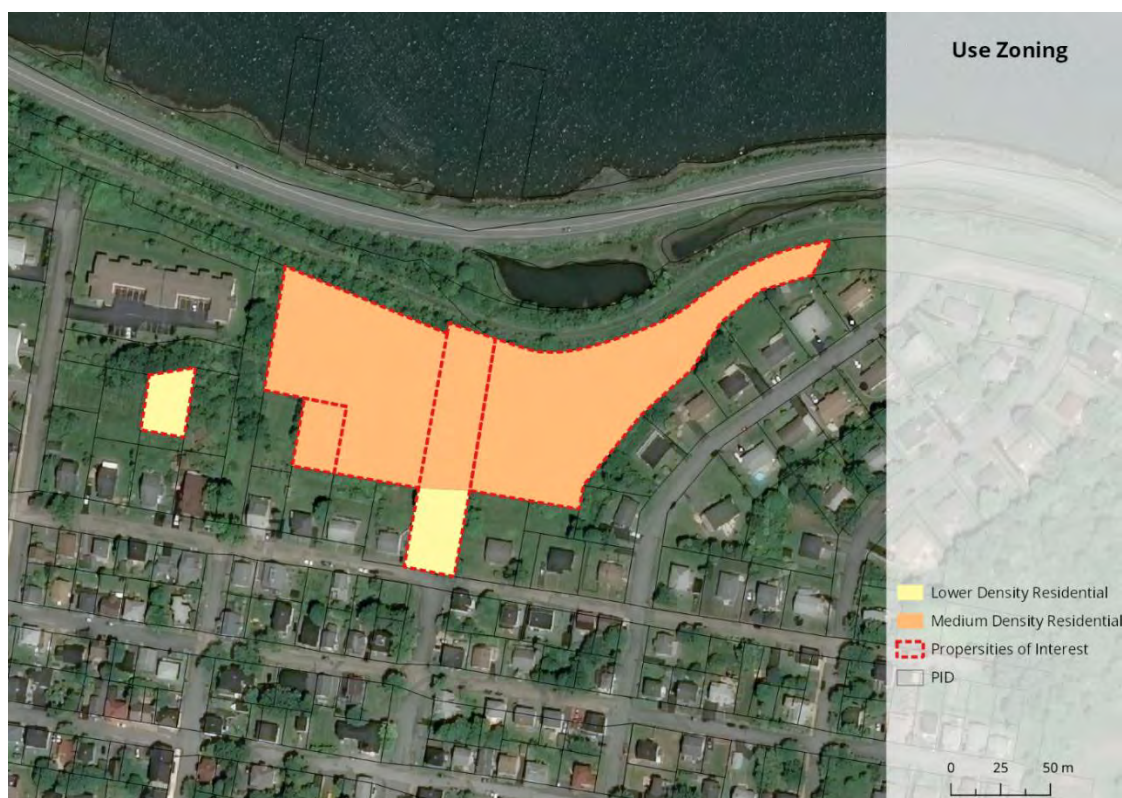


Figure 2-1: Current Zoning

The Higher Density Residential Use (RH) Zone supports generally the same uses as the RM Zone, with the focus on higher-density residential permitting multi-unit dwellings with more than 4 units:

HIGHER DENSITY RESIDENTIAL		
Residential	Commercial	Other
Multi-unit Dwellings	Home-based Businesses	Parks and Playgrounds
Accessory Dwellings	Short-term Rentals	Trails and Conservation
Bed-and-Breakfasts		Urban Agriculture
Residential Care Facilities		Water Access
Rooming Houses		Daycare Centres
Small Options Home		
Nursing Homes		

Particularly noteworthy, the new Form zoning allows enhanced flexibility and control over the type of development. We note that the extent of the Old Town New Town 2 zoning on part of the development properties may be moot in the event the property is used to extend the King Street right-of-way.



Figure 2-2: Current Zoning – Form Zones

Our understanding of the project is based on our detailed experience undertaking projects of this nature, our appreciation for efficient use of land to provide a broad range of housing types to accommodate the housing needs of all residents, and for the importance of providing safe and barrier-free access to public spaces and active transportation options.

Through our past project experience with the Town of Lunenburg, we have gained an intimate understanding of the Town's municipal services and infrastructure. Having completed many projects for the Town including but not limited to the design of the water treatment plant, process review and evaluation of the sewage treatment plant, wastewater collection system inflow and infiltration study, water and wastewater system survey & GIS, CBCL is very familiar with the Town's water and wastewater infrastructure. Furthermore, through our work on the Town of Lunenburg's Comprehensive Community Plan, we have attained a comprehensive understanding of the Town's transportation networks including system deficiencies and opportunities in terms of access and multimodal mobility.

3 Project Team

3.1 Project Team Member Roles, Skills, Qualifications and Experience

We have assembled a team of highly qualified and experienced professionals to address every aspect of the project. The proposed role, relevant skills, qualifications, and experience of each key team member are summarized in this section. Detailed CVs for each key team member are included in Appendix C.

Aaron Baillie, P.Eng. – Project Manager



Aaron is the Municipal Department Head in CBCL's Halifax office. He has degrees in Environmental Engineering (P.Eng.) and Agricultural Mechanization (B.Sc.) with more than twenty two (22) years of experience in the water and wastewater treatment industry. Aaron has been involved in all aspects of project delivery including planning, detail design, assessments, project management, construction administration, and commissioning. His experience includes evaluation and design of water/wastewater plants and pump stations, piping system design, hydraulic assessments, and municipal services design.

Aaron has been involved in the following relevant projects:

- ▶ Glooscap Landing – Project Manager and Design Lead for a commercial development for a first nation community on NS. The project included extending water and sewer services by an adjacent community, street design, roundabout design, site grading, and parking lot design.
- ▶ Performed assessments of proposed subdivisions to determine lot sizing and placement of on-site sewerage disposal systems based on environmental regulations.
- ▶ Design of onsite sewage treatment systems for various first nation buildings, schools, and public buildings throughout Atlantic Canada.
- ▶ Annapolis Valley First Nation – involved in the planning of an expansion to the community which included street design, environmental permitting, and sewer and water extensions.
- ▶ Completed various watermain and street renewal projects for the community of Parrsboro. The projects included water service extensions to unserved areas, replacement of existing water and sewer services, and replacement of street surface.

Aaron will be responsible for overall coordination and delivery of the project as a whole. He will provide the primary point of contact and will direct / advise / coordinate on an ongoing basis throughout the duration of the project. He will be responsible for the day-to-day requirements of the project and the coordination of project team members. He will also play a role in the planning and concept design exercises of this assignment.

Emanuel Nicolescu, MCIP, LPP – Transportation and Urban Planner



Emanuel is a registered professional planner with ten (10) years of experience in urban and transportation planning, traffic engineering and transportation modelling. He has a broad range of development planning and transportation project experience, including multimodal travel demand forecasting, roundabout design, traffic operations, transit, parking, and planning studies.

Over the years, Emanuel has worked for public-sector clients like the Halifax Regional Municipality, City of Toronto, City of Montreal, City of Gatineau, Metrolinx, Toronto Transit Commission, and Town of Caledon, as well as numerous private-sector clients like Loblaws, Lifetime Developments Inc., and Mattamy Homes. While his project work has been focused on Southern Ontario, the Greater Toronto Area, and the Montreal Area, Emanuel also has international experience. Having worked in India, he was instrumental in the development of travel demand models as part of the Comprehensive Transportation Study for the Hyderabad Metropolitan Area in the state of Andhra Pradesh (Now Telangana).

In his role as Urban Planner, Emanuel is responsible for reviewing local planning policy documents, zoning by-laws and guideline applicability to ongoing projects. As a Transportation Planner, Emanuel is responsible for travel demand forecasting, transportation operations and traffic engineering analyses, traffic impact and parking studies, and the production of comprehensive transportation models at the macro-, meso- and microscopic levels. He is experienced with Synchro/SimTraffic, TSS Aimsun, PTV Vissim & Visum, Caliper TransCAD, INRO Emme, and TRL Arcady. Emanuel also has a good working knowledge of Geographic Information Systems (GIS) platforms like ArcMap and QGIS, and their application to urban planning and transportation operations assessment.

Emanuel has been involved in the following relevant projects:

- ▶ Potlotek Subdivision Feasibility Study, Potlotek First Nation, NS.
- ▶ Sipekne'katik Subdivision Feasibility, Sipekne'katik First Nation, NS.
- ▶ Potlotek Land Use Plan, Potlotek First Nation.
- ▶ Town of Lunenburg Comprehensive Community Plan, Town of Lunenburg, NS.
- ▶ Charlottetown Growth Management Strategy, City of Charlottetown, PEI.

Emanuel will be lead the Planning and Conceptual Design components of the project.

Emma MacEachern – Urban Planner



Emma joined CBCL in 2021 as an Urban Planner in the CBCL Halifax Office. She obtained a Bachelor of Community Design Honours in Urban Design and Planning degree from Dalhousie University, pursuing her thesis research in scenario planning for new mobility solutions. During her academic career, Emma completed several internships, gaining planning experience in areas of real estate development, active transportation, and low carbon mobility solutions. Since joining CBCL, Emma has gained a range of planning and transportation project experience, including planning studies, accessibility planning, and traffic improvement studies.

Emma has been involved in the following relevant projects:

- ▶ Potlotek Subdivision Feasibility Study, Potlotek First Nation.
- ▶ Norman's Cove – Long Cove Municipal Plan Review, Norman's Cove – Long Cove, NL.
- ▶ Long Harbour – Mount Arlington Heights Municipal Plan Review, Long Harbour – Mount Arlington Heights, NL.

Emma will provide support with the Planning components of the project.

David Copp – Transportation Engineer-in-Training



David joined CBCL in 2021 as Transportation Engineer-in-Training within the Municipal Engineering Group. He obtained a Bachelor of Science in Civil Engineering from the University of New Brunswick, and continued his education as a member of the UNB Transportation Research Group while completing his Master of Science in Engineering with a specialization in transportation engineering. During his academic career he gained experience in geometric design, traffic engineering and transportation planning using a variety of standards like the TAC Geometric Design Guide for Canadian Roads, the Highway Capacity Manual, and the Transportation Planning Handbook. During his time at CBCL he has gained further exposure to engineering design/planning software like AutoCAD, Civil3D, and QGIS as well as developing preliminary designs and calculating quantity take-off estimates.

Most recently, David has been involved in the following relevant projects:

- ▶ Middleton Industrial Park Expansion Study – Middleton, NS.
- ▶ Mill Cove Ferry Terminal Concept Design – Halifax, NS.
- ▶ Sipekne'katik First Nation Gaming Centre Access – Hammonds Plains, NS.

David will be carrying out modelling of conceptual design layouts in InfraWorks.

Jeff Clair, P.Eng. – Municipal Engineer



Jeff is a registered professional engineer with over twelve (12) years of experience. Jeff's responsibilities include project management, concept studies, preliminary and detailed design, tendering, procurement, construction administration and cost estimating.

Jeff has been involved in the following relevant projects:

- ▶ Williams Lake Pump Station Upgrades – Design engineer for the upgrades to an existing sanitary lift station.
- ▶ Silverside Booster Station Upgrades – Project Manager and design engineer for the upgrades to replace all the mechanical and electrical equipment for an existing inline domestic only booster pump station.
- ▶ Caledonia Transmission Main Replacement and Tacoma PRV Replacement – Project manager design engineer and construction administrator for a 1.7 km long 750 mm diameter (30") potable water transmission main.
- ▶ Potlotek Water Treatment Plant – Lead civil engineer for the preliminary and detailed design of 700 m long 200 mm diameter water transmission main, 680 cubic meter (180,000 USgal) water storage standpipe.

Jeff will be reviewing the impacts on the existing water distribution system for the project and will be identifying any upgrades to the system that might be required.

Abdullah Khayyal – Civil Designer



Abdullah is a Civil Designer with over 11 years of experience. He joined CBCL in 2019, bringing a total of 9 years of worldwide experience in Transportation Engineering. He has experience in delivering design and analysis objectives of a variety of projects related to land development, urban planning, transportation and civil engineering in more than 10 countries. In these projects he provided engineering design and data analysis to deliver traffic impact and parking demand studies as well as the geometric design of highways, roundabouts and interchanges, applying TAC, ITE, HCM, AASHTO and MUTCD standards.

Abdullah has experience in design using AutoCAD Civil 3d as a professional user and instructor, and he is also capable of fulfilling traffic flow simulation and analysis requirements using software packages like Synchro, Sidra Intersection and PTV Vissum. He is capable as well of conceptualizing and visualizing road elements using Autodesk InfraWorks.

Abdullah will be carrying out drafting services throughout the course of the project and he will be intimately involved with preparing concept layouts for the proposed development schemes as required.

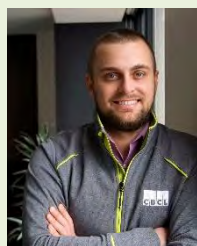
Simon Pellerin – Municipal Engineer-in-Training



Simon is a Municipal Engineer-in-Training who joined the CBCL team in 2021. Simon graduated from Dalhousie University in 2019 with a Bachelor in Civil Engineering. Simon's previous experience with Sco-Terra Consulting Group in London, Ontario includes a wide variety of field, design, and construction responsibilities on both private and municipal infrastructure projects. Field work was comprised of topographic surveys, utility mapping, and condition assessments for existing infrastructure. Key areas of design focus include site servicing, storm water management, and wastewater collection and treatment. His construction experience is comprised of layout surveys, quality control inspection, and contract administration. Relevant local experience with CBCL includes the design, inspection, and commissioning of water services for commercial and institutional buildings in accordance with Halifax Water standards and is currently supporting the hydrant flow testing and model calibration program for the Municipality of West Hants.

Simon will be reviewing the impacts on the existing water and wastewater collection systems for the project and will be identifying any upgrades to the systems that might be required.

Alan Ehrenholz – Municipal Engineer-in-Training



Alan joined CBCL in 2019 as a Municipal Engineer in Training. He has over three years of Civil Engineering experience working in Municipal and Transportation engineering. Alan's responsibilities include providing engineering and design services to a wide variety of civil engineering projects, including those related to road and highway design, municipal stormwater and wastewater design, institutional and industrial site servicing, as well as working extensively on port and rail design.

A few of the most relevant projects that Alan has been involved in are:

- ▶ Town of Lunenburg Water and Wastewater System Survey & GIS
- ▶ HRM Compost DBOOT (Halifax, NS) – Provided civil and transportation design for a new regional compost facility. Work included running AutoCAD Vehicle Tracking Analysis and focusing on ensuring passenger vehicle and pedestrian safety on the site. Stormwater and wastewater management, site grading, quantity take offs, and material volume analysis and optimization were conducted as a part of the project. Reviewed geotechnical report to determine subgrade requirements for the building and roadways. Provided stormwater pond sizing and design, access road profile and corridor design, as well as overall site grading plan. Continued to provide construction services including reviewing and responding to site instructions, contemplated change orders, change orders, and shop drawings.
- ▶ Mill Cove Ferry Services (Halifax, NS) - Provided preliminary design and option engineering analysis for a new ferry service from Mill Cove to Downtown Halifax. This

included working with a multidisciplinary team to analyze the business case, development, grading, servicing, landscaping, terminal design, road layout, access options including a rail overpass, geotechnical conditions, and marine requirements.

- ▶ Bluenose Drive Sewer Lining (Lunenburg, NS) – Provided design services for a 150m length of 900mm Cured-in-Place-Pipe, both reinforced and unreinforced designs, along Bluenose Drive. Included preparing and presenting at a public consultation to provide information on the methodology and to collect feedback from stakeholders. Continued to provide tender and construction services for the project, include site observation, shop drawing review, and testing result review.

Alan will be carrying out drafting services throughout the course of the project and he will be intimately involved with preparing concept layouts for the proposed development schemes as required.

Allan Beaton, EIT – Civil Engineer in Training



Allan is a Civil Engineer-in-Training with two-years of experience. Allan's primary focus is on Municipal Engineering including assistance in design support. Usage of software including AutoCAD Civil 3D and ArcMap GIS to aid in design, data analysis/production and mapping purposes as well as construction site inspection services and construction processes documentation.

Allan has been involved in the following relevant projects:

- ▶ CBRM Prime Brook Flood Study – Field program and modelling support using Civil 3D and GIS software in Flood Study of Prime Brook to determine flood areas.
- ▶ CBRM Glace Bay Asset Management – Civil Engineer in Training. Field inspection work of existing infrastructure. Usage of AutoCAD and GIS software to produce, analyze and present data, used for design.
- ▶ CBRM Port Morien Asset Management, NS – Usage of AutoCAD and GIS software to produce mapping of existing infrastructure and geographical features of the area.
- ▶ CBVRCE Glace Bay High Connector Path, NS – Civil 3D. Usage of Civil 3D to aid with Design and site work including topographic survey.
- ▶ CBVRCE Memorial High Foundation Drain, Sydney Mines, NS. Usage of Civil 3D to aid in design and periodic site inspection services and documentation.
- ▶ August – October 2020 – CBVRCE Glace Bay Elementary Parking Upgrades. Periodic site inspection services and documentation of construction, NS.
- ▶ CBVRCE Glace Bay High Accessible Parking Upgrades, NS. Usage of Civil 3D to aid in design and periodic site inspection services and documentation.
- ▶ WFN– Waycobah First Nation Water Main – Waycobah First Nation, NS. Full-time site inspection services and documentation during water main installation and service connections.

Allan will be carrying out civil engineering support services throughout the course of the project, including drafting and GIS system services as required.

Sarah Ensslin, M.Sc., P.Eng. – Process Engineer



Sarah is a Process Engineer with over 15 years of experience in wastewater treatment design. She is currently working on several wastewater treatment plant projects, ranging from preliminary design to under construction. She carefully considers the needs of stakeholders and the environment in her design projects.

Sarah worked as a project engineer for the water utility Severn Trent Water in Birmingham, UK, for four years after graduating from her Masters' program. Sarah's responsibilities include design of municipal, institutional, and industrial wastewater treatment systems.

Sarah has been involved in the following relevant projects:

- ▶ Lunenburg outfall and WWTP Predesign, Lunenburg, NS – Predesign of upgrades and expansion for an existing wastewater treatment plant, and extension of an existing outfall.
- ▶ Sydney Harbour West WWTP, Sydney, NS – Predesign and detailed design of new consolidated WWTP for a community that currently has three separate outfalls.
- ▶ Lunenburg WWTP Process Support, Lunenburg, NS – Process support for WWTP process, including Operations Manual, overflow monitoring, improved SCADA instrumentation, replacement of DAF sludge pumps, and relocation of macerator.
- ▶ Lunenburg WWTP Aeration, Lunenburg, NS – Detailed design and construction observation and administration of replacement aeration system for moving bed bioreactor.

Sarah will be examining the impacts on the existing wastewater treatment system related to the proposed development schemes as required.

Alex Wilson, M. Eng., P.Eng. – Senior Water Resources Engineer



Alex holds a M.Eng. in Civil Engineering (First Class Honours) from Imperial College, London, which included a year in the Hydraulic Engineering School of Grenoble, France. With 24-years of experience, he specializes in water resources management and computer modelling of river systems, stormwater and wastewater infrastructure.

Alex joined CBCL in April 2002, after having worked more than 4 years in France, Luxembourg, Senegal and Benin. Alex has experience in the project management of hydraulic and municipal projects, including planning, analysis and design projects. His experience in Atlantic Canada includes extensive analyses through computer models of stormwater management plans, floodline delineation, flood protection, low flow assessments, receiving water modelling and sanitary systems. Such projects include the Truro Flood Risk Study, the Sydney Tar Ponds, LaPlanche River Aboiteau Pre-Design Study, the Fales River Flood Study and Berm Design, the Meadowview Flood Study, the

Antigonish Rights River Floodplain Mapping, The HWY 104 South River Bridge Floodline delineation and many other bridge floodline delineations, including ice jam and scour analyses. The main computer modelling tools used are SWMM5, PCSWMM (for which advanced training was received), HEC-RAS, MIKE3, DELFT3D and OpenFOAM. Alex has also taught the hydraulics course for 3rd year Dalhousie Engineering Students and the HEC-RAS technical background and modelling approach to 4th year students, which gives him an additional technical background to the modelling experience gathered over the years. Alex has also been part of the review team for the new Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation (2019), has drafted the upcoming Nova Scotia Flood Line Mapping Specification and Guidance documents for the province, and is currently part of the Climate Change Working Group to update the Canadian Highways Bridge Design Code.

Alex will lead technical services with respect to stormwater management and hydraulics/hydrologic modelling.

Victoria Fernandez, M.Sc., P.Eng. – Water Resources Engineer



Victoria is a Water Resources Engineer with seventeen (17) years of experience in stormwater management and flooding studies. She holds M. Sc. degree in Civil and Environmental Engineering from Rutgers University, US. Her expertise includes the design of stormwater management infrastructure, low impact development (LID) in Atlantic Canada and well as flooding risks and mitigation assessments around Atlantic Canada and the Great Lakes. She has also conducted computer modelling of coastal hydrodynamic processes, sediment transport and wave climate, and designed coastal protection measures such as armour and floating breakwaters. Her experience also includes climate risks assessment.

Victoria will provide technical services with respect to stormwater management and hydraulics/hydrologic modelling.

Archie Thibault, PQS (F) – Professional Quantity Surveyor, Construction Estimator



Archie is a registered Professional Quantity Surveyor with the Canadian Institute of Quantity Surveyors who has 39 years of experience in construction estimating, procurement, and cost consulting. During his 26-year career as a pre-construction manager chief and senior estimator with an industry leading General Contractor; competitively bidding projects; and successfully tendering and managing subcontractor procurement for approximately 200 projects. These projects covered most construction categories, and contract formats.

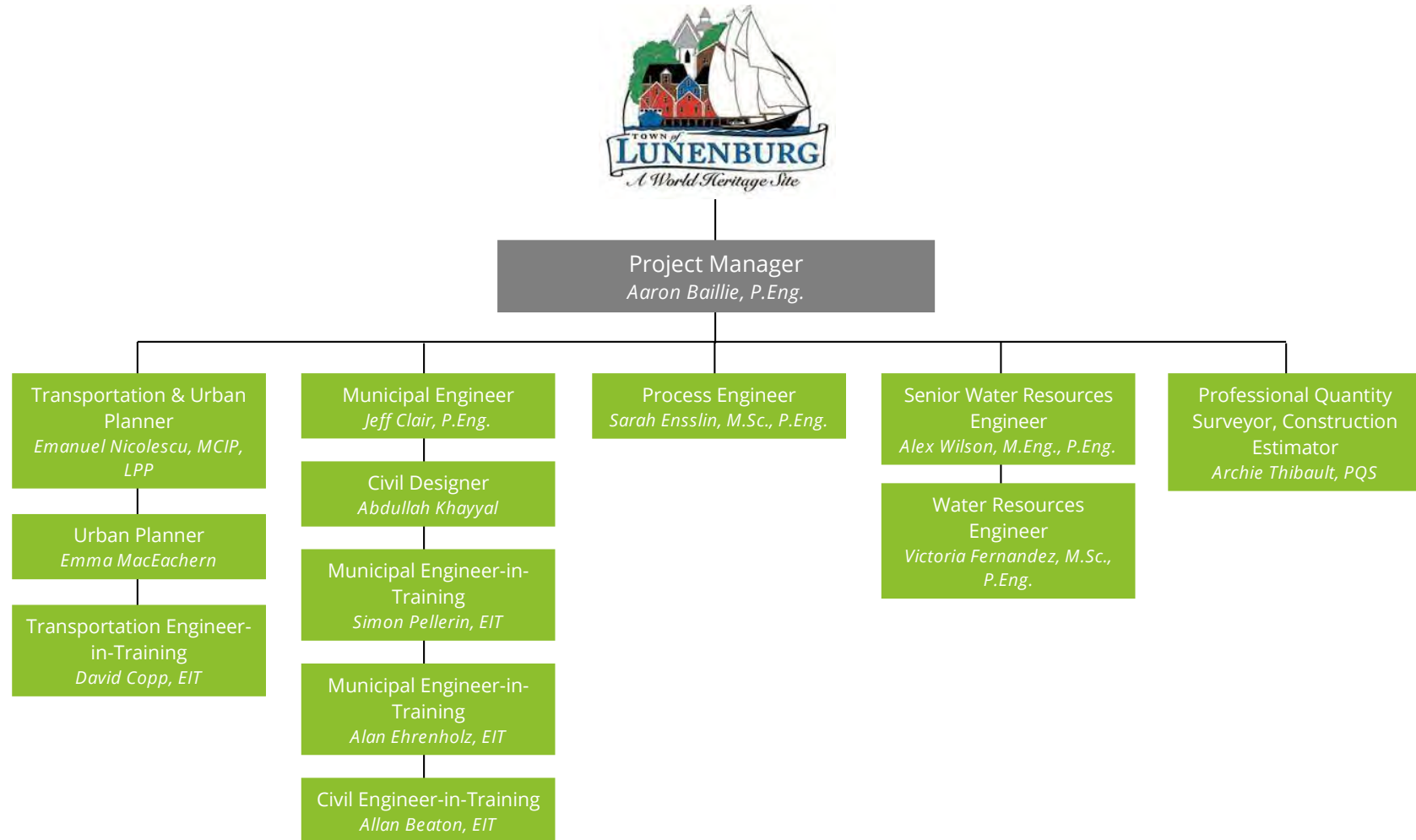
This experience provides CBCL Limited, with a unique blend of experience and expertise from both sides of a construction contract. Since joining CBCL in 2006 he has provided Quantity Surveying cost consulting services for a wide range of projects. Specifically, to this project, he has carried out Class A, B, C, D capital cost estimates for suburban land development and urban plans; including mass earthworks, lot grading, arterial, and suburban roads, roundabouts, transit routes complete with services, and public utilities.

Archie has been involved in the following relevant projects:

- ▶ Potlotek First Nation Water Treatment Plant, Potlotek, NS.
- ▶ Acadia First Nation Subdivision, Yarmouth, NS.
- ▶ Glooscap Landing Civil Work Development, Glooscap, NS.
- ▶ Whycomomagh Wastewater Treatment Plant, Whycomomagh, NS.
- ▶ Motherhouse House Lands Redevelopment, 247 Residential Units, Southwest Properties, Halifax NS.
- ▶ Repurposed South End Lands to Residential Development, 4 Phases, Halifax Port Authority, NS.

Archie will be carrying out cost estimation services throughout the course of the project as required.

3.2 Team Organization Chart



4 Relevant Project Experience

The following provides a detailed description of the three most relevant projects that CBCL has completed.



Project Name: Town of Lunenburg Water and Wastewater System Survey & GIS

Client: Town of Lunenburg

Completed: June 2022

Team Members:

Sarah Ensslin, M.Sc., P.Eng., Process Engineer
Amy Winchester, P.Eng., Asset Management
Sarah O'Rourke, C Tech, GIS Technologist
Alan Ehrenholz, EIT, Municipal Engineer

Reference:

Lisa Kendall, Municipal Engineer
Town of Lunenburg
Tel: 902-523-0518
Email: lkendall@townoflunenburg.ca

Project Description and Services Provided

In 2022, CBCL worked with the Town of Lunenburg to survey water and wastewater assets throughout the Town and develop a GIS database of these assets. This project involved surveying, inspecting, and photographing key structures that could be viewed from the surface (catch basins, manholes, gate valves and fire hydrants) and putting each of these into a GIS database. The database will be turned over to the Town for use by staff, especially in the Public Works department, by the end of June 2022. It is intended to be a

live database that the Town can update as changes are made to infrastructure or as new information becomes available. This database is a key step to allow Stormwater Master Planning to advance development in the Town in accordance with Project Lunenburg goals.

At the same time, CBCL worked with the Town to develop Level of Service and Asset Management Roadmap documents. The Level of Service document reports the assets and services the Town has and their existing assessed suitability. The Roadmap records the current and long-term goals of the Town related to improving their asset management practices.



Project Name: Potlotek First Nation – Subdivision Feasibility Study

Client: Potlotek First Nation

Completed: Ongoing

Team Members:

Darrin McLean, P.Eng.
Emanuel Nicolescu, MCIP, LPP
Alan MacAulay

Reference:

Crystal Nicholas, CEO
Potlotek, First Nation
Tel: (902) 535-3317
Email: cnicholas@potlotek.ca

Project Description and Services Provided

CBCL is finalizing a Subdivision Feasibility Study for Potlotek First Nation. The work was carried out in close partnership with the community and Indigenous Services Canada (ISC) to develop a workable design solution addressing the community's housing requirements. The scope of work involved an in-depth review of population growth trends since 2006 and forecasting population to the 2041 horizon year. Using both the On-Reserve and total Band growth rates, and based on a review of historical housing occupancy ratios, the Team developed several housing needs scenarios.

This analysis was supplemented by a Housing Adequacy Assessment using the National Occupancy Standards. The analysis resulted in a comprehension of the number of

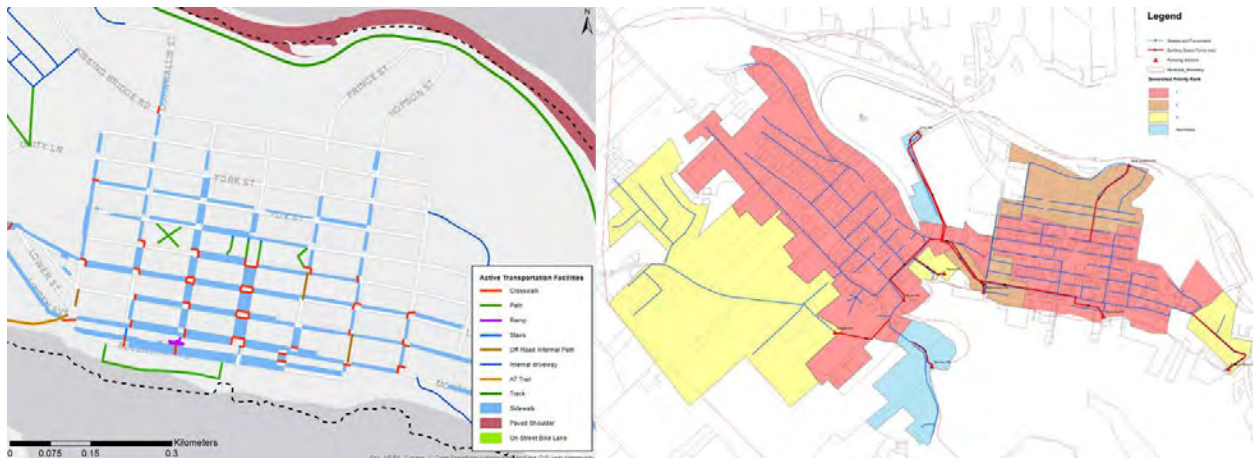
housing units in the community with a deficit or underutilization of usable bedrooms, and provided the Team with a robust forecast of the number of housing lots needed to accommodate new housing by type and size.

The study included an infill assessment component, whereby undeveloped but serviced lots in the community were evaluated for potential development and inclusion in the Rapid Housing program. The evaluation was carried out on the basis of the slope and viability of the lots in proximity to wetlands, water courses or the community's treatment plant.

The study culminated in the development of several subdivision design options to an enhanced level of detail providing Class D cost estimates and detailed quantity estimates.

We note that this study carried through following CBCL's successful submission of the Potlotek Land Use Plan, produced with UPLAND, in 2018. The purpose of the project was to provide the Potlotek First Nation with a resource document which establishes a clear path to achieve the priorities laid out in the Potlotek Integrated Community Plan. The Land Use Plan focused on six land use goals: Housing, Water Infrastructure, Senior Care, Economic Development, Cultural Practices and Nature and Resource Protection; with a high level of emphasis placed on the provision of potable drinking water and adequate housing.

The Land Use Plan reviewed population growth trends, both on and off-reserve, and forecasted future growth and housing needs. To understand the servicing needs for the proposed future land use, CBCL undertook a preliminary service design in which water, storm and sanitary systems were reviewed in terms of existing processing capacities. The Plan investigated the current usage of housing and future housing requirements, assessed the capacity of existing infrastructure for community growth, and provides recommendations for future land use designation, infrastructure upgrades, and housing options to accommodate the 25-year projected population at Potlotek First Nation. As part of this process CBCL and UPLAND facilitated two community visioning and engagement sessions which were used to garner input around past and current land use and ideas for future land use. The overall themes from the community consultation were summarized and served as priority goals for the Land Use Plan.



Project Name: Lunenburg Comprehensive Community Plan

Client: Town of Lunenburg

Completed: 2019

Team Members:

Aaron Baillie, P. Eng.
Emanuel Nicolescu, MCIP, LPP

Reference:

Steffen Käubler
UPLAND | Planning + Design
Tel: (902) 423-0649
Email: steffen@uplandstudio.ca

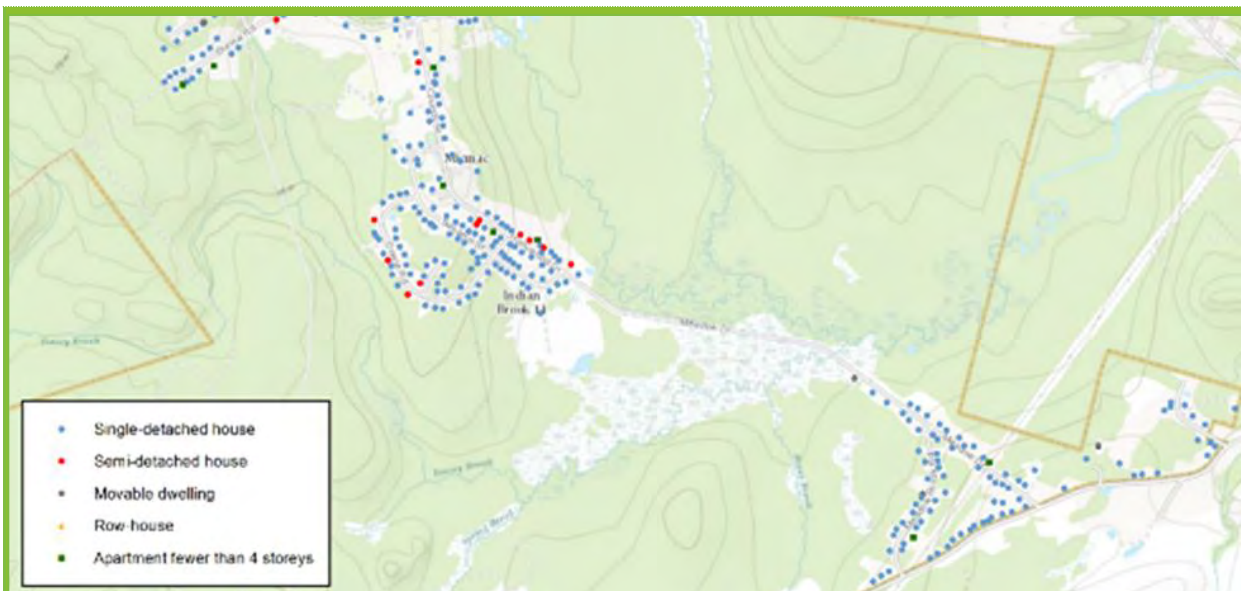
Project Description and Services Provided

As part of the UPLAND Team, CBCL provided consulting services in three key sectors: Transportation, Climate Change, and Servicing. The project entailed first developing a background understanding of the Town's previous planning context and community profile in terms of demographic trends and challenges. CBCL subsequently carried out a multi-modal conditions assessment, reviewing the Town's road network and transportation systems in terms of road classification, right-of-way width, active transportation facilities, parking, seasonal traffic and tour buses. Based on CBCL's Climate Change Adaptation Plan work for the Town, we were able to provide a robust review of historical and future flood risks to current Town assets, as well as to future development.

Through on a public consultation programme undertaken by UPLAND, with CBCL's participation, key focus areas were identified in terms of accessibility, safety, connectivity, and general improvements to the streetscape.

Lastly, CBCL provided an in-depth review of the Town's water and wastewater systems, treatment capacities, collection, and distribution systems. These were assessed under both existing and historical conditions, as well as in the context of growth areas identified around the Town, including in the Upper King Street Extension area. CBCL commented on the servicing constraints, as evidenced through conditions surveys of the Town's sewer pump stations, and a cursory review of the pipe networks.

The overall Comprehensive Community Plan was recognized by the Atlantic Planners Institute with the 2021 API Award for Planning Excellence.



Project Name: Sipekne'katik First Nation – Subdivision Feasibility and Environmental Assessment

Client: Sipekne'katik First Nation

Completed: 2019

Team Members:

Stephen Eisan, P. Eng.
Emanuel Nicolescu, MCIP, LPP
Rob Morrison, P.Eng.
Paul Young, P.Eng.

Reference:

Brian Dorey
Director of Operations
Sipekne'katik First Nation
Tel: (902) 758-2049
Email: briandorey@sipeknekatik.ca

Project Description and Services Provided

CBCL was contracted by the Sipekne'katik First nation to evaluate the feasibility of developing a new subdivision to meet their growing needs. The feasibility study was required by Indigenous Services Canada (ISC) to justify the development of the subdivision. The on-reserve population (approximately 1,300 people in 2018) has steadily grown in the last decade but housing development has been sporadic with the last significant housing development occurring in 2006. The study reviewed population growth trends both on and off-reserve and forecasted future growth and housing needs.

The water and sanitary systems were reviewed in terms of existing processing capacities. The feasibility study investigated the current usage of housing and future housing requirements, assessed the capacity of existing infrastructure for community growth, and provides recommendations and justification for subdivision development to provide a total number of serviced lots to accommodate the eight-year projected population at Sipekne'katik First Nation.

5 Approach & Methodology



Leveraging the diverse skillsets and project experience of our multi-disciplinary team of land use planners, transportation planners and engineers, municipal engineers, civil engineers and designers, professional quantity surveyors, and construction estimators, CBCL is uniquely positioned to provide the full range of services required to complete this project.

Planning for future site development and the respective parameters and constraints is inherently geographic. As such, we proposed carrying out this assignment upon a Geographic Information System (GIS) framework. This will allow us to compile numerous geographic datasets such as terrain, roads, water features and utility assets, as well as social datasets including buildings, land use, community assets and infrastructure. The GIS framework will allow us to organize the datasets on a visual platform, allowing complex analysis of the inter-related processes. Through this approach, we will also leverage the advantage of the Autodesk Inroadworks design package to bridge the gap between GIS and CAD design, thereby streamlining future design processes.



Figure 5-1: GIS Framework



Figure 5-2: InfraWorks Design Process

5.1 Work Plan

Our workflow is diagrammatically illustrated on Figure 5-3. Each task is described in subsequent sections and outlined in detail on Table 5-1.

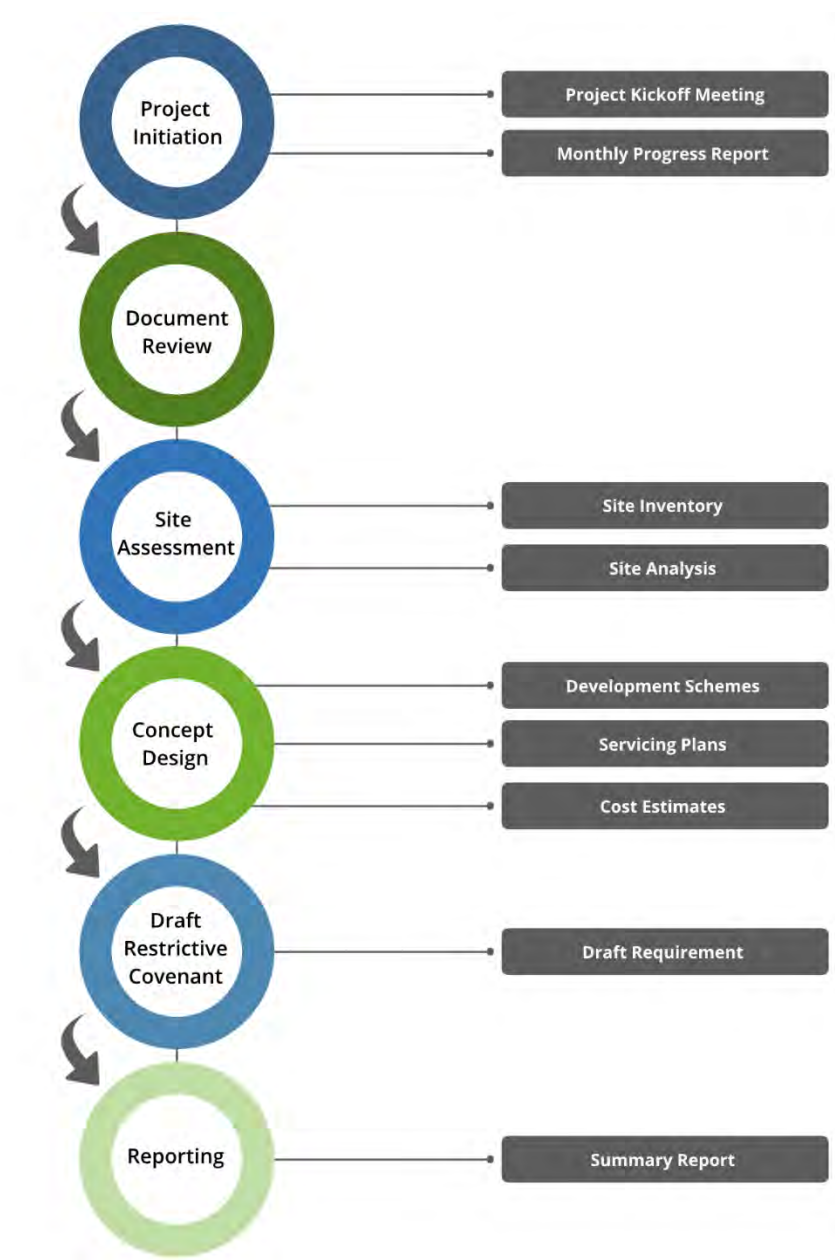


Figure 5-3: Work Plan

Table 5-1: Detailed Work Plan

Staff														Total Hours
	Aaron Baillie	Emanuel Nicolescu	Emma MacEachern	David Copp	Jeffrey Clair	Abdullah Khayyal	Simon Pellerin	Various	Sarah Ensslin	Alex Wilson	Victoria Fernandez	Archie Thibault	Clerical	
Role	Project Manager	Transportation / Urban Planning	Urban Planning / Supporting GIS	Synchro/InfraWorks	Water / Wastewater	Civil Design	Water / Wastewater	GIS/CAD/Civil Engineering	Wastewater Treatment Capacity Lead	Storm Water - Technical Lead	Storm Water Assessment	Cost Estimation	Administration	
Rates	\$225	\$145	\$95	\$90	\$150	\$130	\$100	\$90	\$155	\$200	\$150	\$200	\$80	
101 Project Management	14	8												22
Carry Out On-going Project Management Tasks	10													10
Conduct Initial Project Start Up Meeting	4	4												8
Prepare and Submit Monthly Progress Reports		4												4
102 Document Review		4	12											16
Review Relevant Literature		4	12											16
103 Site Assessment														
Prepare GIS/CAD Basemap		4	8											12
Prepare InfraWorks Model		4		16										20
Site Analysis		4	8	8										20
104 Concept Design	7	24	24	32	24	28	44	35	15	4	25	8		270
Development Concepts	3	16	24	24		15								82
Road Network & Road Cross-Section		8		8	4	5	4	5						34
Infrastructure Servicing Assessment & Plans	4				20		40	30	15	4	25			138
Cost Estimate						8						8		16
105 Draft Restrictive Covenant		4	8											12
Prepare Draft Documents		4	8											12
106 Reporting	4	8	16			5			5		5		4	47
Summary Report	4	8	16			5			5		5		4	47
Total Hours	14	48	60	32	24	33	44	35	20	4	30	8	4	367

5.2 Project Management

Our experience has shown that successful projects require a defined methodology, effective project control procedures, capable managers, thorough organization, and integration of the project team as well as good ongoing communication between the Project Manager (PM), Client, and project team members. Effective project administration and management procedures will be required during all aspects of the project.

5.2.1 Carry Out On-going Project Management Tasks

Our proposed Project Manager will be responsible for the overall coordination and delivery of the project as a whole. The Project Manager will provide the primary point of contact with the project stakeholders and will direct/advise/coordinate on an ongoing basis throughout the duration of the work. The PM will be responsible for the day-to-day requirements of the project and the coordination of project team members.

We will employ proven project management techniques throughout the execution of the work, including performance reporting and communications; risk management and mitigation; QA/QC; and cost and schedule control. Regular updates will be provided to the project stakeholders by the PM dedicated to the project.

5.2.2 Conduct Initial Project Start-Up Meeting

The first step in the process will be to hold a project start-up meeting with the Town of Lunenburg (the Town) to set a framework for the study that is consistent with the needs and expectations of the Town. A major risk to this undertaking is that our Team commences the work under an incomplete understanding of the objectives of this undertaking and the Town's expectations. Hence the need to meet with the Project Team as soon as possible following award. The initial kick-off and project start-up stage will therefore serve to:

- ▶ Confirm the scope and work plan proposed for this assignment and identify the key deliverables of the process.
- ▶ Present our Communication Plan for this undertaking.
- ▶ Present and confirm Project Management Plan and agree upon the key roles and responsibilities between our Team and the Town's Project Team.
- ▶ Conduct a walk-through of the focus properties to derive a direct understanding of the geographic constraints and development potential.

5.2.3 Prepare and Submit Monthly Progress Reports

CBCL will prepare and issue a written project progress report to the Town monthly. The reports will include written updates on the current status of scope items, as well as project schedule and budget and will generally include the following items:

- ▶ A description of tasks completed in the previous month and tasks to be worked on or completed next month.

- ▶ A review of the project schedule comparing actual progress to progress required by the project schedule. This will identify areas where CBCL is behind schedule and provide the methods to be used to meet the project schedule.
- ▶ A project budget variance report that will identify any potential cost overruns that require resolution.
- ▶ Identification of any work or input or decisions required by the Town, including anticipated timing of submissions to the Town and requested response dates.

5.2.4 Conduct On-Going Project Meetings

We expect that the project will require meetings with the project stakeholders at key milestones. We anticipate that in addition to the project start-up meeting, the following project meetings will be required:

- ▶ One working meeting to review the Site Analysis.
- ▶ One working meeting to discuss the Concept Design.
- ▶ One presentation to Town Staff summarizing the Concept Design, cost estimates and restrictive covenant.

We are available to conduct in-person meetings, but we maintain the ability to undertake all meetings and presentations using digital technology, including video conferencing and other platforms that allow multi-user access such as Microsoft Teams (or similar).

The Project Manager will prepare and issue a meeting agenda and other meeting information or materials in advance of each meeting. The Project Manager will also arrange for on-line meetings on the preferred platform. Discussions at each meeting will be documented by the Project Manager and meeting minutes outlining the key points of discussion as well as action items and responsible persons will be distributed to all project stakeholders within 48 hours of the meeting.

5.3 Document Review

The first step of this assignment will be to undertake a thorough document review to ensure that the project team develops an in-depth understanding of the development parameters surrounding the King Street Extension site. This will include collecting and reviewing relevant policy documents, specifications, and reports including but not limited to:

- ▶ Comprehensive Community Plan.
- ▶ Municipal Planning Strategy.
- ▶ Land Use Bylaw.
- ▶ Subdivision Bylaw.
- ▶ Subdivision Specifications.
- ▶ World Heritage Site Outstanding Universal Values.
- ▶ National Historic Site Statement of Significance.
- ▶ 2021 Census Household Income data.
- ▶ National Building Code of Canada – Fifteenth Edition (2020).

5.4 Site Assessment

5.4.1 Site Inventory

To inform our understanding of the site and adjacent area, we will assemble a site inventory of physical, biological, and cultural attributes. This exercise will produce mapped data on the existing conditions of the site and its context. Our previous work experience with the Town will allow us to readily assemble the data required to compile a detailed site inventory. Mapped attributes include but are not limited to the following:

Physical Attributes	Natural Attributes	Cultural Attributes
Elevation	Vegetation	Land Use
Slope		Open Space
Hydrology		Easements
Landforms		Zoning
Soils		Design Guidelines
		Property Lines
		Transportation Infrastructure
		Municipal Services Infrastructure
		View Corridors

This task will culminate in the preparation of GIS and AutoCAD basemaps, and the creation of a three-dimensional Infravorks model of the subject area.

5.4.2 Site Analysis

Once the site inventory has been compiled we will carry out a site analysis to assess the development properties' opportunities and constraints. Using the mapped data produced from the site inventory, we will seek to identify any attributes, on- or off-site, that impact the site's development suitability and/or influence the spatial organization of the proposed development layouts. This assessment will seek to identify any development constraints which may fall into several categories including:

- ▶ Physiographic Barriers (ex. steep slopes).
- ▶ Health or Safety Hazards (ex. flood hazards).
- ▶ Ecological Features (ex. wetlands).
- ▶ Natural Resources (ex. scenic views).
- ▶ Historic Resources (ex. archaeological sites).
- ▶ Legal Restrictions (ex. property boundaries and zoning).

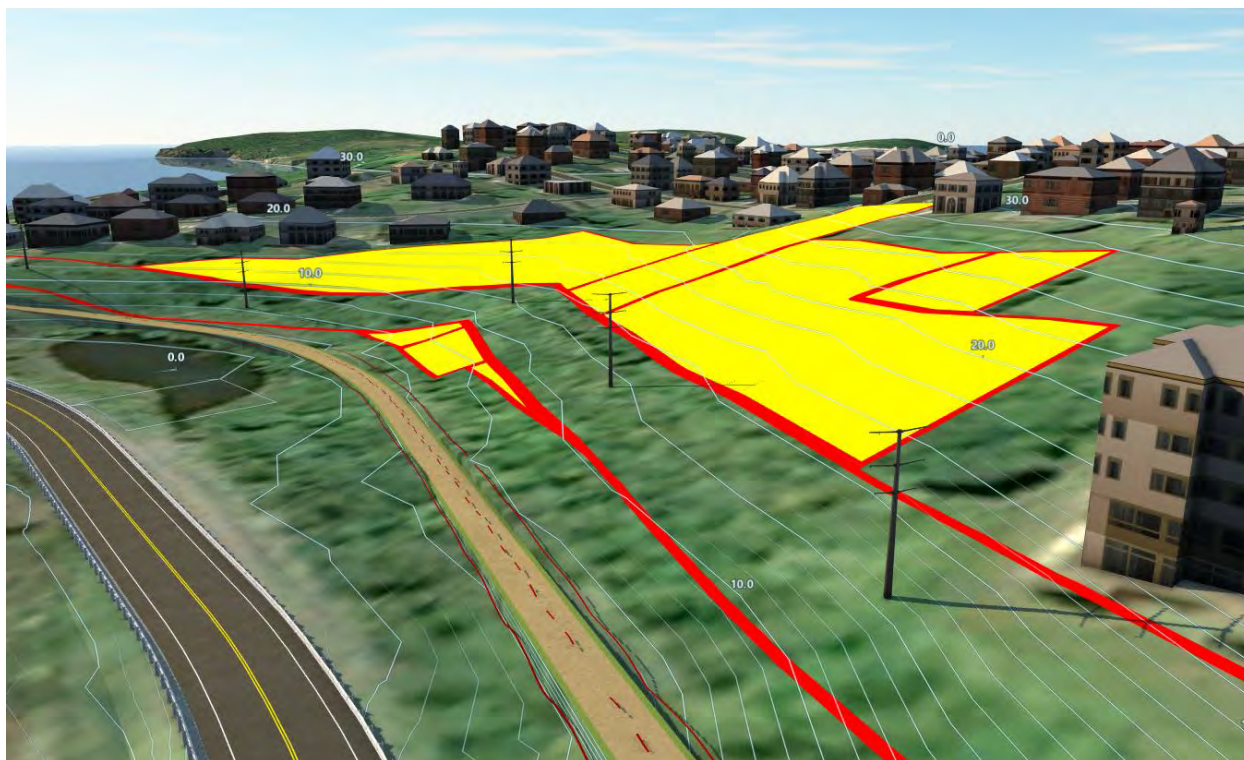


Figure 5-4: Site Inventory and Analysis

5.5 Concept Design

Based on the opportunities and constraints identified through the preceding tasks, we will begin the conceptual design of the four development schemes. As stated in the RFP, to meet the project objectives the proposed designs will include the following provisions:

Mixed-use residential development consistent with the Old Town New Town 2 Form Zone, Medium Density Residential Use Zone, and Lot Zones 3	Mixed-use residential development consistent with the Old Town New Town 2 Form Zone, High Density Residential Use Zone, and Lot Zones 3
▶ Implement a public street system incorporating existing right-of-way and complete street and barrier-free design principles. ▶ Provide pedestrian connectivity through a network of accessible trails and pathways. ▶ Demonstrate the feasibility of sustainable and practical extension of existing services. ▶ Dedicate an area equal to 10% of the land mass for open space pursuant to	▶ Implement a driveway incorporating complete street and barrier-free design principles. ▶ Provide pedestrian connectivity through a network of accessible trails and pathways in keeping with barrier-free design principles. ▶ Dedicate an area equal to 10% of the land mass for open space pursuant to the Subdivision By-law and in keeping with barrier-free design principles.

the Subdivision By-law and in keeping with barrier-free design principles. ▶ Demonstrate the density and number of dwellings, type of dwellings, and the percentage and number of affordable and accessible dwelling units. ▶ Maintain views down King Street Extension through to the Back Harbour.	▶ Demonstrate the density and number of dwellings, type of dwellings, and the percentage and number of affordable and accessible dwelling units. ▶ Maintain views down King Street Extension through to the Back Harbour.
--	--

5.5.1 Development Concepts

The conceptual design is an iterative process that entails spatial organization of the basic components of the project on the site. This task will follow the general process outlined below:

- 1 Delineate areas devoted to open space, stormwater management, and/or other important site functions.
- 2 Delineate the remaining area into locations that are suitable for development.
- 3 Delineate the space required for primary site circulation including streets and sidewalks.
- 4 Delineate the lots into development volumes or envelopes, ensuring the dimensions can accommodate the building footprint and space required for associated lot requirements (ex. pedestrian access). Calculate gross developable areas and derive number of residential units, or commercial areas.
- 5 Identify secondary site circulation including trails, paths, and walkways.

Once the spatial framework of the site has been established for each of the development scenarios, we will lay out lot configurations, building footprints and building massing.

Based on the building massing resulting from the use, form and lot zone requirements of each development scheme, we will extract possible unit and commercial area configurations. This will provide, for each scheme, a total number of achievable housing units, and ancillary mixed-use spaces. A review of 2021 Census data for the Dissemination Areas encompassing the Upper King Street lands and surrounding areas, will provide the basis for an estimate of affordability threshold. Given the requirements and aspirations of the Comprehensive Community Plan, we will subsequently provide estimates of the number of affordable housing units achievable in each development scheme.

In parallel, through a review of the updated Building Code, we will comment on the number of units and spaces to be designated and designed as accessible, with a corresponding discussion of the design features that should be included in future development applications for the Upper King Street lands.

5.5.2 Road Network & Road Cross-Section

We understand the importance of creating a pedestrian-friendly and accessible active transportation system. Each development scheme will have a specific requirement in terms of access and connectivity to the Town's mobility network. Depending on the specific lot layouts, we will therefore develop appropriate access options to ensure the Upper King Street lands are a seamless extension of the Town's existing built environment.

To that end, we will develop road section options that are consistent with the nature of the development and demonstrate a complete streets approach, accommodating users of all abilities and ages (see Figure 5-5).

We will identify the standard or guideline (i.e., Geometric Design Guide for Canadian Roads, TIR Highway Design Guideline, Municipal Standard, etc.) appropriate for the road layouts. In addition, we will provide an order of magnitude cost estimate for the proposed road network.



Figure 5-5: Complete Streets Approach

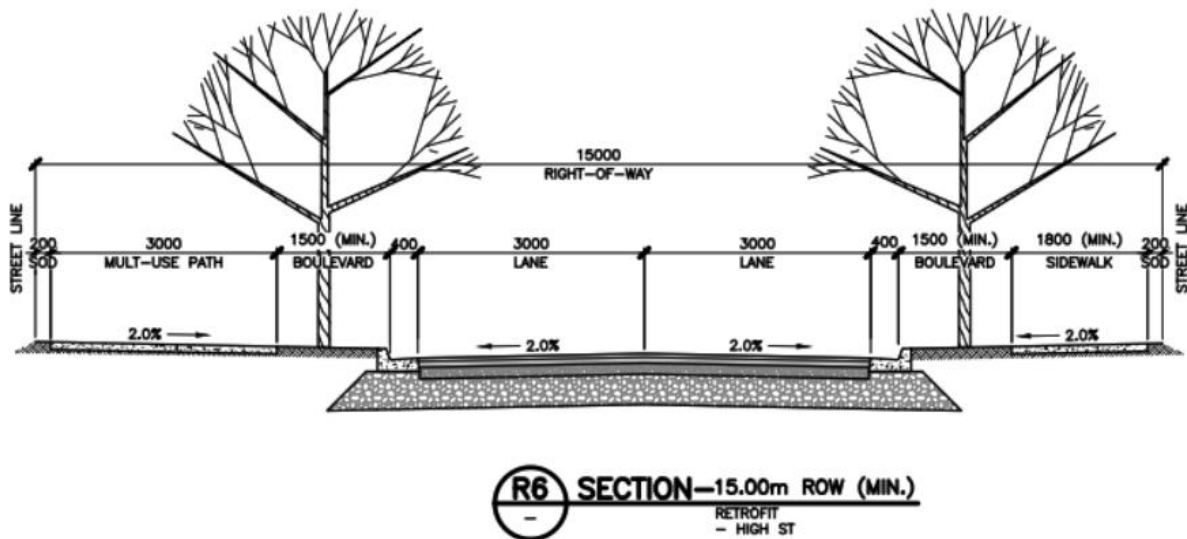


Figure 5-6: Complete Streets Road Sections

5.5.3 Infrastructure Servicing Assessment

Following the establishment of site layouts, we will begin our assessment of the infrastructure required to adequately service future development. We will conduct the infrastructure service assessment incorporating the following:

- ▶ **Standards and Regulations** – Our assessment will be conducted using all applicable federal, provincial, and municipal guidelines and standards including, but not limited to, Town of Lunenburg Municipal Specifications, Atlantic Canada Guidelines for the Supply, Treatment, Storage and Operation of Drinking Water Supply systems, Environment Canada Atlantic Canada Wastewater Guidelines Manual, etc.
- ▶ **Constraints and Limitations** – For each component, constraints and limitations will be outlined and alternative solutions presented where viable. Staging of the development plan based on the level of confidence will be considered as well and if elements and we will identify elements to be sacrificed throughout the stages of growth.
- ▶ **Cost Estimates** – A general cost estimate for the overall development of transportation and utility infrastructure will be provided.

The infrastructure servicing assessment process will involve a high-level evaluation of the lands and services in their current condition and a preliminary assessment of the upgrades required to accommodate the proposed development schemes. To understand the servicing needs of proposed developments we will review the water, storm, and sanitary service capacity of the community as well as the requirements for servicing the development schemes. We will investigate servicing options that will incorporate the considerations to promote an economically and environmentally responsible servicing strategy for future growth and we will consider the servicing aspects listed below:

Water Servicing Assessment– We will develop estimates of domestic and fire flow demands in accordance with applicable guidelines based on population estimates for the development schemes. We will review the servicing capacity of the existing water

supply and distribution systems in relation to current and projected usage for each scheme. A water distribution plan indicating infrastructure and estimated pipe sizes for each servicing concept option will be developed.



Figure 5-7: Water Services

- **Wastewater Servicing Assessment** – We will provide an estimate of the anticipated sewage generation rates based on the most recent population projections developed as part of the Comprehensive Community Plan, and the densities calculated for each development scheme. Our base assumption will be the provision of connection to the Town sewer via King Street. Finally, we will identify any limitations, potential upgrades, studies, or any other activity required to ensure the appropriate wastewater treatment is achieved for the proposed development schemes.

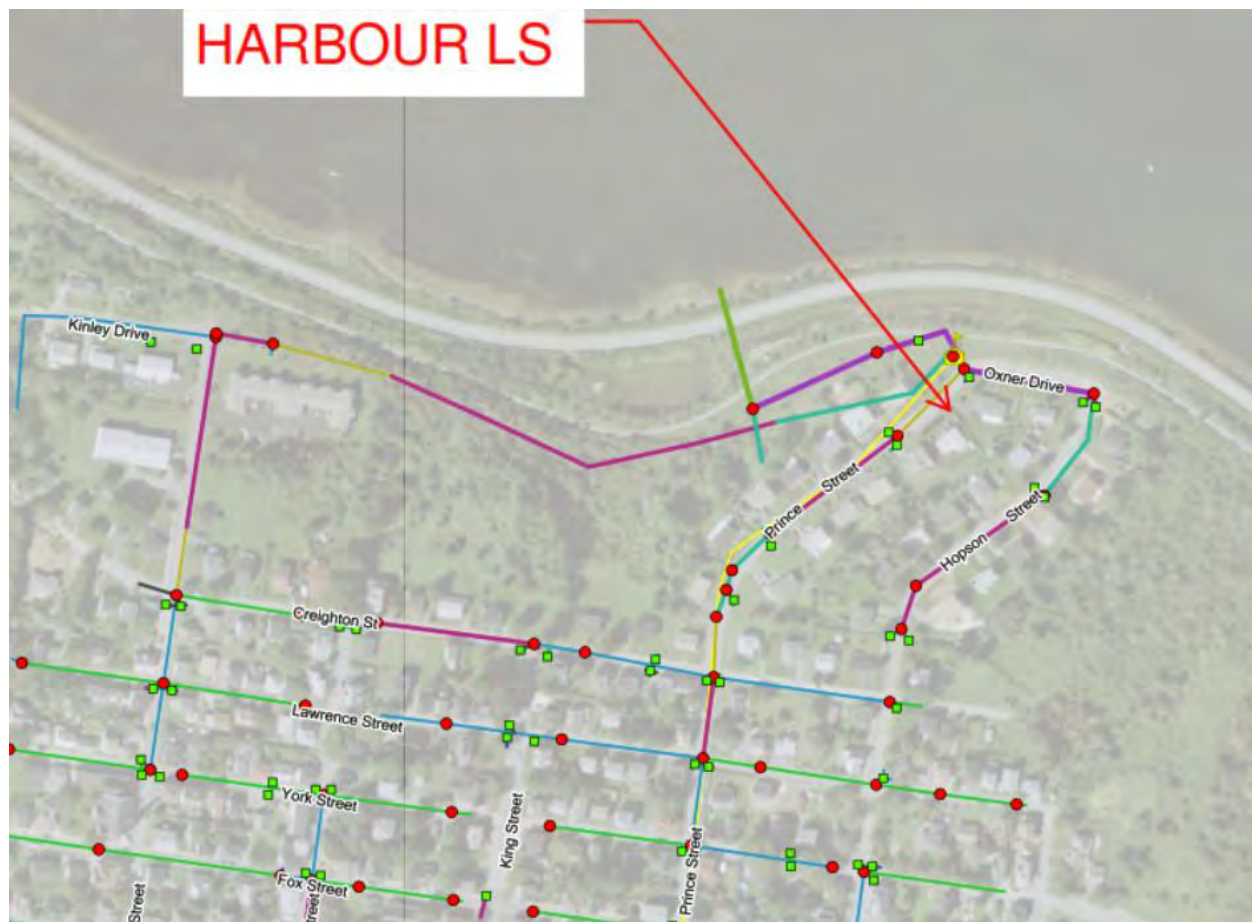
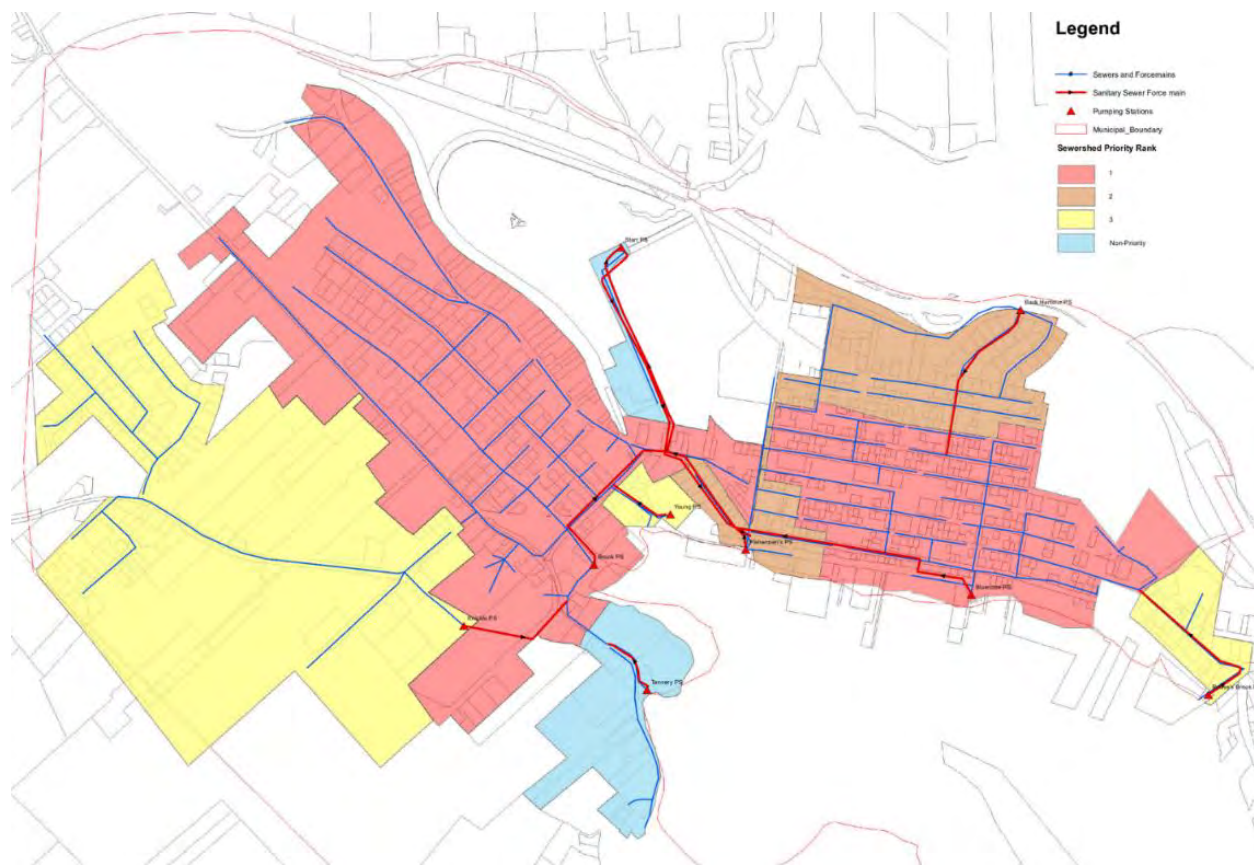


Figure 5-8: Sewer Map

► **Storm Water Assessment** – CBCL will prepare a drainage plan, including treatment requirements for the development schemes, based on the near- and long-term phases. The drainage plan will include methods of stormwater control prior to discharge to a drainage path; storm sewer calculations for the 1 in 10 year and 1 in 100 Year Return Periods; rainfall data from Environment and Climate Change Canada, design rainfall events, runoff coefficients and watershed delineation. The data will be used to estimate the design flows, flow depths in ditches and swales, pipes and culverts. **As Value Added** we will identify areas of potential flooding and provide mitigation options. Any limitations related to the existing infrastructure drainage capacity for the proposed subdivision will be identified along with the necessary mitigation/upgrades and costs. We note that, as part of our assessment of the Town's wastewater collection system in 2018, and as we outlined in the Comprehensive Community Plan, the Upper King Street sewershed was considered in need of priority attention, particularly due to Inflow and Infiltration issues and the conditions of pump stations. The condition of these facilities will be confirmed, along with their ability to accommodate the effluent of development according to each scheme.



The concept design phase will culminate in four development schemes that reinforce the Town of Lunenburg's vision and planning policy, corresponding servicing plans and general cost analysis. For each development scheme, the concept design will be produced through a combination of Civil 3D drawings and Infraworks 3D environments.

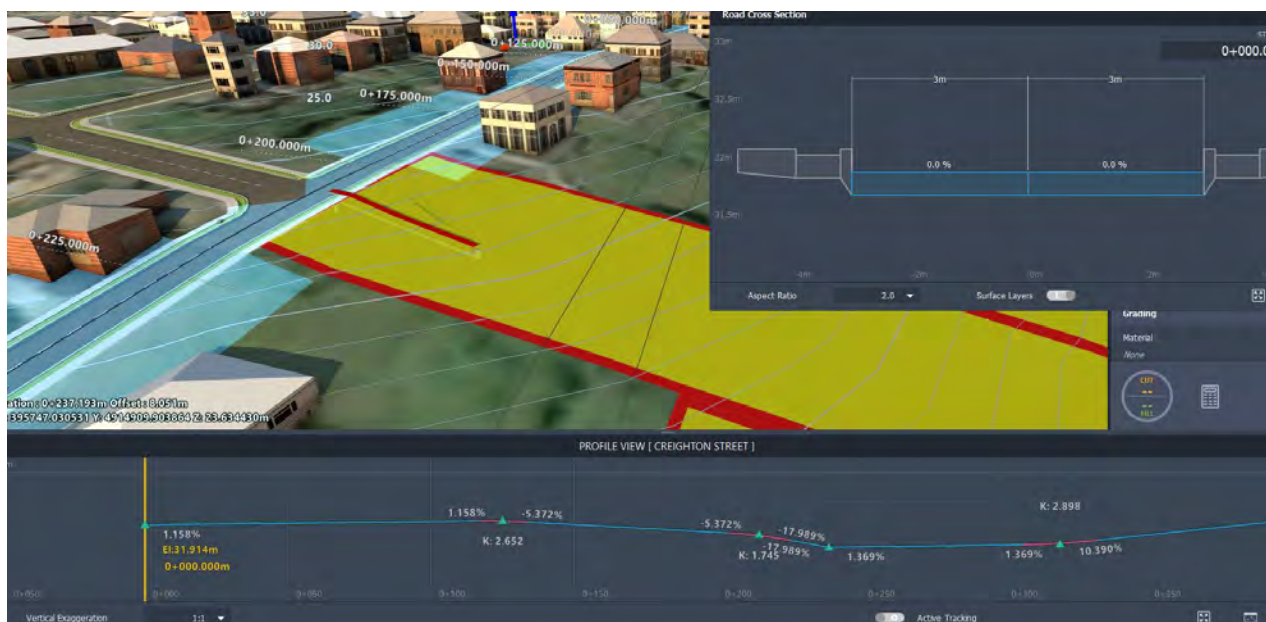


Figure 5-10: InRoads Concept Design

5.6 Draft Restrictive Covenant

To ensure the future development of the Upper King Street Extension site fulfills the proposed development schemes as presented, our planning team will explore possible means of ensuring adherence from prospective purchasers. Upon selecting the most suitable approach, our team will provide a draft document detailing obligations binding on any future buyer of the property for each of the four (4) proposed development schemes.

5.7 Summary Report

We will provide the Town with a summary report to provide context for each of the proposed development scheme concepts. The summary report will include:

- ▶ A brief narrative describing the concept plan for each development scheme.
- ▶ Typical road cross-section demonstrating a complete streets approach.
- ▶ A brief narrative describing the proposed servicing plan for each development scheme;
- ▶ A general financial cost analysis for each development scheme.
- ▶ A draft enforceable agreement limiting how a prospective purchaser can develop the property and requiring them to fulfill the development scheme as presented.

6 Project Schedule

The following presents an initial estimate of the timeline required to complete the work outlined above. We expect this schedule to change in response to new information, and as requirements are confirmed with Town staff upon project initiation.



PROJECT SCHEDULE
UPPER KING STREET EXTENSION DEVELOPMENT - TOWN OF LUNENBURG

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14
	18/Jul/22	25/Jul/22	1/Aug/22	8/Aug/22	15/Aug/22	22/Aug/22	29/Aug/22	5/Sep/22	12/Sep/22	19/Sep/22	26/Sep/22	3/Oct/22	10/Oct/22	17/Oct/22
101 Project Management														
Carry Out On-going Project Management Tasks														
Conduct Initial Project Start Up Meeting	◆													
Prepare and Submit Monthly Progress Reports														
102 Document Review														
Review Relevant Literature														
103 Site Assessment														
Compile Relevant Data														
Prepare GIS/CAD Basemap														
Prepare InfraWorks Model														
Site Analysis														
104 Concept Design														
Development Concepts														
Road Network & Road Cross-Section														
Infrastructure Servicing Assessment & Plans														
Cost Estimate														
105 Draft Restrictive Covenant														
Prepare Draft Documents														
106 Reporting														
Summary Report														

Legend

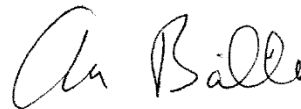
- Client Review
- Deliverable
- Milestone

7 Price Proposal

For a description of the proposed fees and expenses for this assignment, please refer to the following table.



Prepared by:
Emanuel Nicolescu, MCIP, LPP
Urban and Transportation Planner



Reviewed by:
Aaron Baillie, P.Eng.
Manager, Municipal Engineering

This document was prepared for the party indicated herein. The material and information in the document reflects CBCL Limited's opinion and best judgment based on the information available at the time of preparation. Any use of this document or reliance on its content by third parties is the responsibility of the third party. CBCL Limited accepts no responsibility for any damages suffered as a result of third party use of this document.



DETAILED WORK BREAKDOWN STRUCTURE
UPPER KING STREET EXTENSION DEVELOPMENT - TOWN OF LUNENBURG

Staff														Total Hours	Fees & Expenses					
	Aaron Baillie	Emanuel Niculescu	Emma MacEachern	David Copp	Jeffrey Clair	Abdullah Khayyal	Simon Pellerin	Various	Sarah Ensslin	Alex Wilson	Victoria Fernandez	Archie Thibault	Clerical		Total Fees	6% Markup on Labour	Travel Expenses	Direct Expenses	Total Expenses	TASK TOTAL
Role	Project Manager	Transportation / Urban Planning	Urban Planning / Supporting GIS	Synchro/InfraWorks	Water / Wastewater	Civil Design	Water / Wastewater	GIS/CAD/Civil Engineering	Wastewater Treatment Capacity Lead	Storm Water - Technical Lead	Storm Water Assessment	Cost Estimation	Administration							
Rates	\$225	\$145	\$95	\$90	\$150	\$130	\$100	\$90	\$155	\$200	\$150	\$200	\$80							
101 Project Management	14	8												22	\$4,310	\$259	\$100		\$359	\$4,669
Carry Out On-going Project Management Tasks	10													10	\$2,250	\$135			\$135	\$2,385
Conduct Initial Project Start Up Meeting	4	4												8	\$1,480	\$89	\$100		\$189	\$1,669
Prepare and Submit Monthly Progress Reports		4												4	\$580	\$35			\$35	\$615
102 Document Review		4	12											16	\$1,720	\$103			\$103	\$1,823
Review Relevant Literature		4	12											16	\$1,720	\$103			\$103	\$1,823
103 Site Assessment																				\$5,745
Prepare GIS/CAD Basemap		4	8											12	\$1,340	\$80			\$80	\$1,420
Prepare InfraWorks Model		4		16										20	\$2,020	\$121			\$121	\$2,141
Site Analysis		4	8	8										20	\$2,060	\$124			\$124	\$2,184
104 Concept Design	7	24	24	32	24	28	44	35	15	4	25	8		270	\$33,480	\$2,009			\$2,009	\$35,489
Development Concepts	3	16	24	24		15								82	\$9,385	\$563			\$563	\$9,948
Road Network & Road Cross-Section		8		8	4	5	4	5						34	\$3,980	\$239			\$239	\$4,219
Infrastructure Servicing Assessment & Plans	4				20		40	30	15	4	25			138	\$17,475	\$1,049			\$1,049	\$18,524
Cost Estimate						8						8		16	\$2,640	\$158			\$158	\$2,798
105 Draft Restrictive Covenant		4	8											12	\$1,340	\$80			\$80	\$1,420
Prepare Draft Documents		4	8											12	\$1,340	\$80			\$80	\$1,420
106 Reporting	4	8	16			5			5		5		4	47	\$6,075	\$608			\$608	\$6,683
Summary Report	4	8	16			5			5		5		4	47	\$6,075	\$608			\$608	\$6,683
Total Hours	14	48	60	32	24	33	44	35	20	4	30	8	4	367	46,925	3,059				
	4%	13%	16%	9%	7%	9%	12%	10%	5%	1%	8%	2%	1%	-						
Total Fees (\$)	3,150	6,960	5,700	2,880	3,600	4,290	4,400	3,150	3,100	800	4,500	1,600	320	-		\$362	\$100		\$3,159	\$55,829

101	Project Management	\$4,669
102	Document Review	\$1,823
103	Site Assessment	\$5,745
104	Concept Design	\$35,489
105	Draft Restrictive Covenant	\$1,420
106	Reporting	\$6,683
	TOTAL	\$55,829

APPENDIX A

Proposal Form

3.0 PROPOSAL FORM

NAME OF PROPONENT: CBCL Limited

Do not include HST in the Amount of Proposal. All of the below pricing is to be in Canadian Dollars.

Amount of Proposal	\$ <u>55,829</u>
HST.....	\$ <u>8,374.35</u>
Total.....	\$ <u>64,203.35</u>

Please attach the following additional information:

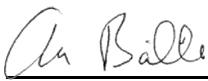
- Start and end time required to complete the work.
- Two relevant work references and contact phone numbers.

Mailing Address 1505 Barrington Street, Suite 901

Halifax, NS B3J 3K5

Phone Number 902-421-7241

Email Address aaronb@cbcl.ca

Signature 

Print Name & Title Aaron Baillie, P.Eng. - Manager, Municipal Engineering

Date June 30, 2022

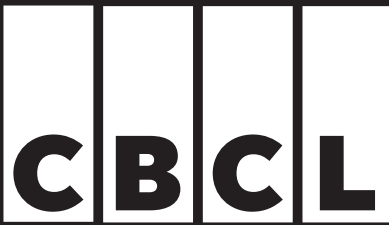
Witness 

Date June 30, 2022

Details of Proposal – please attach your submission details as required in this RFP.

APPENDIX B

Corporate Information



Solutions today | Tomorrow **IN** mind

As an employee-owned firm, CBCL is committed to creating a positive and lasting impact on people and our planet by providing world-class multidisciplinary engineering, geotechnical, and environmental consulting services.

CBCL.ca

INnovative

Our teams deliver more than 1,500 projects a year in multiple sectors, including:

Bridges
Buildings
Climate Resilience
Coastal
Environmental
Geotechnical
Industrial
Municipal
Ports & Marine
Sustainability
Transportation
Water

Since 1955, CBCL has focused on making meaningful global contributions. With experience in over 100 countries, our multi-talented team creates innovative solutions for our clients that positively shape tomorrow. We have 12 offices in the provinces of Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland Labrador, and Ontario. Our diverse team of over 400 employees is committed to providing technical excellence and exceptional service.

INvested

We're committed to affecting positive change in our communities. Our Atlantic Canadian roots keep us accountable, dependable, and respectful. We focus on doing what's right, not what's easy. We define corporate social responsibility by how we treat our employees, how our business activities affect the larger environment, how our organization and employees contribute to the communities we live in, and how our values control the governance of our privately held company.

We pursue solutions that benefit the communities where we work and live. As healthy communities need a healthy environment to thrive, sustainability is always a priority. We're committed to the integration of social, economic, and environmental concerns in all aspects of our operation. We strive to develop and implement practical engineering solutions that respect the current social and environmental impacts, as well as future implications of our designs.

We are committed to being a company that values and promotes diversity and inclusion. This commitment strengthens us by engaging and empowering individuals with unique backgrounds. Through a variety of new initiatives, we continue to further establish a diverse and inclusive environment where all employees can thrive. We strongly believe diversity and inclusion allows us to provide exceptional consulting services to our clients and contributes to our mutual success.

Our Mission is thoughtful...
to provide world-class engineering and environmental services that are valued by our clients, contribute to our mutual success, and positively impact the environment and communities we serve.

Our Vision is strong...
to grow by expanding our range of services and locations, retain our strong collaborative employee-owned culture, and offer exciting career opportunities through impactful, and sustainable projects.

Our Purpose is clear...
to create a positive and lasting impact on people and our planet.





Letter of Good Standing

Certificate of Recognition Program

Member ID

CBCLC000

tel 902 468-6696

35 MacDonald Ave.

Member Type

N

fax 902 468-8843

Dartmouth N.S. Canada

Certificate No.

50613

toll free ns 1-800-971-3888

B3B 1C6

web constructionsafetyns.ca

Issued to:

CBCL LIMITED

1505 BARRINGTON ST.

HALIFAX, NS

B3J 2R7

Size:

Standard – 20+ Persons Employed

Based on active participation in the Certificate of Recognition Program,
Construction Safety Nova Scotia hereby issues a letter of good standing:

2021/10/21

2022/09/28

Date of Issue

Expiry Date

This letter of good standing is issued to a firm actively participating in
Construction Safety Nova Scotia programs and whose current standing falls
into the category noted below:

Certificate of Recognition ☒

see reverse for category definitions.

COR Pending ☐

Conditions:

Christina MacDonald

Construction Safety Nova Scotia Representative



Clearance Letter

**CBCL LIMITED
MILES MACINNES
1505 BARRINGTON ST, SUITE 901
PO BOX 606
HALIFAX, NS B3J 2R7**

Date of Issue: June 15, 2022

Account Holder:
CBCL LIMITED
BN: 100849066

This letter confirms that **CBCL LIMITED** is registered with the WCB Nova Scotia and is in good standing. It is valid until **September 30, 2022**.

Sincerely,

WCB Nova Scotia

APPENDIX C

Curricula Vitae



Aaron BAILLIE

P.ENG., MANAGER MUNICIPAL ENGINEER



AREAS OF SPECIALTY

Project Management, Water Distribution, Wastewater Collection & Pumping, Water and Wastewater Treatment, Detail Design, Construction Administration, and Commissioning

EDUCATION

2000 B.Eng. Biological Engineering (Environmental), Technical University of Nova Scotia
1998 B.Sc.H, Agricultural Mechanization, Nova Scotia Agricultural College

AWARDS

2014 - New Victoria Mine Water Treatment Plant won the Tree of Life award at the Association of Consulting Engineering Companies of Canada – My role was Lead Designer and Process Design Engineer.

MEMBERSHIPS

APENS – Since 2000
Consulting Engineers of Nova Scotia - Director

EXPERIENCE

Mr. Baillie is a registered professional engineer with twenty one (21) years of experience in the design development, planning, project management, detail design, tendering, procurement, construction administration, and cost estimating of water and wastewater infrastructure projects. The following is a partial list of recent projects of which Mr. Baillie has managed and/or designed. Mr. Baillie's typical responsibilities include project management, preliminary and detail design, cost control, scheduling, procurement, construction administration and commissioning.

SITE DEVELOPMENT AND SERVICES

- Lead the site civil component of the Turks and Caicos Port Authority south dock project. This included site grading, water supply, wastewater collection, and stormwater management. Provided oversight to the design team and provided QA/QC on the final design.
- Goosecap Landing – A commercial development for a first nation community on NS. I was the project manager and design lead. The project included extending water and sewer services by an adjacent community, street design, roundabout design, site grading, and parking lot design.
- Annapolis Valley First Nation is planning an expansion to the community which included street design, environmental permitting, and sewer and water extensions.
- Sobeys – municipal water service was extended to the site. Investigated options to replace existing lake water supply and fire pump system with the municipal water supply. Resulted in modifications to the existing sprinkler system to allow for the fire pump to be removed and the design of a meter chamber and site service extensions.
- Wallace Hills is a First Nations development in Halifax NS that will be a future residential and commercial development. The development is outside the service boundary and as such I lead the review of servicing options which included wells, onsite sewer treatment and extensions of water and sewer services. We also provide transportation planning for the site.

MUNICIPAL WATER SUPPLY AND TREATMENT

- Completed various watermain and street renewal projects for the community of Parrsboro. The projects included water service extensions to unserved areas, replacement of existing water and sewer services, and replacement of street surface.

- Review of existing water treatment and distribution system servicing a Parks Canada campground with recommendation to improve public health and operational control.
- Design lead for process improvement to the Indian Brook First Nations greensand water treatment system.
- Process lead for water and wastewater infrastructure for the Town of Wabush.
- Design lead for new booster station with fire pump to services the community of Pennywell in Saint John's.
- Project Manager for the well field upgrades to satisfy the NS Groundwater Treatment Standard. This work including raising well casing above grade, remote monitoring of the well field and reservoir for automatic shut off and notification in the event of chlorine failure, and trending of critical process values such as flows, chlorine residuals, and turbidity.
- Project Manager and lead process design engineer for the Town of Shelburne WTP. This project included the design of a new 2.45 MLD flocculation, DAF, and filtration treatment train. Auxiliary systems included stand by power generation, residual wastewater treatment, chloramines disinfection, a main plant PLC and SCADA system.
- Project Manager and lead process design engineer for the Town of Mahone Bay WTP. This project included the construction a 100% redundant 1 MLD membrane treatment plant with pre-treatment. Auxiliary system included process chemical pumping systems, stand by power, and SCADA system.
- Lead design engineer for the Town of Canso WTP. This project included the construction of a new DAF treatment process, residual management system, chemical handling systems, stand-by power, and SCADA system.
- Conducted a treatability assessment of the Shoreham Village groundwater supply to determine if the existing treatment equipment is acceptable due to complaints over coloured water. The study resulted in upgrades for disinfection and iron and manganese removal.
- Lead process engineer in the pre-design of municipal water treatment plants for the Town of Mahone Bay and the Town of Canso. Responsibilities included raw water quality analysis and bench scale treatability testing, watershed hydrology (i.e., reservoir yield), plant siting, distribution system hydraulics, lifecycle cost analyses, preliminary plant design and pre-design cost estimate. Innovative treatment technologies such as membranes were also investigated for their applicability in each case.
- Assessment of Alternative Water Treatment Technologies for 5 Wing Goose Bay. Responsibilities included conducting bench scale treatability testing, researching alternative treatment methods, review of historic hydrogeological reports and mapping, preparation of report, which included advantages, disadvantages, capital costs, and operating costs for all option.

MUNICIPAL WASTEWATER COLLECTION, TREATMENT AND DISPOSAL

- Evaluated rehabilitation vs replacement of sewer pipes in the Town of Middleton. The investigation identified that CIPP rehabilitation was the most economical. Tender documents were developed and the rehabilitation is schedule to be completed in spring 2020.
- Rehabilitation of the 100 year old NW Truck Sewer in Halifax
- Design of onsite sewage treatment systems for various first nation building, schools and public building throughout Atlantic Canada.
- Review of existing wastewater treatment servicing a Parks Canada campground and made recommendation to replace the system.
- Design of wastewater treatment system to service a hospital in rural Nova Scotia.
- Project Manager for wastewater collection and treatment option study for the Town of Parrsboro.
- Design engineer for preliminary design of upgrades to an existing 75MLD enhanced primary treatment system to a 200MLD biological nutrient removal treatment process.
- Infrastructure audits of several wastewater treatment facilities to identify the current condition of existing infrastructure and document expected life and replacement costs for future capital budgeting.

- Process energy efficiency audits of several wastewater systems to document process modification to reduce energy consumption.
- Design engineer for secondary clarifier upgrades for Mill Cove WWTF.
- Project Manager for Town of Digby regional wastewater project.
- Design engineer for the 1.5 MLD Falmouth Phase II STP upgrades. This project included a second oxidation ditch, two new circular clarifiers, RAS/WAS pumping, and an aerobic digester.
- Technical advisor for the design of a 35,000 Lpd re-circulating sand filter and 1,500 Lpd on-site contour wastewater disposal systems to service DND - Newport Corners communication facility.
- Lead project engineer for the investigation of upgrades and replacement options for an aerated lagoon system servicing DND Camp Aldershot, NS. The evaluation process investigated upgrading the existing aeration system and installing baffles in the existing lagoons, using the existing lagoons as pre-treatment for a second bioreactor followed by microfiltration, SBR process, and MBR process.
- Project Manager for the evaluation of the existing wastewater treatment system servicing the Cabot Trail Camp Ground. This project received the limited historic operating performance of the system and assessed if the design was in compliance with the most Atlantic Canada Wastewater Treatment Design Manual.
- Lead design engineer for wastewater collection and treatment upgrades to YARA, Trinidad and Tobago. This project included the preparation of pre-design to explore several collection system upgrades and treatment options. The most feasible option was to design a RSF to treatment the bulk of the wastewater with remote re-circulating textile filter to treat two remote sites where connecting to the central system was not feasible.
- Design engineer for the design of a septage receiving system and dewater system for the County of Cumberland.
- Detailed design of a re-circulating sand filter and wastewater collection system to service condominium development in Halifax; flows ranging from 45,000 Lpd to 171,000 Lpd.
- Detailed design of a re-circulating sand filter and wastewater collection system to service the community of Tusket.
- Performed assessments of proposed subdivisions to determine lot sizing and placement of on-site sewerage disposal systems based on environmental regulations.
- Wastewater collection and treatment study for a day use park in Halifax.
- Performed a hydraulic assessment of the Town of Antigonish's storm water collection system and monitored the town's sewage and water treatment plants using a SCADA system.

INDUSTRIAL WATER TREATMENT

- Project Manager and design lead for a process water collection and treatment system servicing a major shipbuilding and repair facility.
- Process design review for a passive ARD treatment system treating seeps from an abandoned coal mine workings.
- Conducted field work at Wabush Mines to develop a mass balance of the beneficiation process in an attempt to reduce water use.
- Process lead for improvements to an existing passive ARD treatment system servicing seeps from abandoned coal workings.
- Process review of existing HDS process which included several optimization recommendations for an existing HDS process servicing an international airport.
- Process and mechanical design of a HDS process as part of mine site remedial program.
- Process design of remedial system to treat petroleum impacted water using gravity separation and air stripping.
- Investigated alternative to gas chlorination for local pulp and paper company. This included preparing capital and operating costs for all options.

- Lead process engineer on a feasibility and treatability study for a proposed landfill in Central Newfoundland. The study estimated the leachate quality from land that are managed and receive the similar waste stream as the proposed landfill. Leachate treatment options, aerated lagoon with wetland, activated carbon enhanced SBR, and MBR process were evaluated against the predicted leachate quality and estimated discharge limits. A receiving water study was conducted to determine the assimilative capacity of the receiving environment.
- Design engineer for the design of an aerated lagoon treatment system followed by wetland polishing and overland dispersal for landfill leachate for CJSMA.



Emanuel NICOLESCU

MCIP, LPP TRANSPORTATION PLANNER



AREAS OF SPECIALTY

Transportation Planning, Urban Planning, Master Planning, Travel Demand Modeling, Traffic Microsimulation, Roundabout Design

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

2017 – OPPI/LPPANS

2017 – CIP

EDUCATION

2010 Master in Science of Planning, Toronto, University of Toronto

2001 B. Arts and Science, Major in Urban, Social and Economic Geography, Specialist in Fine Art History, Toronto, University of Toronto

EXPERIENCE

Mr. Nicolescu is a licensed professional planner with eleven (11) years of experience in urban and transportation planning, traffic engineering and transportation modelling. He has a broad range of development planning and transportation project experience, including multimodal travel demand forecasting, roundabout design, traffic operations, transit, parking, and planning studies.

Over the years, Emanuel has worked for public-sector clients like the City of Toronto, City of Montreal, City of Gatineau, Metrolinx, Toronto Transit Commission, Ontario Ministry of Transportation, and Town of Caledon, as well as numerous private-sector clients like Loblaw's, Lifetime Developments Inc., and Mattamy Homes. While his project work has been focused on Southern Ontario the Greater Toronto Area, and the Montreal Area, Emanuel also has international experience. Having worked in India, he was instrumental in the development of travel demand models as part of the Comprehensive Transportation Study for the Hyderabad Metropolitan Area in the state of Andhra Pradesh (now Telangana).

In his role as Urban Planner, Emanuel is responsible for reviewing local planning policy documents, zoning by-laws and guideline applicability to ongoing projects, aiding in the development of planning visions, and the development of land use planning scenarios. As a Transportation Planner, Emanuel is responsible for travel demand forecasting, transportation operations and traffic engineering analyses, and the production of comprehensive transportation models at the macro-, meso- and microscopic levels. He is experienced with a broad range of traffic modelling and simulation software, including Synchro/SimTraffic, TSS AIMSUN, PTV VISSIM & VISUM, Caliper TransCAD, INRO Emme, and TRL Arcady.

Over the past 5 years, Emanuel has specialized in the development of mesoscopic, microscopic and hybrid simulation solutions using AIMSUN and VISSIM in a number of large-scale master planning undertakings in the GTHA and Montreal areas, exploring multi-modal interaction, roundabouts, transit priority, and highway access. Emanuel also has a good working knowledge of Geographic Information Systems (GIS) platforms like ArcMap and QGIS, their application to urban planning and transportation operations assessment, and the potential of leveraging their powerful data management capabilities to derive an in-depth understanding of patterns and trends.

TRANSPORTATION MODELING

- Operations Study of the proposed intersection of the extensions of Assomption Boulevard and Souigny Highway, City of Montreal (Transportation Planner, Modeller [Aimsun], and analyst) 2017-2018.
- Assessment of Roundabout Corridor for Proposed Development of the Carrefour Richelieu Retail Centre between Serge-Pepin Road and Chemin de l'Industrie, Town of Beloeil (Transportation Analyst and Modeller [VISSIM]), 2018.
- Extension of Living Arts Drive Roundabout Analysis, City of Mississauga (Transportation Analyst, Modeller [VISSIM and Arcady]), 2017.
- Operations Analysis of the proposed Hurontario LRT, City of Mississauga (Transportation Planner, Modelling Advisor [VISSIM]), 2018.
- Independent Engineering Opinion on the Proposed Closure of René-Lévesque Boulevard on Nuns' Island, City of Montreal (Transportation Analyst, Modeller [VISSIM]), 2017.
- Traffic Study in the Honoré-Beaugrand neighbourhood of the Mercier-Hochelaga-Maisonneuve Borough, City of Montréal (Transportation Planner, Modeler [Aimsun], and analyst), 2016
- Technical Study of the Traffic Impacts of a Reduction of Public Transit Services on the Screenlines of Gatineau, Société de transport de l'Outaouais (Transportation Planner, Modeller [EMME, Aimsun], and analyst) 2016.
- Technical Study on Transit Priority Measures for buses on Boulevard des Allumettières, between St-Rédempteur Street and Highway 50 in Gatineau, Société de transport de l'Outaouais (Transportation Planner, Modeler [Aimsun], and analyst) 2016.
- Design and Analysis of the Proposed Roundabout for the Intersection of Simard Boulevard and Riverside Street in Saint-Lambert, Quebec, Town of Saint-Lambert, (Transportation Planner, Modelling Advisor [VISSIM]), 2016.
- Stouffville Rail Corridor Grade Separation Program, Cities of Toronto and York Region, Ontario (Transportation Modeller [EMME & AIMSUN]), 2016 – 2017.
- Broadway SkyTrain Extension | Transit Ridership Forecast Update, Vancouver, BC (Transportation Model Analyst, model reviewer [EMME]), 2015 – 2016, Translink.
- VivaNext, Yonge Street, Richmond Hill, Ontario (Senior Transportation Modeller [Vissim] and Analyst), 2015-2016, York Region Transit (sub-consultant to Morrison Hershfield).
- Mayfield West Phase 2 Transportation Assessment, Town of Caledon, Ontario (Transportation Planner and Senior Transportation Modeller [EMME, Aimsun] and Analyst), 2014-2016, Mayfield West Landowners Group (in collaboration with Town of Caledon).
- Transportation Assessment for North Markham Landowners Group, Town of Markham, Ontario (Transportation Planner Analyst and Modeller [EMME]), 2014-2015.
- St. Clair Avenue West Functional Planning Study, Toronto, Ontario (Transportation Planner and Senior Transportation Modeller [Aimsun]), 2014-2015, City of Toronto.
- Comprehensive Transportation Study for the Hyderabad Metropolitan Area, Hyderabad, Andhra Pradesh, India (Transportation Modeller (EMME), Planner and Analyst), 2012-2013, Hyderabad Metropolitan Development Authority.
- Eglinton Crosstown LRT Preliminary Station Design Report and Corridor Study Report, Toronto, Ontario (Transportation Planner and Modeller [TransCAD]), 2011, TTC, Metrolinx.
- Vaughan Metropolitan Centre Transportation Modeling, Vaughan, Ontario (Transportation Planner and Modeller [TransCAD]), 2010, Toromont Landowners Group.
- Town of Innisfil Alcona North and South Secondary Plan Area Transportation Modeling, Innisfil, Ontario (Transportation Planner and Modeller [TransCAD]), 2011, Town of Innisfil.

PLANNING STUDIES AND EVALUATIONS

- Highway 125 Exit 6 Origin-Destination Study, Sydney, Nova-Scotia (Transportation Modeller [VISUM] and Analyst), 2018, NSTIR.

- MacDonald Bridge Ramp Modifications, Halifax, Nova-Scotia (Transportation Planner and Analyst), 2018, Halifax Regional Municipality
- Yonge-Eglinton Transportation Assessment, Toronto, Ontario (Transportation Planner and analyst), 2017-2018, City of Toronto.
- Downtown Richmond Hill Transportation and Parking Master Plan, Richmond Hill, Ontario (Transportation Planner and Analyst), 2015-2016, Town of Richmond Hill.
- Liberty Village Collector Road, Schedule 'C' Municipal Class EA, Toronto, Ontario (Transportation Planner and Modeller [TransCAD]), 2015, City of Toronto.
- Algonquin Island Bridge Schedule 'C' Municipal Class EA, Toronto, Ontario (Transportation Planner and Analyst), 2015, City of Toronto.
- North Brooklin Transportation Master Plan, Whitby, Ontario (Transportation Planner), 2013-2015, Brooklin North Landowners Group.
- North Queen Street Extension Schedule 'C' Municipal Class EA, Toronto, Ontario (Transportation Planner and Modeller [TransCAD]), 2014, City of Toronto.
- Dufferin Street Bridges Schedule 'C' Municipal Class EA, Toronto, Ontario (Transportation Planner and Modeller [TransCAD]) 2013, City of Toronto, Toronto Transit Commission, and GO Transit/Metrolinx.
- Front Street Reconfiguration, between York Street and Bay Street, Schedule 'C' Municipal Class EA, Toronto, Ontario (Transportation Planner, Modeller [TransCAD], and Analyst), 2011-2012, City of Toronto.
- Slots at Ajax Downs Traffic Infiltration Study Update, Ajax, Ontario (Transportation Planner), 2012, Town of Ajax.
- Employee Travel Time Review, Toronto, Ontario (Transportation Planner and Modeller [TransCAD]), 2011, RBC.
- Eglinton Crosstown LRT Traffic Management and Construction Staging Analysis, Toronto, Ontario (Transportation Planner), 2011, TTC.

TRAFFIC IMPACT AND PARKING STUDIES

- Eastern Health, Health Sciences Centre Traffic and Parking Study, St. John's Newfoundland (Transportation Planner and Analyst), 2018, Eastern Health.
- 1325 Lower Water Street Cunard Block Traffic Impact Statement (Residential), Halifax, Nova-Scotia (Traffic Analyst), Southwest Properties Ltd.
- Toronto York Spadina Subway Extension Steeles West Subway Station Traffic Impact Study, Toronto, Ontario (Traffic Analyst), TTC.
- 220 Lake Shore Boulevard and 10 Park Lawn Road Access Study, Toronto, Ontario (Traffic Analyst), ONNI Group.
- 1030 King Street West Traffic Impact Study (Residential), Toronto, Ontario (Traffic Analyst), Partners Inc.
- 9-21 Grenville Street Traffic Impact Study (Residential), Toronto, Ontario (Traffic Analyst), Lifetime Developments.
- 9 Tippet Road Transportation Assessment (Mixed-use Residential, Commercial), Toronto, Ontario (Traffic Analyst), Malibu Investments Inc.
- 700 Huron Street Transportation Impact Study (Residential), Toronto, Ontario (Traffic Analyst), Burnac Holdings Limited.
- 21 Avenue Road Traffic Impact Study and Loading Review (Mixed-use Residential), Toronto, Ontario (Traffic Analyst), Camrost-Felcorp.
- 355 Church Street Traffic Impact Study, Parking and Loading Review (Mixed-use Residential), Toronto, Ontario (Traffic Analyst), Tridel.
- Grand Harwood Place Traffic Impact Study (Mixed-use Residential), Ajax, Ontario (Traffic Analyst), Windcorp.

- 10 St. Mary Street Transportation Impact Study, Toronto, Ontario (Traffic Analyst), Crestpoint Real Estate Investments Ltd.
- 175-193 Dundas Street (Residential) Transportation Parking Study, Toronto, Ontario (Traffic Analyst), CentreCourt Developments Inc.
- 20 Edward Street Transportation Impact Study (Mixed-use), Toronto, Ontario (Traffic Analyst), Lifetime Developments.
- 710-810 Winston Churchill Avenue Transportation Impact Study, Mississauga, Ontario (Traffic Analyst), Lifetime Developments.
- 10 Wilby Crescent Traffic Impact Study and Parking Review (Residential), Toronto, Ontario (Traffic Analyst), Homebuyers Development Cooperative.
- 1 Rossland Road East Traffic Impact Study and Functional Design (Commercial), Ajax, Ontario (Traffic Analyst), Belmont Equity Partners.
- Downtown Belleville Parking Study, Belleville, Ontario (Parking Analyst), Town of Belleville
11175 Kennedy Road, Buddhist Temple Parking Study, Markham, Ontario (Parking Analyst), Mahamevnawa Buddhist Monastery Toronto.
- 1030 King Street West Parking Study (Residential), Toronto, Ontario (Parking Analyst), 1030 King Street West Partners Inc.
- 9-21 Grenville Avenue Parking Supply Study, Toronto, Ontario (Parking Analyst), Lifetime Developments.
- 2011 & 2014 Peel Region Cordon Count Program, Peel Region, Ontario (Transportation Planner and Analyst), 2011-2014, Region of Peel.
- 24 Ditton Drive TDM Report, Stoney Creek, Ontario (Traffic Analyst), Promer Management Inc.



Emma MACEACHERN

JUNIOR TRANSPORTATION PLANNER



AREAS OF SPECIALTY

Transportation and Transit Design
Land Use Planning

EDUCATION

Bachelor of Community Design, Honours in Urban Design and Planning – Dalhousie University 2020

PROFESSIONAL MEMBERSHIP

It's More than Buses – Transit Advocacy Group
Canadian Urban Transit Association
Licensed Professional Planners Association of Nova Scotia
Canada Green Building Council
Plan(h)ers
Youth Accessibility Leader – Enabling Accessibility Fund
Canadian Institute of Planners

AWARDS & RECOGNITION

School of Planning Thesis Prize in Transportation Planning
Wallace & Marie Dykeman Prize in Rural Planning
Canadian Urban Transit Association Young Leaders Summit Delegate
Canadian Institute of Planners – John Bousfield Bursary
Dalhousie University Dean's List
Sexton Scholar

EXPERIENCE

Emma recently joined CBCL and is a recent university graduate with a bachelor's degree in urban planning with six months of transportation planning internship experience, and research experience in new mobility solutions and transit-oriented development.

Southwest Properties, Halifax, NS – Planning Intern

January 2020 – April 2020

- Review building design against municipal by-laws and regulations.
- Provide technical support to planning and development team - including updating and maintaining key records.
- Review site plan applications and feedback from municipal planning staff.
- Assist with preparing submissions to municipal planning office.
- Conduct research on redevelopment opportunities for existing properties.

Nova Scotia Department of Energy & Mines, Halifax, NS – Clean Transportation Intern

May 2019 – August 2019

- Conduct research and reporting for clean transportation policy, regulations, and design standards.
 - Provide creative and innovative input for clean transportation program design.
 - Assist in the implementation of departmental clean transportation initiatives and marketing campaigns.
 - Support in the review of transit fleet electrification feasibility studies.
-

Bicycle Nova Scotia, Halifax, NS – Active Transportation Development Officer

July 2018 – September 2018

- Administration of Bicycle Friendly Certification program.
- Support in the review of bicycle route feasibility studies.
- Conduct research relating to active transportation network design.
- Report writing and research.
- Develop and present bicycle tourism report to the Director of Bikeways and Blue Route Implementation.
- Responsible for management of social media accounts.



David COPP

EIT, TRANSPORTATION ENGINEER-IN-TRAINING



AREAS OF SPECIALTY

Transportation and Traffic Engineering

EDUCATION

2019 Master of Science in Civil Engineering, University of New Brunswick, Fredericton, NB

2017 Bachelor of Science in Civil Engineering, University of New Brunswick, Fredericton, NB

MEMBERSHIPS

Engineer in Training - Engineers Nova Scotia

AWARDS

Canadian Transportation Research Forum Transport Canada Scholarship

Dr. Michael & Mary Ircha Scholarship in Transportation

Beaverbrook Scholars Award

EXPERIENCE

David joined CBCL in 2021 and has experienced a role of providing engineering and design support services on a variety of projects including transportation and traffic engineering/planning, industrial developments, and environmental resiliency design of at-risk infrastructure.

Projects that David has contributed to during his time at CBCL are listed below:

- 201009.00 St. Vincent Electricity Services Limited Building Resilience of the Electricity Sector Infrastructure (ST. VINCENT AND THE GRENADINES) – Provided preliminary and detail designs for the reinforcement of electrical infrastructure in the local network to withstand climate change impacts. Developed site plans and sections with Civil 3D, produced quantity take-offs for opinions of probable cost, and coordinated different subprojects to ensure work was completed as needed. Contributed to the writing of preliminary and details design reports, as well as assisted with assembling costs for economic analysis.
- 211061.00 Street Upgrade Functional Guide (BRIDGEWATER, NS) – Developed a prioritization structure for implementing new retrofit street sections into the existing Town road network based on corridor facility requirements. Also presented the recommended ranges for sizing of several major road components, with discussion outlining reasoning for the values based on TAC Geometric Guidelines. New road cross sections and component prioritization tool were presented in a functional guide to aide Town staff when making decisions about space allocation through the Right-of-Ways.
- 218453.00 Eastern Shelbourne Country Accessibility Plan (SHELBOURNE, NS) – Developed a series of maps encompassing the local towns using QGIS to highlight municipal infrastructure that would be subject to upcoming accessibility legislation. Aided in conducting a project kickoff workshop with local stakeholders to identify the needs of the Plan and existing accessibility shortfalls.
- 211063.00 Traffic Impact Study / Improvement Plan (CHESTER, NS) – Performed data collection for parking demand analysis. This involved continual counting of parked vehicles in the study areas over a 5-hour period. Also provided analysis of count data to identify any locations where parking needs were not being met.
- 210314.00 COWI Mackay Bridge Roadmap (HALIFAX, NS) – Provided engineering and drafting services for the preliminary layout of new alignment options for the Mackay Bridge across the Halifax Harbour. Designs adhered to TAC and HRM design standards and alignments and profiles

were generated in Civil 3D to compare benefits and constraints of each alternative from the perspective of overall function and land-acquisition.

- 211062.00 Middleton Industrial Park (MIDDLETON, NS) – Provided engineering and CAD services for the potential development of an extension to the existing Industrial Park in the Town of Middleton. 3D models were generated using Autodesk InRoads to display where a new access road could be located to service the site, as well as identify possible land parcel configurations and sizing. Quantity estimates were performed to facilitate a high-level opinion of probable cost to build the new access road and accompanying water services.
- 211032.00 Scotia Recycling Facility Expansion (KENTVILLE, NS) – Provided drafting services for the initial site plans of a new expansion of a large recycling facility. Included developing Civil 3D layouts and elevations of footings and foundations, existing building configuration, new driveway and scale locations for review.
- 210320.00 Mill Cove Ferry Terminal Concept Design (HALIFAX, NS) – Provided engineering and CAD services for the preliminary site access and layout of a new ferry terminal in the HRM. TAC Geometric Guidelines and HRM standards were used to develop a 3D model in Autodesk InRoads to create and edit design alternatives based on the constraints of the nearby railway and proximity to the Bedford Basin. Work also involved intersection capacity analysis assessment using Synchro. Included consultation with a multidisciplinary team of engineers, planners, and architects.
- 201030.00 Michelin Bridgewater Truck Entrance (BRIDGEWATER, NS) – Provided drafting services for updates to proposed site plans for the expansion and reconfiguration of site access and parking configuration for a large industrial facility. Work also included updating quantity and OPC estimates and the development of a design change summary report for clients.
- 221014.00 Sipekne'katik First Nation Gaming Centre Access (HAMMONDS PLAINS, NS) – Provided conceptual design sketches for the potential relocation and development of driveways for improved site access. This included the production of a high-level 3D model of the site area using Autodesk InRoads, and coordination with previous planning studies to highlight potential impacts of existing development on future work.
- 222412.00 Kennington Cove Freshwater Bridge Replacement (LOUISBOURG, NS) - Provided engineering and drafting services for the preliminary layout of new alignment options for an existing roadway and new bridge structure in the park area of the Louisbourg National Historic Site. Designs adhered to TAC and NS provincial design standards, and site plans, alignments and profiles were generated in Civil 3D.
- 220505.00 Access RNG Truck Offloading (GOFFS, NS) – Provided drafting services for the preliminary site layouts of a rural industrial site for renewable natural gas. Work included running truck turning throughout the site to determine space requirements and developing preliminary quantity estimates.

Before joining CBCL, David graduated from the University of New Brunswick with a Master of Science in Civil Engineering, specializing in transportation engineering. David previously worked as a research assistant for the UNB Transportation Research Group, along with conducting individual research focused on the integration of autonomous vehicles into rural transportation planning.

UNB, Fredericton, NB – Post-Graduate Research Assistant

February 2020 – May 2020

- Created primer of the Highway Capacity Manual for a non-technical audience including a summary of fundamental transportation and traffic theory and detailed the essential components of highway capacity.
- Performed jurisdictional scan of provincial/territorial transportation decision-making processes for infrastructure investments, and identified the prioritization methods in each region.

- Established prospective data inputs to form the basis of a planning tool to assess highway capacity across the national high network.

UNB, Fredericton, NB – Graduate Researcher

May 2018 – September 2019

- Conducted research to better understand the applications of autonomous vehicles to meet transportation needs of rural residents.
- Analyzed data from local volunteer driver groups to study the service attributes and operating environments needed to supply a satisfactory level of service to users, and identified gaps in the potential for self-driven vehicles to fulfill the demand.

UNB, Fredericton, NB – Research Assistant

May 2018 – August 2018

- Researched the demand for transportation alternatives in rural New Brunswick.
- Conducted thorough review of census data and population growth metrics.
- Applied trip rates to develop travel demand projections for different age cohorts.
- Co-wrote discussion paper outlining the current and future demand for transportation in rural communities and the importance of monitoring the available supply of alternatives.



Jeffrey CLAIR

P.ENG., MUNICIPAL ENGINEER



AREAS OF SPECIALTY

Construction Administration
Project Management
Water Distribution and Pumping
Concept Level Studies
Detail Design
Commissioning

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

APENS – Since 2017
APEGA – 2008 to 2017

EDUCATION

2007 B.Eng. Civil Engineering, Dalhousie University
2004 Diploma of Engineering, University of Prince Edward Island

EXPERIENCE

Mr. Clair is a registered professional engineer with over twelve (12) years of experience. Mr. Clair's responsibilities include: project management, concept studies, preliminary and detailed design, tendering, procurement, construction administration and cost estimating.

Relevant projects that Mr. Clair has participated in are as follows:

- WILLIAMS LAKE PUMP STATION UPGRADES – Design engineer for the upgrades to an existing sanitary lift station. The upgrades will replace the existing pumps with three (3) dry-pit submersible pumps operating on variable frequency drives to provide a firm station capacity of 254 l/s (4,025 USgpm). Existing flow records as well as the upstream and downstream constraints were evaluated to establish a suitable firm capacity.
- SILVERSIDE BOOSTER STATION UPGRADES – PROJECT Manager and design engineer for the upgrades to replace all the mechanical and electrical equipment for an existing inline domestic only booster pump station.
- CALEDONIA TRANSMISSION MAIN REPLACEMENT AND TACOMA PRV REPLACEMENT – Project manager design engineer and construction administrator for a 1.7 km long 750 mm diameter (30") potable water transmission main. The new main will twin the existing 600 mm diameter (24") concrete cylinder pipe. The existing main is a critical feed to a large portion of the Halifax Water East Region system. Interconnections between the new and existing mains required careful planning to limit disruptions to the water supply. The project involved a routing analysis to determine the preferred alignment and coordination with an archaeological assessment. The project is being constructed in two Phases which Phase 1 is nearing completion. This project also involved the replacement of a Pressure Reducing Valve Chamber.
- HEBB'S LAKE LOW LIFT PUMP STATION REPLACEMENT – Design engineer for a new low lift pump station for the Public Service Commission of Bridgewater. The pump station is currently under construction and will house a total of three (3) split case centrifugal pumps with a firm station capacity of 133 l/s (2,113 USgpm)
- COWIE AND HEMLOCK WATER RESERVOIRS – Project Manager and design engineer for the preliminary and detailed design of two potable water reservoirs for the Halifax Water distribution system. The Cowie Reservoir is an existing 11.2 Million Litre Pre-stressed Concrete tank at the end of its useful life and

is to be replaced under this contract. The Hemlock Reservoir will be an all-new 21.1 Million Litre tank intended to service the needs of the growing residential developments in the community of Bedford. The project is currently in the preliminary design stage and has so far conducted sizing analysis to verify volume requirements, tank material analysis to select a material with the lowest life cycle cost, control system upgrades and water quality analysis. Detailed design will proceed in the summer of 2019 with construction slated for 2020 and 2021.

- NORTH END FEEDERMAIN TWINNING – Project Manager and lead design engineer for a routing analysis to twin a critical section of a 900 mm diameter water feedermain in the Halifax Water Pockwock Transmission System. The existing water feedermain is located in an existing tunnel crossing a highly congested utility and traffic corridor. Stakeholder engagement was a necessary step in the routing analysis due to the limited high traffic volume right-of-way, and two existing railway mainlines and a number of landowners. The project considered new routing options that included modern trenchless technologies to establish five routing options. High level costing was developed and incorporated land acquisition costs to compare options.
- MIDDLETON RESERVOIR REPLACEMENT CONCEPT DESIGN – Project Manager and lead design engineer for a study to determine a preferred location for a new 3.4 Million Litre reservoir to replace the existing earthen reservoir. A hydraulic analysis was conducted utilizing modelling software to determine necessary upgrades to the distribution system to maintain the current level of service for three different reservoir locations. To undertake the analysis, a water model was updated and calibrated using field data collected by CBCL for the engagement. Three different storage scenarios were considered which included gravity fed ground level storage, pumped ground level storage and elevated storage. Integration of the existing water supply system was critical due to the interconnection of the water supply to the distribution system
- LYLE STREET BOOSTER STATION OPTIMIZATION STUDY – Conducted a condition assessment and optimization study for an existing water booster station that provides an emergency water source to Dartmouth. The study evaluated updates to the supply and receiving systems to determine the required upgrades to optimize the station for three capacity scenarios. The study also identified deficient items with regards to the condition of the station as well as costs for repair.
- POTLOTEK WATER TREATMENT PLANT – Lead civil engineer for the preliminary and detailed design of 700 m long 200 mm diameter water transmission main, 680 cubic meter (180,000 USgal) water storage standpipe. The project also included civil site development for the storage standpipe and water treatment plant and maintenance upgrades for an existing sanitary lift station. An active mixing system was incorporated in the standpipe to ensure a well-mixed tank and high quality potable water. Additionally, to minimize water temperature heat gain or loss and to reduce the risk of ice cap formation the tank will be insulated.
- MILL COVE FIRE PROTECT SYSTEM EVALUATION– Conducted a life cycle and capital cost study to determine if a centralized fire protection system could be decommissioned. Fire protection requirements were established and a suitable alternative decentralized system was developed. The existing fire protection system is aging and in need of repairs and capital and O&M costs for repairs for the centralized system were evaluated against capital and O&M costs for a decentralized system. Advantages and disadvantages to each system were also considered.
- PANUKE PUMP STATION REPLACEMENT STUDY – Lead design engineer in the analysis of an existing Pump Station located within West Hants. The study developed options for and scenarios for replacement stations complete with capital costs. System hydraulics were evaluated and available fire protection was confirmed.
- HEBB'S LAKE LOW LIFT STATION ASSESSMENT – Participated in an assessment of an existing raw water low lift station whose performance had been decreasing over time. The study evaluated the existing station infrastructure, raw water inlet as well the raw water system hydraulics. Two flow tests were conducted to understand system hydraulic performance to delineate where the highest friction losses were occurring.

- BEDFORD CONNECTOR REPLACEMENT PHASE 3 – design engineer for the replacement of a 750 mm diameter water feedermain that is the primary water supply for Bedford and Sackville. The project includes 1 km of high pressure concrete and ductile iron piping, a highway tunnel crossing and interconnections around existing infrastructure. A hydraulic analysis was carried out in the preliminary design to understand the impacts of the replacement piping and interconnections. The project was constructed and successfully commissioned in 2017.
- ARMDALE PUMP STATION UPGRADES – design engineer for the upgrading of an existing sanitary lift station which also included civil works. The upgrade included the replacement of existing 100 hp pumps with new 160 hp pumps operated on variable frequency drives, replacement of all interior piping and modifications to the existing wet well. Was involved in the construction administration and commissioning to bring the project to a successful completion.
- WINDSOR/FALMOUTH WATER DISTRIBUTION SYSTEM INTERCONNECTION FEASIBILITY – The feasibility study considered possible benefits to each utility with respect to treatment filter redundancy, sharing of storage facilities, and system redundancy. As part of the study, a water model was developed for the Falmouth system and added to the Windsor water model and utilized for evaluation of system interconnection hydraulics. Numerous scenarios were developed to understand the influence of one water system to another. As well, an evaluation of water quality was conducted to understand compatibility of the two systems water supplies.
- Town of Pictou Pressure Zones – Design of a reduced zone boundary and Pressure Reducing Valve (PRV) chambers for an existing water distribution system. As part of the design, a hydraulic analysis was conducted on the existing water distribution system to delineate a reduced zone boundary and determine the preferred locations for Pressure reducing valve chambers. When the two sites were selected, detailed design was undertaken. The chambers were designed for easy access and maintenance and not require confined space entry.
- PORT WALLACE MASTER PLAN INFRASTRUCTURE STUDY – Responsible for the hydraulic analysis of the extension of the existing Halifax water system as part of an overall infrastructure study for the Port Wallace Development. The hydraulic analysis involved input from stakeholders and Halifax Water to understand to impacts of the proposed Port Wallace development area on the existing distribution system. The analysis considered both development requirements and also evaluated the distribution system as a whole.
- GLOOSCAP LANDING CIVIL SITE DEVELOPMENT – design engineer for a commercial site development near Hantsport that included a 1 km sanitary sewer connection with a bridge crossing; potable water booster station and more than 2 km water transmission main. Involved with preliminary and detailed design, tendering and construction stages of the project.
- HALIFAX INTERNATIONAL AIRPORT AUTHORITY – design engineer for domestic booster pump system to supply potable water to the Lavatory building.
- BURNSIDE DEVELOPMENT PHASE 12-6 – design engineer for a water booster station to service an industrial area. Conducted a hydraulic analysis of the boosted system along with model verification. Involved with preliminary and detailed design, tendering and construction stages of the project for the Booster Station.
- WINDSONG PUMP STATION AND RESERVOIR (AB) – Project manager and process design engineer for a 10 million litre reservoir and pump station for the preliminary and detailed design, tendering and construction stages. The reservoir was a buried concrete multi-cell structure and included modelling and analysis of water distribution system redundancy.
- BRAGG CREEK (AB) WTP POTABLE WATER RESERVOIR – Project manager and design engineer for a 500,000 litre above ground reservoir for the preliminary and detailed design, tendering, procurement, construction administration and cost estimating.
- WATER SUPPLY UPGRADES AND SANITARY LIFT STATION FOR AN OIL SANDS CAMP IN NORTHERN ALBERTA – design engineer for the addition of potable pumping and storage to the existing water supply building for the addition of the a worker camp to an oil sands. The project also included a sanitary lift station

and storage for the attenuation of the peak sanitary flows for discharge to the existing infrastructure.

- WTP & WWTP OPERATIONS IMPROVEMENT STUDY FOR AN OIL SANDS PROJECT IN NORTHERN ALBERTA – developed cost estimates for multiple options to improve the operations of the multiple WTP and WWTP facilities for an oil sands site.
- BRAGG CREEK (AB) WTP POTABLE WATER PUMPING UPGRADES – Process design engineer during the detailed design, tendering, construction and commissioning stages of the addition of potable water pumping to the existing water treatment plant.
- CONRICH (AB) RESERVOIR AND PUMP STATION - process design engineer for a 4.5 million litre reservoir and pump station for the preliminary and detailed design stages. Assisted in the tendering and construction and commissioning stages and conducted site inspections. The project also included the pre-purchase of the pumps and stand-by power generator to achieve the project schedule.
- EAST BALZAC (AB) WTP UPGRADES – Project coordinator for upgrades to the existing East Balzac for detailed design, tendering, construction administration and commissioning. Upgrades consisted of a raw water lift station, addition of UV disinfection, upgrades to existing chemical feed systems and raw water reservoir aeration system.
- FISH CREEK PROVINCIAL PARK (AB) HERON AND ACADIA STORMWATER QUALITY RETROFITS - resident engineer for stormwater quality retrofits which included three stormwater ponds, storm piping, cast-in-place diversion structures, and sanitary trunk main and concrete feedermain realignment.
- EAST BALZAC (AB) WTP– Resident engineer for the construction and commissioning of a 2.5 MLD High Rate DAF and GAC / Sand Filter Water Treatment Plant. The project included raw water lift stations, yard piping, ultraviolet disinfection, chemical treatment systems, high lift pumping, stand-by generation, and auxiliary systems.



Abdullah KHAYYAL

BSc.
CIVIL DESIGNER



AREAS OF SPECIALTY

Civil 3d Modelling, Transportation Engineering, Traffic Modelling, GIS Mapping, Earthworks Design & Modelling, Quantities Takeoff, CAD Drafting

EDUCATION

Bachelor of Civil Engineering, Ain Shams University, Cairo, Egypt, June 2008

EXPERIENCE

Abdullah joined CBCL in 2019, bringing a total of 9 years of world wide experience in Transportation Engineering. He has experience in delivering design and analysis objectives of a variety of projects related to land development, urban planning, transportation and civil engineering in more than 10 countries. In these projects he provided engineering design and data analysis to deliver traffic impact and parking demand studies as well as the geometric design of highways, roundabouts and interchanges, applying ITE, HCM, AASHTO and MUTCD standards.

Abdullah has experience in design using AutoCAD Civil 3d as a professional user and instructor, and he is also capable of fulfilling traffic flow simulation and analysis requirements using software packages like Synchro, Sidra Intersection and PTV Vissim.

A sample of projects that Mr. Khayyal was involved in are listed below:

TRANSPORTATION ENGINEERING

- CHARLOTTETOWN GROWTH MANAGEMENT STRATEGY, CITY OF CHARLOTTETOWN, PRINCE EDWARD ISLAND – Contributed in the analysis of the existing road network and developing the transportation analysis zones in the city; contributed in developing the Visum model required for the macro-analysis of the road network (2020-Ongoing).
- TOWN OF MAHONE BAY TRANSPORTATION PLAN, TOWN OF MAHONE BAY, NOVA SCOTIA (2020) – Conducted GIS mapping and built the required databases, contributed in the analysis of existing challenges and proposing solutions, created 3d models for the proposed options and prepared video presentation to show the future conditions and estimated the quantities and costs of the proposed improvements.
- QEII NEW GENERATION PROGRAM – SUMMER STREET PARKADE, NSLANDS, NOVA SCOTIA (2020) – Conducted traffic analysis to assess the impact of anticipated future volumes, contributed in planning improved configurations for the existing intersections to minimize traffic delays.
- WALLACE HILL LAND DEVELOPMENT ENGINEERING SERVICES, SIPEKNE'KATIK BAND, NOVA SCOTIA (2019) – Built the models of existing and future traffic movements in the study area using Synchro, estimated the generated trips from the proposed development and contributed in the analysis of the impact of building the new development on the traffic network and provided recommendations for efficient traffic control.
- KAIZER MEADOW ENVIRONMENTAL MANAGEMENT CENTRE – REVIEW OF TRAFFIC OPERATION, MUNICIPALITY OF CHESTER, NOVA SCOTIA (2019) - Reviewed the existing traffic operations in the site and developed multiple roadway improvements to enhance traffic flow efficiency.
- CARREFOUR BEAUSOLEIL AFTER-HOURS PAVILION, CARREFOUR COMMUNAUTAIRE BEAUSOLEIL INC., MIRAMICHI, NEW BRUNSWICK (2019) - Analyzed and reviewed sight distances and designs of the proposed driveways and recommended signs, traffic paintings and traffic management procedures to ensure safe student crossing.

- TOWN OF SAINT ANDREWS TRANSPORTATION MASTER PLAN, ST. ANDREW'S, NEW BRUNSWICK (2019) – Contributed in studying the existing traffic operations and roadway features within the town road network in the light of public feedback and inspection of existing conditions; created GIS maps and Infracore 3D models for the investigated deficiencies and proposed improvements; designed concept layouts for intersection improvements including a roundabout and a signalized intersection; proposed multiple typical cross-sections to upgrade the existing main roads; contributed in developing proposed active transportation and public transportation master plans; estimated the quantities and costs of the proposed improvements.
- CUNARD BLOCK TRAFFIC IMPACT STATEMENT, DEVELOPMENT SOUTHWEST PROPERTIES LTD., HALIFAX, NOVA SCOTIA (2019) – Built the models of existing and future traffic movements in the study area using Synchro, estimated the generated trips from the proposed development and contributed in the analysis of the impact of building the new development on the traffic network.
- BURNSIDE OPERATIONS CENTRE LOT REVIEW, HALIFAX WATER, HALIFAX, NOVA SCOTIA (2019) – Conducted swept path analysis to review truck maneuverability in the original proposed layout; designed multiple alternatives for the proposed parking layout.
- HEMLOCK RESERVOIR, HALIFAX WATER, HALIFAX, NOVA SCOTIA (2019) – Drafted full civil engineering drawings package for the proposed reservoir including detailed plans, sections and technical details.
- VETERANS MEMORIAL BRIDGE – WATERMAIN CROSSING, PUBLIC SERVICE COMMISSION OF BRIDGEWATER, BRIDGEWATER, NOVA SCOTIA (2019) – Designed concept layouts for two proposed roundabouts on the intersections of Victoria Rd with King St and Lahave Street with Aberdeen Road; contributed in the design of the proposed watermain crossing on Veterans Memorial Bridge; drafted full civil engineering drawings package for the proposed watermain, including plans, profiles and technical details.
- ROSS VENTURES LIMERICK ROAD DEVELOPMENT TIS, ROSS VENTURES LIMITED, FREDERICTON, NEW BRUNSWICK (2019) – Built the models of existing traffic movements in the study area, estimated the generated trips from the proposed residential development and contributed in the analysis of the impact of building the new development on the traffic network.
- HEBB'S LAKE LOW LIFT PUMP STATION REPLACEMENT, PUBLIC SERVICE COMMISSION OF BRIDGEWATER, BRIDGEWATER, NOVA SCOTIA (2019) – Contributed in the site grading design; drafted full civil engineering drawing package for the proposed low lift pump station.
- KING KHALED INTERNATIONAL AIRPORT, VIP TERMINAL, MINISTRY OF CIVIL AVIATION, SAUDI ARABIA (2017) – Provided design services to deliver the detailed design of the land side of the proposed terminal building in the major Saudi Airport. Led the design tasks of the transportation facilities including an access bridge, parking lots, access roads, internal road network and roundabouts.
- DAWASER RESIDENTIAL DEVELOPMENT, MINISTRY OF HOUSING, SAUDI ARABIA (2016) – Participated in the design services for the construction of a 4.6 million square metres residential development. Provided the detailed design and calculations for four roundabouts in the proposed masterplan and developed a design criteria report.
- TAMA HIGHWAY UPGRADE, SAUDI ROYAL COMMISSION, SAUDI ARABIA (2012-2016) – Provided the detailed design services for the proposed upgrade of 20 km segment of the road to satisfy the free flow warrants according to the AASHTO and MUTCD standards and the recommendations of the Saudi Royal Commission as the acting client in this project. Project included preparing detailed highway engineering drawings for the proposed flyovers and interchanges, and designing traffic detours. Developed design analysis reports, bills of quantities and specifications as well.
- UPPER EGYPT LOCAL DEVELOPMENT, THE WORLD BANK, EGYPT (2008-2009) – Participated in traffic analysis and design services to create a feasibility study and preliminary engineering design package for the Local Development Program-for-Results Project for Egypt that aimed to strengthen local government capacity for quality infrastructure and service delivery in select governorates in Upper Egypt with a total budget of US\$ 500.00 million. Processed the traffic count data to calculate the levels of service along the existing corridors and developed the plans for the proposed rehabilitation and new road construction.



Simon PELLERIN

EIT
MUNICIPAL ENGINEER-IN-TRAINING



AREAS OF SPECIALTY

Municipal Engineering

EDUCATION

Dalhousie University – Halifax, NS September 2016 – April 2019, Bachelor of Engineering in Civil Engineering (Co-op)

St. Francis Xavier University – Antigonish, NS September 2014 – April 2016, Diploma in Engineering

EXPERIENCE

Mr. Pellerin is a Municipal Engineer-in-Training who recently joined CBCL. Mr. Pellerin's job experience includes:

Sco-Terra Consulting Group Limited – London, ON – Civil Designer, May 2019 – 2021, Summer 2017 – Winter 2018 and Summer 2015 – Summer 2016

- Conduct topographic surveys and process field data into digital terrain models.
- Design of roads, municipal infrastructure, grading, and stormwater management systems.
- Production of contract drawings for land development and water/wastewater treatment projects.
- Preparation of documents including form of tender, construction contracts, and payment certificates.
- Provide construction support including layout/as-built surveys and full-time quality control inspection.

CBCL Limited – Halifax, NS – Municipal Student, Summer 2018

- Conducted a land development feasibility study including pre-consultation with local agencies.
- Produced contract drawings for site servicing projects in accordance with Halifax Water standards.
- Provided construction support for site servicing projects including as-built survey, full-time quality control inspection, and coordination of required Halifax Water inspections and commissioning.

Halifax Port Authority – Halifax, NS – Engineering Co-op Student, Fall 2017

- Assisted with the planning and execution of maintenance and capital improvement projects as a member of the HPA engineering team, working directly under the Manager of Engineering Projects.
- Acted as a general contractor on multiple construction projects managing procurement and oversight of sub-contractors and material suppliers, as well as coordination with HPA operations personnel.
- Collected as-built survey data for both new and existing infrastructure to produce record drawings for integration in the HPA's asset management GIS system.

TECHNICAL SKILLS

Drawing Production (AutoCAD / Civil 3D):

- 12+ years of experience working with AutoCAD, 3+ years working with Civil 3D.
- Civil drafting skills developed through land development and site servicing projects.
- Mechanical drafting skills developed through wastewater pump station and treatment projects.

Survey:

- 4+ years working with GNSS equipment for topographic, construction layout, and as-built surveys.
- Familiar with Spectra Precision, Trimble, and Leica survey technologies.

Wastewater Collection and Treatment:

- 2+ years working on private on-site wastewater collection and advanced treatment projects delivered under a design-build-operate model (through sister company Sco-Terra Operations Group Inc.).

Stormwater (Hydrologic / Hydraulic) Modelling:

- 4+ years working on the design of stormwater collection and management infrastructure.
- Experienced using rational method design spreadsheets for small-scale projects.
- Competent using MIDUSS software for projects requiring more complex modelling.

Microsoft Office

- Comprehensive working knowledge of Microsoft Word, Excel, PowerPoint, and Outlook as they are applied in the civil engineering and construction industries.



Alan EHRENHOLZ

EIT, MUNICIPAL ENGINEERING



AREAS OF SPECIALTY

Road and Highway Design, Railway Design, Port Terminal Design, Elevated Road Structures, Municipal Site Servicing including Stormwater and Wastewater Design, and Cost Estimation.

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

Engineer in Training – Engineers Nova Scotia
Canadian Green Building Council

EDUCATION

2019 Bachelor of Applied Science, Civil Engineering, Environmental Option
University of British Columbia, Vancouver, BC

EXPERIENCE

Alan joined CBCL in 2019 as a Municipal Engineer in Training. He has over two years of Civil Engineering experience working in Municipal and Transportation engineering. Alan's responsibilities include providing engineering and design services to a wide variety of civil engineering projects, including those related to road and highway design, municipal stormwater and wastewater design, institutional and industrial site servicing, as well as working extensively on port and rail design.

Relevant projects that Alan has participated in are as follows:

- PSA RAIL IMPROVEMENT (HALIFAX, NS) – Provided design for rail improvements at the PSA Halifax Terminal (Halterm). Including working with multiple stakeholders to develop numerous rail and terminal layout options in an iterative process to meet the needs of each group. In addition, this included stormwater design, truck circulation, terminal layout, and site grading work. Developed opinions of probable cost for desired options, and justified design decisions to stakeholders and client.
- MILL COVE FERRY SERVICES (HALIFAX, NS) – Provided preliminary design and option engineering analysis for a new ferry service from Mill Cove to Downtown Halifax. This included working with a multidisciplinary team to analyze the business case, development, grading, servicing, landscaping, terminal design, road layout, access options including a rail overpass, geotechnical conditions, and marine requirements.
- BLUENOSE DRIVE SEWER LINING (LUNENBURG, NS) – Provided design services for a 150m length of 900mm Cured-in-Place-Pipe, both reinforced and unreinforced designs, along Bluenose Drive. Included preparing and presenting at a public consultation to provide information on the methodology and to collect feedback from stakeholders. Continued to provide tender and construction services for the project, include site observation, shop drawing review, and testing result review.
- HRM COMPOST DBOOT (HALIFAX, NS) – Provided civil and transportation design for a new regional compost facility. Work included running AutoCAD Vehicle Tracking Analysis and focusing on ensuring passenger vehicle and pedestrian safety on the site. Stormwater and wastewater management, site grading, quantity take offs, and material volume analysis and optimization were conducted as a part of the project. Reviewed geotechnical report to determine subgrade requirements for the building and roadways. Provided stormwater pond sizing and design, access road profile and corridor design, as well as overall site grading plan. Continued to provide construction services including reviewing and responding to site instructions, contemplated change orders, change orders, and shop drawings.
- HIAA GLYCOL COLLECTION SYSTEM ASSESSMENT (HALIFAX, NS) – Performed a condition assessment on the airport's glycol collection system including visual inspection of pump stations, catch basins, electrical and mechanical components, and CCTV inspection of underground piping. Developed a report

identifying deficiencies, assigned condition ratings on assets consistent with Canada Infrastructure Report Card guidelines, and provided recommendations for repairs. Wrote condition assessment report summarizing the findings and recommendations.

- MIDDLETON STREET RENEWAL (MIDDLETON, NS) – Provided design for the renewal of multiple streets within the Town of Middleton. Included wastewater, stormwater, and water service design and renewal, as well as street resurfacing. Design also included a road culvert and sidewalk routing. Developed opinions of probable cost and specifications of tender documents for the client. Developed a report to describe the design and provide opinions of probably cost.
- LUNENBURG SALTWATER INTRUSION STUDY (LUNENBURG, NS) – Performed a saltwater intrusion study on the Town of Lunenburg's existing stormwater and wastewater collection system. The work included a review of existing conditions and record drawings, coordinating both survey and water sampling, evaluation of potential sources of saltwater intrusion, and schematic design of potential improvements to the existing system. Developed a report to summarize these findings, and to provide opinions of probably cost for the various options being presented.
- NEW RIVER BEACH STORMWATER MANAGEMENT (NEW RIVER BEACH, NB) – Provided civil engineering design for a provincial park site experiencing erosion control issues from rainfall and coastal waters. Included design of Low Impact Development, stormwater retention, site grading, a buried revetment, and development of the site plan and pipe profiles.
- LUNENBURG WATER AND WASTEWATER SYSTEM SURVEY AND GIS (LUNENBURG, NS) – Provided field coordination services for a complete water and wastewater system survey for the Town of Lunenburg.
- MICHELIN TRUCK ENTRANCE RELOCATION (BRIDGEWATER, NS) – Analyzed the impacts to existing parking infrastructure due to proposed roadway changes from NSDTIR. Proposed alternative solutions to the client, and wrote reports summarizing the proposed changes. Prepared opinions of probable cost for each option considered. Coordinated with regulatory bodies and continued to provide detailed design services and phasing recommendations.
- BERWICK STREET RENEWAL (BERWICK, NS) – Provided design for the renewal of multiple streets within the Town of Berwick. Included wastewater and stormwater design and renewal, as well as street resurfacing and sidewalk redevelopment. Developed opinions of probable cost and specifications of tender documents for the client. Developed a report to describe the design and provide opinions of probable cost.
- INDUSTRIAL MUNICIPAL PROJECT ENGINEERING SERVICES (BRIDGEWATER, NS) – Provided design and drafting services for road network, storm water management, water servicing, sanitary servicing, and site grading changes required for an industrial facility. Included conceptual roadway design, including one intersection, and storm water calculations (rational method) as well as subsequent options analysis, detailed design, and construction services. AutoCAD Vehicle Tracking was utilized to determining roadway sizing and design.
- INDUSTRIAL SUB SLAB DRAINAGE (BRIDGEWATER, NS) – Provided field coordination, data collection, data review, options analysis, and remediations recommendations for drainage issues at an industrial facility. Included stormwater capacity analysis and ongoing maintenance considerations.
- IWK EMERGENCY DEPARTMENT REDEVELOPMENT (HALIFAX, NS) – Provided design and drafting services to complete a draft site plan, including Vehicle Tracking Analysis of numerous civilian an emergency vehicle entrances, for the proposed redevelopment of the IWK Emergency Department. Completed schematic design of the stormwater, wastewater, and water services.
- KINGSWOOD DEVELOPMENT (DARTMOUTH, NS) – Provided design and drafting services for all civil site works for the Kingswood Apartment development. Included providing existing and proposed sanitary sewer analysis and design, SWMM modelling to analyze existing and proposed stormwater conditions, and overall site planning and grading. Oversaw shop drawing review for the project. Developed creative solutions to pipe and catch basin requirements.

- WINDMILL ROAD STORMWATER MANAGEMENT (DARTMOUTH, NS) – Provided civil design for stormwater management infrastructure on a parking lot upgrade, including creating a site grading plan and pipe profiles. In addition, provided site inspection services during construction.
- NOVA SCOTIA HOUSING – BAYERS WESTWOOD DOWNSPOUT DISCONNECTION STRATEGY (HALIFAX, NS) – Was involved in the civil design of a downspout disconnection strategy for a subdivision in Halifax. Included multiple site visits, survey review, and creating multiple downspout disconnection details. Finally, wrote a disconnection report that was sent to the client as the final deliverable.
- QUEEN ELIZABETH II GARAGE (HALIFAX, NS) – Provided design and drafting services to complete a draft site plan for a proposed parking garage, which was included in a design build tender package. In addition, provided design reviews at key project milestones.
- CORNER BROOK ACUTE CARE P3 ADVISORY (CORNER BROOK, NL) – Provided civil and municipal reviews of a 600,000 square foot hospital project, including project drawings and reports at key submission stages.
- PARRSBORO WELL DEVELOPMENT (PARRSBORO, NS) – Provided design and drafting services for all civil site works relating to connecting a new water supply pump to the Town water system. Created pump and system curves to determine pipe sizing requirements. Oversaw shop drawing review for the project.
- COLLEGE ROAD PEDESTRIAN SIDEWALK (BIBLE HILL, NS) – Provided civil design for a sidewalk replacement in Bible Hill, Nova Scotia. Prepared quantity take-offs for use in an opinion of probable cost.
- COLINS ROAD SIDEWALK (PORT WILLIAMS, NS) – Provided civil design for a sidewalk replacement in Port Williams. Including plan and profile layout, stormwater management, and quantity take offs for cost estimates.
- ULTRA CIVIL ENGINEERING (HALIFAX, NS) – Provided construction and design services for the relocation of a building storm water lateral located during construction.
- NUTTBY MOUNTAIN WINDFARM DRAINAGE (HALIFAX, NS) – Provided design and drafting services for the improvement of roadside drainage, including rational method calculations and SWMM modelling.
- IOC DNG CFB GREENWOOD (GREENWOOD, NS) – Provided Vehicle Tracking analysis of a proposed CNG station.
- TOWN OF MAHONE BAY TRANSPORTATION PLAN (MAHONE BAY, NS) – Provided design, drafting, and writing services for the Town of Mahone Bay Transportation plan.
- AGADA FACILITY (HALIFAX, NS) – Provided initial site planning and layout in C3D, including quantity take offs.
- MANUFACTURING SITE REVIEW (LUNENBURG, NS) – Provided initial site planning and layout in C3D, including options analysis, quantity take offs, and cost estimates.
- CUNARD BUILDING (HALIFAX, NS) – Provided stormwater and sanitary sewer calculations for the development.
- BURNSIDE HIGHWAY OPERATIONS BASE (HALIFAX, NS) – Provided initial site planning and layout in C3D.
- FSM YHZ PIPELINE REPLACEMENT (HALIFAX, NS) – Provided traffic management planning for a pipeline replacement.
- KINGS GROVE DEVELOPMENT (DARTMOUTH, NS) – Provided stormwater and sanitary sewer calculations for the development.
- DAL EVENTS CENTRE (DARTMOUTH, NS) – Provided stormwater and sanitary sewer calculations for the development.
- K+S WINDSOR PIPE DISCHARGE (PUGWASH, NS) – Provided survey coordination and schematic design of a pipe discharge for a saltwater mixing pond.

Prior to employment at CBCL, Alan worked for AECOM Canada Ltd. over the course of three years, accumulating over one year of industry experience. His roles and responsibilities were as follows:

TRANSPORTATION ENGINEERING INTERN – AECOM CANADA LTD. (BURNABY, BC, 2016-2019)

- SOUTH SHORE ACCESS PROJECT (VANCOUVER, BC) – Provided AutoCAD and Civil3D design support for the South Shore Access Project, including all public and private roadways connecting to the Centennial

Terminal. This included conceptual design of one elevated road structure, which included multiple spans over both road and rail. Roads were design to Transportation Association of Canada (TAC) standards, including supporting calculations. In addition, provided extensive rail yard design, layout, and optimization to support the terminal and accommodate roadway, client, neighbourhood, business, and tenant requirements.

- CENTERM EXPANSION PROJECT (VANCOUVER, BC) – Provided AutoCAD and Civil3D design support for the Centennial Terminal (Centerm) Expansion Project. Included terminal layout and optimization, container (TEU) calculations, and truck gate design. Fire protection was a consideration, including cost estimation of extended fire protection services. In addition, provided report writing and review for key project milestones.
- VANCOUVER LANDFILL RESIDENTIAL DROP OFF REDESIGN (DELTA, BC) – Provided AutoCAD and Civil3D design support, including quantity take offs for cost estimation, traffic analysis and road design, site grading, storm water management, sediment management, and site inspections.
- BCIT PARKING LOT REDESIGN (BURNABY, BC) – Provided Civil3D design services for the reconstruction of parking lots on the BCIT Burnaby Campus; including removals, grading, painting, and road design.
- SHELL CANADA PROGRAM (MULTIPLE, CANADA) – Provided conceptual design support for the redesign of Shell Canada properties across Canada, to both Shell and Municipality standards.
- VANCOUVER GENERAL HOSPITAL HELIPAD CONCEPTUAL DESIGN (VANCOUVER, BC) – Provided conceptual design services, through Civil3D, to show multiple redesign options for the Vancouver General Hospital Helipad. This included adhering to Transport Canada guidelines, and Canadian Aviation Regulations, to ensure proper horizontal and vertical clearances to potential future structures for all proposed options.



Allan BEATON, EIT

CIVIL ENGINEER IN TRAINING



AREAS OF SPECIALTY

Heavy Civil Construction

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

Engineer in Training, Engineers Nova Scotia

EDUCATION

2019 Bachelor of Civil Engineering, Dalhousie University, Halifax, Nova Scotia

2017 Diploma in Engineering, Dalhousie University, Halifax, Nova Scotia

COURSES AND SEMINARS

- Emergency first AID CPR "A" & AED.
- Fire Safety Awareness.
- WHMIS 1988/2015.
- Defensive Driving (light vehicle).
- Trenching & Excavating Awareness.
- Confined Space Entry.
- Gas Line Awareness.
- Power Line Hazards.
- Accident Investigation.
- Due Diligence in OHS.
- Hazard Identification, Assessment and Control.

EXPERIENCE

Mr. Beaton is a Civil Engineer in Training with three years of experience. He has worked on the following projects:

- CBRM Sewer Separation -Valley
- CBRM Sydney Harbour West Sewer Separation Study
- Sydney Airport Access Road Repairs
- CBRM Washbrook Pond 5 Design & Construction Support
- CBVRCE Sydney River Elementary Bus Loop & Drop-Off
- Holy Angels Site Works Design

RELEVANT EMPLOYMENT EXPERIENCE

CBCL Limited, Junior Municipal Engineer.

- Drafting, site work and support in Engineering design on Municipal Projects.

Grey Rock Mining, Project Coordinator (7-months).

- Operation of mining/civil construction activities at Tata Steel Minerals Mine.

Dexter Construction, Project Coordinator (4-months)

- Construction of the Jetty NJ at the Canadian Forces Base Halifax and Barrington Street retaining wall.

Municipality of the County of Inverness, Student Engineer (3.5-months)

- Management, maintenance and operation of Inverness County municipal services.



Sarah Ensslin

M.Sc., P.ENG.
PROCESS ENGINEER



AREAS OF SPECIALTY

Wastewater Treatment

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

Registered member of Association of Professional Engineers of Nova Scotia (APENS)

Member of Atlantic Canada Water & Wastewater Association (ACWWA)

EDUCATION

2005 M.Sc. (Water and Waste Engineering), Loughborough University, Loughborough, UK, 2005

2004 BSc.E. (Chem. Eng.), University of New Brunswick, Fredericton, Canada, 2004

EXPERIENCE

Ms. Ensslin is a Process Engineer with over 15 years of experience in wastewater treatment design. She is currently working on several wastewater treatment plant projects and one water treatment project, ranging from preliminary design to under construction. She carefully considers the needs of stakeholders and the environment in her design projects.

Ms. Ensslin worked as a project engineer for the water utility Severn Trent Water in Birmingham, UK, for four years after graduating from her Masters' program. Ms. Ensslin's responsibilities include design of municipal, institutional and industrial wastewater treatment systems.

Relevant projects that Ms. Ensslin has participated in are as follows:

- WABUSH INDUSTRIAL PARK WWTP, WABUSH, NL – Technical support as Owner's Engineer on Design-Build project including data analysis and writing Owner's Statement of Requirements (2019–ongoing).
- GANDER WWTP, GANDER, NL – Technical support as Owner's Engineer on Design-Build project including data analysis and writing Owner's Statement of Requirements, for WWTP consolidation (2015–ongoing).
- SYDNEY HARBOUR WEST WWTP, SYDNEY, NS – Predesign of new WWTP for a community that currently has three separate outfalls (2019–ongoing).
- SEVEN WWTPS PREDESIGNS IN CBRM, CAPE BRETON, NS – Predesign of four new WWTPs for communities in CBRM, including several requiring outfall consolidation (2019–ongoing).
- LUNENBURG WWTP AERATION AND PROCESS SUPPORT, LUNENBURG, NS – Detailed design of replacement aeration system for bioreactor, and process support for WWTP process (2019–ongoing).
- COME BY CHANCE WASTEWATER TREATMENT PLANT, COME BY CHANCE, NL – Preliminary Design Study for WWTP project (2018–2019).
- LUNENBURG WASTEWATER TREATMENT PLANT, LUNENBURG, NS – Study to assess existing infrastructure at the Lunenburg Wastewater Treatment Plant in order to improve the treatment processes (2018–2019).
- POUCH COVE WTP, POUCH COVE, NL – Predesign, detailed design, and process construction observation for membrane water treatment plant in Design-Build project as Designer (2018–ongoing).
- PARADISE WWTP UPGRADES, PARADISE, NL – Predesign, detailed design, and process construction observation of headworks, primary treatment and UV disinfection (2017–ongoing).
- PROSPECT ROAD ELEMENTARY SCHOOL WASTEWATER TREATMENT PLANT, HATCHET LAKE, NS – Predesign, detailed design, and construction administration of an on-site wastewater system pump station to replace existing equipment (2018–ongoing).

- COBEQUID PASS WASTEWATER TREATMENT PLANT STUDY, GREAT VILLAGE, NS – Preliminary design study and detailed design to increase the plant capacity, currently under construction (2017– 2018).
- UPPER MUSQUODOBOIT ELEMENTARY SCHOOL WASTEWATER TREATMENT PLANT, UPPER MUSQUODOBOIT, NS – Predesign, detailed design, and construction administration of upgrades to a 5 m³/d intermittent sand filter wastewater treatment system (2018).
- EASTERN SHORE MEMORIAL HOSPITAL WASTEWATER TREATMENT PLANT, SHEET HARBOUR, NS – Predesign, detailed design, and construction administration of a 45 m³/d recirculating textile filter wastewater treatment system to replace existing package plant (2017–2018).
- VOYAGEUR LAKES STP EXPANSION STUDY, HAMMONDS PLAINS, NS – Preliminary design study to identify options to double the plant capacity (2017– 2018).
- SYSTEM ASSESSMENT REPORTS AND OPERATIONS MANUALS, NOVA SCOTIA HEALTH AUTHORITY, NS – Eastern Shore Memorial Hospital and Twin Oaks Memorial Hospital (2017–2018).
- SAMBRO ELEMENTARY SCHOOL WASTEWATER TREATMENT PLANT, SAMBRO, NS – Predesign, detailed design, and construction administration of a 5 m³/d recirculating textile filter wastewater treatment system to replace existing package plant (2016–2017).
- TANTALLON ELEMENTARY SCHOOLS WASTEWATER TREATMENT PLANT, TANTALLON, NS – Predesign, detailed design, and construction administration of a 20 m³/d recirculating sand filter wastewater treatment system to replace existing package plant (2016–2017).
- SYSTEM ASSESSMENT REPORTS, HALIFAX REGIONAL SCHOOL BOARD, NS – Middle Musquodoboit Elementary School, Duncan MacMillan High School, Five Bridges Jr. High School, and Hammonds Plains Elementary (2016–2017).
- OPERATIONS MANUAL, CONQUERALL BANK, NS – Writing Standard Operating Procedures for an existing recirculating textile filter wastewater treatment plant (2017).
- TUSKET BREWERY WASTEWATER INVESTIGATION, TUSKET, NS – Predesign study of wastewater pre-treatment options for a craft brewery start-up. (2017).
- ICCS CLINIC/EHS BACKUP SITE, FALL RIVER, NS – System Assessment Report and Operations Manual for WWTP, as well as contract administration of refurbishment (2016).
- ÉCOLE LA-BELLE-CLOCHE ON-SITE WASTEWATER SYSTEM, FORTUNE BRIDGE, PEI – Design of on-site system including sloping sand filter for school refurbishment (2016).
- ABEGWEIT FIRST NATION WASTEWATER MANAGEMENT, SCOTCHFORT, PEI – Predesign and detailed design of an effluent gravity sewer, recirculating textile filter treatment system, and dispersal field for a community with failing septic systems including discussions with community leaders and government agencies (2016).
- WABUSH WSER COMPLIANCE, WABUSH, NL – Operations guide for coming into compliance with the WSER regulations (2016).
- MIAWPUKEK FIRST NATION SCHOOL WASTEWATER TREATMENT PLANT, CONNE RIVER, NL – Design of recirculating textile filter wastewater treatment system for new-build school (2016).
- BROAD COVE CAMPGROUND WASTEWATER TREATMENT PLANT, BROAD COVE, NS– Detailed design and construction administration of a 42 m³/d recirculating textile filter wastewater treatment system to replace existing septic system (2016).
- ROSS ROAD SCHOOL WASTEWATER TREATMENT PLANT, WESTPHAL, NS – Predesign, detailed design, and construction administration of a 14 m³/d recirculating textile filter wastewater treatment system to replace existing package plant (2015-2016).
- FALMOUTH WWTP CLARIFIER AND AERATION ASSESSMENTS, FALMOUTH, NS– Assessment of frozen clarifier and existing aeration capacity and suitability (2015).



Alexander WILSON

M.ENG., P.ENG.
SENIOR WATER RESOURCES ENGINEER



AREAS OF SPECIALTY

Water Resources and Environmental Engineering:
Flood Protection, Stormwater Management and Low Flow Assessments, Sustainable Stormwater and Wastewater Management, Receiving Water Quality Studies and Coastal Engineering.

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

Member of the Association of Professional Engineers of Nova Scotia (Since 2003)
Member of the Canadian Water Resources Association
Member of the Atlantic Canada Water and Wastewater Association
Member of the Canadian Green Building Council
Member of the Institution of Civil Engineers, London
Associate of the City and Guilds Institute, London
Dalhousie University Part Time Lecturer: Hydraulics course, 3rd and 4th year Civil Engineering

EDUCATION

First Class Honours Master of Engineering degree in Civil Engineering, 1998, Imperial College of Science, Technology and Medicine, London.
Final year of studies in Grenoble, France, 1998, in the Ecole Nationale Supérieure d'Hydraulique et de Mécanique de Grenoble, Institut National Polytechnique de Grenoble.

AWARDS

2020 Canadian Consulting Engineering Award of Excellence for the Northwest Arm Trunk Sewer Rehabilitation in Halifax
2020 Canadian Institute of Planner's Award for Planning Excellence for the Town of Wolfville Comprehensive Planning Document Review
2019 Lieutenant Governor's Award for Excellence in Engineering – for the Sullivan's Pond Outlet Renewal (Sawmill Creek Daylighting) project
2016 Lieutenant Governor's Award for Excellence in Engineering - Honourable Mention for the Truro Flood Risk Study
2015 Lieutenant Governor's Award for Excellence in Engineering – Sydney Tar Ponds and Coke Ovens Site Remediation
2013 Tree for Life Award - Sydney Tar Ponds and Coke Ovens Site Remediation

EXPERIENCE

Mr. Wilson has over 22 years of experience as a water resources engineer in Europe, Africa and Atlantic Canada, including stormwater and wastewater management and planning studies, design of stormwater and sanitary infrastructure, and water quantity and quality assessments.

Since joining CBCL, Mr. Wilson has been able to gain varied experience in water resources projects, which includes:

FLOOD CONTROL STUDIES, GUIDELINES AND STRUCTURE DESIGN

- NATIONAL RESEARCH COUNCIL: GENERATION OF DATA TO SUPPORT NEW BUILDING CODES FOR FLOOD-RESILIENT INFRASTRUCTURE (2020): Updated existing models, conducted comprehensive statistical analyses to develop rainfall depths and coastal water level events with return periods of up to 1 in 2500 years. Generated flood extents and velocities for input to flood load calculations. Role: Project Manager.

- NOVA SCOTIA DEPARTMENT OF MUNICIPAL AFFAIRS AND HOUSING: FLOOD MAPPING SPECIFICATIONS AND GUIDELINES (2020): Developed Flood Mapping Specifications with the provincial department to improve consistency of flood mapping throughout the province. Also developed a Flood Mapping Guideline document to support Municipalities in using the specifications and procuring flood mapping services. Role: Project Manager.
- WINDSOR CAUSEWAY ABOITEAU REPLACEMENT DESIGN (CURRENT): This site has extremely complex sediment movement patterns, including sand and cohesive silt, shaped by the 16m Bay of Fundy tides. Supported with a series of experts in the local processes from Acadia, Dalhousie, Saint Mary's university and the Bedford Institute of Oceanography, 3D finite element models that include salinity and sediment concentration effects on water density were calibrated on several Acoustic Doppler Current Profilers that measured velocity and sediment concentration through the water column during several tidal cycles. Role: Hydrotechnical and Environmental Lead.
- SHUBENACADIE LAKES FLOOD MAPPING STUDY (2020): This study area is unique in that it includes a series of large lakes with very shallow slopes. A combination of gauged data and anecdotal water levels was used to calibrate the dynamic PCSWMM model. Seasonal effects were evaluated, as well as effects of development and climate change on the potential extents of the floodlines. Role: Project Manager.
- TRURO DYKE MANAGED REALIGNMENT FOR NATURE BASED FLOOD PROTECTION (CURRENT): Based on the Truro Flood Risk Study, NSDA and NSTIR are realigning the Truro Dykes along the outer boundary of the floodplain to reduce flooding risks and restore salt marsh. Modelling was included to investigate erosion risks, minimize dredging maintenance and adjust drainage paths. Role: Project Manager for the modelling project.
- ANTIGONISH FLOOD MAPPING STUDY (2020): Hydrologic and hydraulic modelling involved water level gauging, ice jam modelling and calibration of model results against a map of anecdotal evidence of the 2003 flood event. Role: Project Manager.
- CHAPEL ISLAND FLOOD AND EROSION PROTECTION STUDY AND DETAILED DESIGN (2019): This fascinating project involved protecting First Nation sacred heritage at risk of being washed away along the eroding coastlines of the island. The proposed solution was a Nature-Based Design that involved shoreline restoration, salt marsh restoration, eelgrass habitat restoration and a living breakwater to enhance oyster habitat, all contributing to sustainably protect the shores from wave attack and sea level rise. Role: Project Manager.
- LUNENBURG AND CHESTER INLAND FLOOD MAPPING STUDY (ONGOING): Modelling and flood mapping of all inland watercourses in Lunenburg and Chester counties, including the LaHave River. Role: Project Manager.
- NATIONAL RESEARCH COUNCIL: STATUS OF FLOOD MAPS IN THE ATLANTIC CANADIAN PROVINCES (2017): Comprehensive review of the historic development of flood maps throughout Atlantic Canada, including details of modelling approaches, software, results produced, and types of flood maps prepared. Role: Project Manager.
- SACKVILLE RIVERS FLOODPLAIN MAPPING STUDY, PHASE II (2017): This project involved extensive hydrologic and hydraulic modelling with individual calibration for each season. Ice Jam risks and climate change impacts were taken into account. Best Management Practices and river restoration were among the main recommendations. Follow up work includes presentations to stakeholders and modelling potential flood mitigation options. Role: Project Manager.
- TRURO FLOOD RISK STUDY (2017): Most comprehensive study of its kind ever undertaken in Atlantic Canada, including extensive stakeholder consultation, 1D, 2D and 3D modelling of Runoff, Tides, Sediment and Ice Jams. Floodlines were delineated, climate change considerations were included and more than 40 flood mitigation options were modelled and ranked to produce a capital works plan. Role: Project Manager.
- EAST KENTVILLE FLOOD STUDY (2016): This Bay of Fundy study involved a detailed analysis of tidal intrusion and sea level rise influence on flood risks, as well as risks of ice jam and high runoff on flood

levels. A range of flood mitigation options were evaluated and ranked to put forward a flood protection capital works plan. Role: Project Manager.

- CLIMATE CHANGE COASTAL ADAPTATION GUIDANCE (CBCL AND UPEI, DALHOUSIE U. SCHOOL OF PLANNING, ST MARY'S U. AND NSE, FOR ATLANTIC CLIMATE ADAPTATION SOLUTIONS ASSOCIATION, 2014-15): Developed guidance for a set of 20+ engineering options for mitigating coastal flooding and erosion impacts from sea level rise. The guidance is being integrated in an online decision tool for the selection of sustainable coastal adaptation strategies. CBCL is working with Universities and all 4 Atlantic Provinces to test the tool in pilot communities. Role: Project Manager backup.
- FALMOUTH STORMWATER MANAGEMENT AND FLOOD REDUCTION STUDY (2016): Falmouth borders the Avon River on the Bay of Fundy, which is controlled by an actively managed NSDA tide gate at the Windsor Causeway, impacting drainage capacity. The entire Falmouth drainage system was assessed with a 2D flood model to produce flood reduction alternatives, including a comprehensive analysis of stormwater Best Management Practices. Role: Project Manager.
- SACKVILLE DRIVE FLOOD REDUCTION STUDY (2012): This study on the Little Sackville River included 2D hydrodynamic modelling to review a range of potential culvert configurations to support detailed design of the replacement of this structure. Various hydraulic openings were evaluated to ensure no increase in flooding risks were caused, and that any risk to existing upstream or downstream infrastructure was reduced. Role: Project Manager.
- BROAD BROOK FLOOD MITIGATION STUDY AND DETAILED DESIGN OF CULVERT UPGRADES (ONGOING): Detailed assessment of the Broad Brook in Yarmouth to assess flooding risks, and proposed changes to the river system, including several culvert upgrades and road configuration to reduce flooding risks including potential Climate Change impacts. Role: Project Manager.
- SULLIVAN'S POND OUTLET PIPE RENEWAL / DAYLIGHTING OF SAWMILL CREEK (2018): This award winning project has increased flood protection, allowed fish passage, and notably improved the aesthetics of this Downtown Dartmouth area. This included 2D modelling of the surface flows, in combination with the sea level assessment in the Halifax Harbour. Climate change considerations were taken into account for both flows and harbour levels. Role: Hydrotechnical Lead.
- MAHONE BAY FLOOD PREVENTION AND SHORELINE ENHANCEMENT PLAN (2016): This project involves preparing the town, and especially its waterfront, to the impacts of Climate Change. In addition to including detailed modelling of sea levels, waves as well as 2D river flooding, the plan aims to enhance the waterfront's enjoyment and experience by the residents and tourists. This includes access, pathways, vistas, and coastal habitat creation and restoration. Role: Hydrotechnical Lead.
- ESKASONI FIRST NATION FLOOD MITIGATION STUDY (2017): This study involved a 2D PCSWMM model of 5 rivers placing the community at risk, as well as a 2D Oceanographic model of the Bras D'Or Lakes to understand the seiching (Bay of Fundy effect) impacts on the unusually high water levels experienced at the site. Flood mitigation measures were ranked by cost-efficiency in a short and long term Capital Plan. Role: Project Manager.
- EAST HANTS FLOODPLAIN MAPPING STUDY (2013): This analysis included gathering LiDAR data and aerial photography, to assemble a detailed model of the Shubenacadie River from Grand Lake through Enfield, Elmsdale, Lantz and Shubenacadie (46 km). The study included an analysis of Bay of Fundy tidal intrusion and Ice Jam modelling, using a combination of the SWMM and HEC-RAS hydraulic models. The project included a presentation to council during a public hearing to implement the floodlines as part of the revised Municipal Planning Strategy. Role: Project Manager.
- LAPLANCHE RIVER ABOITEAU DESIGN IN AMHERST (2017), which involved the design of a new tidal control structure downstream of the existing aboiteau, that reduces current flooding risks from the 134km² tributary watershed and the 16m range Bay of Fundy Tides. Sedimentation rates around the proposed structure were investigated with a 3D finite element model to minimise the risks of siltation. Role: Hydrotechnical Lead.
- HYDRAULIC DESIGN OF CHANNELS THROUGH THE SYDNEY TAR PONDS (2008) contaminated estuary (2.2km long) to isolate fresh water from contaminated areas, and ensure no increased risks of flooding in downtown

Sydney. This design followed one year of flow and water level gauging at three locations, which was used to calibrate a detailed hydraulic model of the tidal estuary. Role: Hydrotechnical Lead.

- Detailed hydraulic modelling of a **250 MW combined Wind/Hydro power project (2009)** in Lake Uist, Cape Breton. The study included the long term impacts on water levels and flows in the entire lake and river system, as well as impacts on the temperature and water quality stratification produced by the extraction and release of 4 million m³ each day. 3-D finite element model MIKE3 (Danish Hydraulic Institute) was used for this study. Role: Hydrotechnical Lead.
- MEADOWVIEW FLOOD STUDY (2012): Flooding assessment, 1 in 100 year and 1 in 20 year floodline delineation and review of flood protection options (with costs) for the Cornwallis River Community close to Kentville. Options included berms, culvert upgrades, pumping, raising the riverfront road, and raising the houses. Role: Project Manager.
- FALES RIVER FLOOD STUDY (2010) IN GREENWOOD: Investigated 1 in 100 year and 1 in 20 year flooding risks, with floodline delineation, and investigation of several flood protection options, including widening bridge spans, building a berm, pumping, raising private properties, and storing peak flows. Role: Project Manager.
- FALES RIVER BERM DESIGN (2011): Detailed design and construction of a 500m, 3m high flood protection berm, complete with keyway and 70 Hp pumping system, to protect the Fales River Subdivision residents. Role: Project Manager.
- ENERGY DISSIPATION STRUCTURE ANALYSIS AND DESIGN IN PUEBLO VIEJO (2015) for a dam diversion channel in the Dominican Republic, to dissipate flow energies reaching 6 m/s, at a flow of 11 m³/s. Various configurations were analysed using a 3D finite element model (DHI MIKE3) for optimal efficiency. Role: Hydrotechnical Lead.
- Detailed study of the 60m long weir control structure and tidal influence on the BOAT HARBOUR LAGOON (2005), according to various types of control systems at the mouth of the lagoon. Effluent dispersion modelling in the lagoon was also studied. This was made using the PC-SWMM and MIKE3, DHI's 3-D finite element computer program. Role: Hydrotechnical Lead.
- BOWATER DAM INVESTIGATION (2003) AT NICKERSON'S POND, including a high spillway design, a yield assessment, and a low fish flow maintenance system. Also included the estimation of the 1 in 100, 1 in 1000 year and Probable Maximum Precipitation and Flood events, to estimate the Inflow Design Flood. Role: Project Manager.
- DAM FLOODING ASSESSMENT AND YIELD ASSESSMENT OF THE MILL LAKES IN WINDSOR (2003), with a detailed survey of the lakes and control structure, a rainfall statistical analysis and a long term hydrologic model using PCSWMM, using daily precipitation records. Calculation of the 1in 100, 1 in 1000 and Probable Maximum Flood events. Role: Project Manager.

STORMWATER MANAGEMENT

- YARMOUTH HAWTHORNE ST BMP DESIGN (2015): This detailed design for street servicing and beautification (close to the Ferry terminal) called for a highly aesthetic design, which could also eliminate stormwater ponding, with no stormwater system present. BMPs were integrated in the street design with rain gardens and permeable pavers. The system is functioning extremely well with no issue following 2 winters. Role: Project Manager.
- YARMOUTH BROAD BROOK RESTORATION AND CAPACITY ENHANCEMENT (ONGOING): this project aimed to reduce flooding risks to local residents by increasing capacity, while obtaining regulatory approvals for working with the river. The project was therefore designed as a self-compensating project, as through the widening of the river, introduction of meanders, pools, riffles and islands, more wetland, fish and bird habitat is created than existed previously. Role: Project Manager.
- KENTVILLE STORMWATER MANAGEMENT PLAN (2015): Assessment of peak flows for 1 in 5 to 1 in 100 year events throughout the Town, with calculation of associated culvert sizes for each flows. Climate Change impacts were taken into account, as well as a pre-development scenario, to estimate the

potential benefits of implementing stormwater Best Management Practices (BMPs). BMPs were recommended for each area of the Town based on land zoning and soil type. Role: Project Manager.

- SETON RIDGE (MOTHERHOUSE LANDS) SOUTHWEST PROPERTIES 63-ACRE LEED-ND STORMWATER MANAGEMENT PLAN (ONGOING), ongoing: aims to reduce stormwater runoff below pre-development levels, and includes Best Management Practices in the form of infiltration swales, green roofs, rain gardens and permeable paver surfaces. The design achieved zero-runoff from the site for a 95 percentile event. Role: Project Manager.
- YARMOUTH KEMPT ST BMP DESIGN (2018): This project involves the review and identification of the most suitable BMP options to control stormwater from a site that is not connected to a stormwater system. BMP features will control runoff and increase the value of the site for development. Role: Project Manager.
- NUMEROUS WATER DETENTION FACILITIES ASSESSMENT AND DESIGN, both for Municipalities and Private Owners, including ten in Burnside, four in Fredericton, a stepped network detention system within the Larry Uteck Interchange and many others throughout the maritimes provinces. Role: Project Manager.
- STORMWATER MANAGEMENT PLAN OF THE ELLENVALE RUN, DARTMOUTH (2003), which included flow monitoring and a house to house survey. A SWMM model was assembled and calibrated on the field measurements to estimate flooding risks, as well as impacts of a number of stormwater controls, including storage and capacity increases. Role: Hydrotechnical Lead.
- WINDSOR WATERSHED MASTER DRAINAGE PLAN AND HYDRAULIC ASSESSMENT OF TWINNING THE HIGHWAY 101 (2003). Calculation of peak flows and assessment of various options to reduce flooding problems, using the PCSWMM hydraulic model. Role: Hydrotechnical Lead.
- WATER AVAILABILITY STUDY IN THE PEREAUX AND HABITANT WATERSHEDS (2003) OF THE ANNAPOLIS VALLEY, which included a low flow analysis, an irrigation water availability analysis and an analysis of potential water storage systems to irrigate sufficiently during the growing season. Role: Hydrotechnical Lead.
- STRATFORD STORMWATER MASTER DRAINAGE PLAN (2003): More than 300 watersheds were delineated and studied for this assessment. Peak 1 in 20 and 1 in 100 year flows were calculated, and the capacity of all the structures was estimated. Floodlines were delineated upstream each structure with insufficient capacity, and upgrades were calculated and recommended where applicable. Role: Hydrotechnical Lead.
- DESIGN OF A NETWORK OF WATER RETENTION STRUCTURES TO HOLD POST-DEVELOPMENT FLOWS (2004) around the Trans-Canada Highway development, in Kel-Mac, Prince Edward Island (using the OTTHYMO program). Role: Hydrotechnical Lead.
- STUDY OF FUTURE DEVELOPMENT IMPACTS (2003) on water quantity and quality and estimation of future water drainage and retention infrastructures needed for **10 Greenfield sites around Halifax**. Measures needed to preserve the lake and river water quality through development were also studied. Role: Hydrotechnical Lead.
- WOLFBURG STORMWATER MANAGEMENT PLAN (2003): Approximately 50 watersheds were delineated inside the entire Town, through the urban and rural areas culverts and stormwater systems below capacity were identified, and options for either upgrades, or retention ponds, were calculated and recommended. Future development was also taken into account. Role: Hydrotechnical Lead.

STORMWATER / SANITARY INFRASTRUCTURE ANALYSIS

- HALIFAX WASTEWATER FUNCTIONAL PLAN (2012): Modelling of the entire Halifax Water wastewater and combined pipe, pumping station and CSO system, for all pipes 300mm diameter and greater. The model was calibrated on more than 100 flow gauging sites, and model runs included 50 year analyses to estimate long term frequency and volumes of overflows at each overflow point.
- CBRM WASTEWATER/STORMWATER SYSTEM MODELLING IN SYDNEY (2014) to support the design of CSO structures using the SWMM model. Included an analysis of climate change impacts on future flows in the system, based on an analysis of precipitation changes from Environment Canada climate change models.

- DETAILED MODELLING OF THE HALIFAX AND DARTMOUTH STORMWATER SYSTEMS (2006) for the design of Combined Sewer Overflow Chambers for the Halifax Harbour Solutions project. More than 1500 pipes were modelled with pumps, weirs, tides and tide gates, using the PCSWMM model. Hourly rainfall data was used for 40-year continuous modelling of the systems, with statistical analyses.
- FURTHER ANALYSIS OF THE HALIFAX PENINSULA COMBINED STORMWATER/SANITARY SYSTEM (2010) with SWMM5, calibrated on 15 flow gauging sites, for a long term assessment of options to eliminate overflows of untreated wastewater to the harbour. Options included wet weather satellite treatment, storage, pipe separation and I/I reduction in areas already separated.
- INFLOW / INFILTRATION ASSESSMENT FOR MULTIPLE SEWERSHEDS IN THE HRM (2006-2015). Areas studied included Ellensvale (Dartmouth), Eastern Passage, the entire sewershed tributary to Dartmouth Cove (~2200 pipes), and 6 small sewersheds tributary to pumping stations. Field data collection included . All the field data was used to calibrate SWMM sewer system models to predict risks of capacity problems, overflows, and impact of proposed recommendations.

HYDRAULIC DESIGN OF BRIDGES AND CULVERTS

- LARGE NUMBER OF FLOOD AND HYDRAULIC OPENING STUDIES TO SUPPORT BRIDGE DESIGNS AROUND NOVA SCOTIA AND NEW BRUNSWICK (2017-2019): Cranton River Bridge, Nine Mile River Bridge (HWY102), Veinot Bridge, Joliff's Bridge, Eager Bridge, Banks Bridge, Weymouth Falls Culverts. Models included 1D or 2D hydrodynamics with water level and velocity analyses, sizing of hydraulic opening and scour protection. Role: Project Manager.
- TENNYCAPE RIVER BRIDGE HYDRAULIC DESIGN (2019): This bridge is located on the coast of the Bay of Fundy, and subject to wide sediment level fluctuations. 2D cohesive sediment modelling was added to the hydrodynamic modelling to propose a safe design for erosion protection, avoiding silt buildup, fish passage and upstream salt marsh restoration. Role: Project Manager.
- CORNWALLIS RIVER BRIDGE HYDRAULIC DESIGN (2016): Hydraulic Design of the new **tidal river crossing** to ensure no increase in flooding risks to downtown Kentville. The hydraulic design therefore widened the bridge span from 40 to 80m and included a "floodway" channel. Design of the floodway included a naturalised **scour protection system with Turf Reinforcement Mats and Salt Marsh Plants**.
- ARGYLE ST CULVERT REPLACEMENT (2016): Hydraulic and Detailed Design of 2 additional box culverts on the Yarmouth Broad Brook. In order to achieve best cost-effectiveness in a short construction and environmental permitting window, the existing culverts were left in place and supplemented with 2 additional box culvert structures.
- JARVIS RD BOX CULVERT DESIGN (2017): the culvert was designed to control the high flows that overtopped the gravel road and reached a private property. A low profile box culvert was designed with a downstream channel, lined with naturalised scour protection systems (Turf Reinforcement Mats) to redirect the high flows away from the private property, checked with a 2D hydraulic model.
- PARKS CREEK BRIDGE HYDRAULIC DESIGN (2016): The hydraulic opening of this tidal bridge was designed to handle sea level rise and peak tidal flows, as well as scour velocities. The analysis was carried out with a 3D finite element model (MIKE3) to assess the peak risks and design the riprap cost-effectively.
- MORRIS ISLAND BRIDGE HYDRAULIC DESIGN (2014): This bridge is under the influence of high flows created by a slight difference in the timing of the tide. Peak tides, storm surges, waves and climate change were included in this assessment of hydraulic opening and scour protection. A 3D finite element model (MIKE3) was used to resolve the complex flow patterns in the area.
- DETAILED DESIGN OF 1830 X 5490MM SHAW SPAN CULVERT ON THE CABOT TRAIL (2013), including 3D Finite Element hydrodynamic modelling of inlet and outlet velocities to optimise riprap protection. Three locations and 8 options for each were reviewed, and fish passage considerations were also taken into account.
- CULVERT DESIGN WITH FISH PASSAGE BAFFLES (2008) and downstream pools, on the Stillwater Brook Culvert (3570x2185mm) on the Cabot Trail, on the Coke Oven Brook in Sydney(15m wide baffles), and in the Stellarton Business park (2x1800mm culverts).

- HYDRAULIC ANALYSIS FOR THE CHÉTICAMP BRIDGE REPLACEMENT (2009) Project (82 m span) on the Cabot Trail. This included hydrologic analysis of 1 in 100 year peak flows, hydraulic analysis using HEC-RAS, Ice Jam analysis using the USACE methodology, and scour analysis.
- HYDRAULIC ANALYSIS FOR THE SOUTH RIVER BRIDGE (2010) (130m span), Antigonish, for the HWY 104 twinning project. The project included hydrologic analysis for 1 in 100 year peak flows, detailed modelling of the river using HEC RAS and floodplain mapping using LiDAR data.
- HYDRAULIC ANALYSIS FOR THE MIDDLE BARACHOIS RIVER (2010) ON THE TRANS-CANADA HIGHWAY. This included 1 in 100 year peak flow analysis (using the NL Environment methodology), hydraulic analysis with HEC-RAS, Ice Jam analysis and scour analysis using MIKE3.
- HYDRAULIC ANALYSIS ON THE LITTLE BRAS D'OR BRIDGE IN CAPE BRETON (2011), HWY 105, with tidal modelling of Bras-D'Or Lakes to estimate peak flows and water levels (using SWMM), Ice Jam analysis, and scour analysis (MIKE3).
- HYDRAULIC DESIGN OF HIGHWAY CULVERTS INCLUDING OVER 100 STRUCTURES ON HIGHWAY TWINNING PROJECTS (2005-ONGOING) (ANTIGONISH HWY 104, LARRY UTECK INTERCHANGE HWY 102, SYDNEY HWY 125), which include considerations for erosion protection, wetland protection and fish passage.
- DETAILED ANALYSIS OF THE WATERFORD RIVER (2003) (St JOHN's) including floodline delineation and upgrade of three bridges, using the programs OTTHYMO, HEC-HMS and HEC-RAS.

LOW FLOW / YIELD ASSESSMENTS AND WATER QUALITY

- FLETCHER'S LAKE WATER WITHDRAWAL APPLICATION FOR HALIFAX WATER: which included a low flow analysis of the Shubenacadie River System and a long term model (SWMM) to estimate the yield of the river.
- LOW FLOW AND RECEIVING WATER ANALYSIS IN THE JOHNSON RIVER which receives effluent from the AeroTech WWTF. The SWMM, MIKE11 and MIKE3 models were used to study its hydrology and water quality during low flow periods. The river and lake model extended from the Johnson River to the Shubenacadie River below Bennery Brook, and included a long term (40 years) assessment.
- YIELD ASSESSMENT FOR SNIDE'S LAKE, water supply source for the town of Shubenacadie, East Hants. The long term model included groundwater, snowfall and snowmelt.
- PRE-DESIGN OF LOW-HEAD DAM ON THE SHUBENACADIE RIVER, with a fish ladder, which included a detailed model of the Grand Lake and Shubenacadie River. The study included a yield assessment and flood flow estimations, including floodline delineation.
- PRE-DESIGN OF A LOW HEAD "ENGINEERED SPRING" pumping station to enhance low flows in the Shubenacadie River. This involved detailed river surveys and comprehensive modelling of the system.
- YIELD ASSESSMENT FOR THE CITY OF SAINT JOHN, NB, FOR THE SPRUCE LAKE. A long term model (85 years) using daily rainfall data was made using the new EPA SWMM 5 model. Evaporation, seepage, runoff and water withdrawals were included in the analysis.
- WATER WITHDRAWAL APPLICATION FOR THE TOWN OF STELLARTON, which included a low flow analysis of the East River and a long term model (SWMM) to determine the yield of the river. Design of a berm structure across the river was also part of the study.
- RECEIVING WATER ANALYSIS IN THE MAGAGUADAVIC RIVER ESTUARY, using the finite element model CE-QUAL-W2 -This included tidal, temperature and salinity effects on BOD5, DO, TSS, N, P, NH3 and Fecal Coliform, calibrated with 20 water samples.
- RECEIVING WATER ANALYSES, STUDYING THE PARAMETERS OF BOD5, DO, TSS, N, P CONCENTRATIONS AND FECAL COLIFORM COUNTS -These were made on the Nine Mile River and the Cornwallis River, using the program WASP5.

CURRENT AND SEDIMENT TRANSPORT STUDIES

- CURRENT AND SEDIMENT TRANSPORT AND DEPOSITION ANALYSES IN THE SAINT JOHN HARBOUR, where the Saint John River flows compete with the highest tides in the world. 3-D finite element model MIKE3 was used to study the very complex current and sediment regime of the harbour, including stratification and density effects.

CONTAMINATED SITE ASSESSMENT

- HYDRAULIC ASSESSMENT OF THE DEVCO REMEDIATION SITE AT THE DONKIN MINE, which included long term flow and water level monitoring at 3 sites, with permanent systems. The hydraulic analysis intends to show the impact of the mine dewatering activities on the hydraulic regime of the area, and the potential connection between two wetlands, where one is affected by the dewatering process.
- HYDRAULIC ASSESSMENT OF THE DEVCO REMEDIATION SITE AT DOMINION 4, DOMINION 6 AND GOWRIE SITES. The assessment included design of stormwater detention and settling ponds, as well as cap drainage and terracing system.

Prior to joining CBCL Limited in April 2002, Mr. Wilson was employed as a Civil/Hydraulics Engineer at Simon & Christiansen in Luxembourg. Project experience, largely international, included:

- FLOOD RELIEF AND REHABILITATION PROJECT OF PIKINE, IN SAINT-LOUIS, SENEGAL (POP. 50,000) AND OF KHOUMA, RICHARD-TOLL (POP. 20,000). The aim of the project was to provide a lasting protection system against the recurring floods, design the road system and water supply and treatment infrastructure. The project involved hydraulic analyses, including statistics on rainfall and river heights, ground infiltration, and the design of the stormwater system, including tide gates, culverts and a 230 000m³ retention pond. A septic tank network system was also included in the design.
- FLOOD PROTECTION STUDY IN BENIN of a 600 ha watershed with 9km of canals, including an 8m wide culvert under the 35m wide Godomey-Akossombo road.

His final year project in Grenoble, France, for Imperial College, involved a **900m² moving bed scale model of the Mont Saint-Michel mudflats** at the Laboratoire National d'Hydraulique at SOGREAH Ingenierie. The erosion potential of “flush tests” was analysed by backing up freshwater in the Couesnon River and releasing it during low tide. The project, now built, allows the UNESCO world heritage site to be preserved as an island, with tidal sedimentation carefully controlled.

RECENT PUBLICATIONS AND PRESENTATIONS

- Wilson, A. 2018: “Nature-based approaches to flood protection in Truro”. Presented at the Nova Scotia workshop: Application of nature-based climate change adaptation: Scaling up insights from the Truro case study. Organisation for Economic Co-operation and Development (OECD), Saint Mary's University, Dalhousie University. Halifax, November 2018
- June 2018: Panelist on the Atlantic Canada Workshop: Flood risk management in Canada's coastal regions. Roundtable: Professional perspectives on coastal flood risk reduction and climate change. Organised by the Canadian Coastal Resilience Forum, University of Waterloo and MEOPAR.
- Wilson, A., 2018. “Truro Flood Risk Study: Looking for Sustainable Flood Protection”. Presented at the 12th Bay of Fundy Science Workshop, Dalhousie University Agricultural Campus, Truro, May 2018
- Wilson, A., 2016. “Addressing the Greatest Flooding Risks in Nova Scotia – Responding to High Tides, Extreme Sedimentation, Ice Jams and Floodplain Development”. Presented at the Adaptation Canada 2016 National Symposium, Ottawa, April 2016.
- Wilson, A., 2016. “Managing Flood Risks in the Bay of Fundy Coastal Areas”. Peer-reviewed and Published in the Coastal Zone Management of Canada Newsletter, 2016.
- Marvin, J. and Wilson, A., 2016 “1D, 2D and 3D hydrodynamic modeling of a dyked coastal river in the Bay of Fundy”, Proceedings of the 49th International Conference on Water Management Modeling, 2016
- Public Meeting Presentation for the Town of Mahone Bay: Wilson, A., Leys, V., Baillie, A.: “Mahone Bay Flood Prevention and Shoreline Enhancement Plan”, Mahone Bay, Nova Scotia, December 2015.
- Wilson, A., 2015. “Truro Flood Risk Study”. Presented at the Atlantic Flood Management Conference. Organized by the NS Climate Change Unit. Truro, Nova Scotia, March 2015.

- Wilson, A., 2014. "East Hants Flood Mapping Study". Presented at the Atlantic Canada Water and Wastewater Association, Halifax, Nova Scotia, October 2014.
- Public Meeting Presentation for the Nova Scotia Department of Agriculture, Wilson, A., Giffin, R., Smith, G. "LaPlanche Aboiteau Detailed Design", Amherst, Nova Scotia, July 2014.
- Wilson, A. Oak, T., 2013. "Flood Risks Associated with Box Culvert Design and Construction". Presented at the NS Road Builders Association 2013 Winter Conference, Halifax, Nova Scotia, January 2013.
- Public Meeting Presentation for the County of Kings: Wilson, A. "Meadowview Flood Reduction Study", Kentville, Nova Scotia, January 2012.
- Wilson, A., 2010. "Cheticamp Bridge Hydrologic and Hydraulic Study". Presented at the PWGSC Transport Association of Canada conference, Truro, Nova Scotia, 2010.



Victoria Fernandez

M.Sc., P.ENG.



AREAS OF SPECIALTY

Coastal Engineering
Water Resources
Stormwater and Wastewater Management
Receiving Water Quality Studies

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

Coastal Zone Canada Association (since Director 2014)
Member of the Professional Engineers Association of Venezuela
Member of the Fulbright Association of Venezuela

EDUCATION

2014 Coastal Engineering Certificate Program, Old Dominion University, Virginia, US
2008 M.Sc., Civil and Environmental Engineering, Rutgers University, New Jersey, US
2004 B. Ing., Civil Engineering, Universidad Central de Venezuela, Caracas, Venezuela

EXPERIENCE

Victoria has over 12 years of experience in Civil Engineering and for the last 8 years, Ms. Fernandez has developed expertise in the area of water resources and coastal engineering. of experience in water resources and coastal engineering. Ms. Fernandez has been involved in a wide range of projects related to stormwater management, flooding risks, climate change adaptation, coastal protection, and water quality. Ms. Fernandez skills include 1D and 2D modelling of hydrodynamic processes using and integrating multiple software, including PCSWMM, XPSWMM and Mike 21/3. She has also developed automatic flood delineation tools in GIS which were used for the batch production multiple flood maps.

MAJOR RELEVANT PROJECTS

Coastal Engineering Studies for Federal Facilities (2011 to present): Field data collection, modeling of wave, currents, storm surges and sediment transport, engineering design for breakwaters, shore protection, climate change adaptation, and reduced maintenance dredging:

- NB – TABUSINTAC BAY (GEOSPATIAL ANALYSIS OF HISTORICAL MORPHOLOGICAL CHANGES AT MULTIPLE TIDAL INLETS), NEW MILLS.
- NS – MAUGHERS BEACH (MCNABS ISLAND IN HALIFAX HARBOUR), PARKERS COVE, CANSO, WEDGEPORT, PORT LATOUR, LOWER SANDY POINT, LOCKEPORT, GLACE BAY, LITTLE RIVER.
- NL – SHOAL COVE, BAY DE VERDE, BURIN, GREEN ISLAND.
- PEI – SOURIS HARBOUR (GEOSPATIAL ANALYSIS OF HISTORICAL SEDIMENTATION PATTERNS AND FERRY APPROACH IMPACTS).

Green Shores for Shoreline Development -Review: Technical review of the guidelines for their implementation in Atlantic Canada. The review included: design parameters for wave, sediments and water levels, stormwater management, environmental permitting requirements, climate change projections, shoreline protection method and case studies of guidelines implementation in NS, NB and PEI.

Coastal Protection Studies: Field data collection, modeling of wave, currents, storm surges and sediment transport, engineering design of Living shorelines, seawalls and dykes

- NS – REGATTA POINT, HALIFAX; MAHONE BAY; LIVERPOOL; TERRY'S CREEK, PORT WILLIAMS.

Hydrodynamic Studies for Bridge Design for NSTIR (2011 TO PRESENT): Field data collection, modelling of tidal currents, storm surges and peak stormwater runoff, calculation of water levels and velocities, design of erosion protection measures:

- NS – INDIAN SLUICE AND MORRIS ISLAND, YARMOUTH; DOUGLAS BROOK, QUEENS COUNTY; CORNWALLIS ST, TOWN KENTVILLE; PARKS CREEK, LUNenburg.

Flooding Studies: Field data collection, design and calculation of extreme events including PMP, hydrologic and hydraulic modelling of natural and urban drainage systems, analysis of options for flooding risk reduction, sediment transport modelling in the Bay of Fundy, cost estimate of protection measures and delineation and mapping of floodlines for extreme events:

- NS –ADVOCATE HARBOUR FLOOD RISK ASSESSMENT, WEST HANTS COASTAL FLOOD STUDY, FLOOD RISK STUDY, JFAC, COLCHESTER, TRURO, MILLBROOK; EAST KENTVILLE FLOOD ASSESSMENT; ESKASONI FIRST NATION FLOOD MITIGATION STUDY; ARGYLE ST FLOOD REDUCTION ASSESSMENT, YARMOUTH; FALMOUTH.
- NL – CITY OF ST JOHN'S RENNIES RIVER STORMWATER MANAGEMENT PLAN

DAM Safety Assessment: Field data collection design and calculation of extreme events including PMP, hydrologic and hydraulic modelling of flows; hydraulic modelling of overtopping and sunny day failures, calculation of Inflow Design Floods; freeboard assessment; stage discharge curve calculation:

- NS – SCHOONER POND.
- NL – LONG POND WEIR ASSESSMENT.

Stormwater Management Infrastructure design: Field data collection, design and calculation of extreme events, statistical assessment of historical data, hydrologic and hydraulic modelling of natural and urban drainage systems, analysis of infrastructure capacity; detail design of stormwater management infrastructure:

- NS – CLEMENT ST BERM FOREST ST, ARGYLE ST AND JARVIS RD, CULVERT UPGRADE, YARMOUTH; CULVERT DESIGN AT PIRATE HARBOUR BRIDGE, CORNWALLIS ST BRIDGE; KENTVILLE. STORMWATER MANAGEMENT FOR TRURO BYKEWAY; STORMWATER INFRASTRUCTURE FOR NSCC, SPRINGHILL



Archie THIBAUT, PQS

QUANTITY SURVEYOR CONSTRUCTION ESTIMATOR



AREAS OF SPECIALTY

Construction Estimating
Quantity Surveying
Cost Control

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

Canadian Institute of Quantity Surveyors # 1535

EDUCATION

2016 Fellowship – Canadian Institute of Quantity Surveyors
1984 Diploma – Quantity Surveying, Canadian Institute of Quantity Surveyors
1976 Diploma – Architectural and Building Technology, NSCC

RELEVANT CONTINUING EDUCATION

Bid Rigging Awareness & Deterrence, Competition Bureau of Canada.
Construction Contract Law, Technical University of Nova Scotia.
Contract Risk and Claim Avoidance, Revay Consultants and Associates Ltd.
Construction Bonding Seminar, Design Construction Institute.
Safety Management Leadership, Nova Scotia Construction Safety Association.
Commerce Program, Saint Mary's University, Halifax.
Quest Lecturer Dalhousie University Engineering "Preconstruction Budgeting to Bid Considerations".

EXPERIENCE

Mr. Thibault is a registered Professional Quantity Surveyor with the Canadian Institute of Quantity Surveyors who has over 35 years of experience in construction estimating, procurement, pre-construction management and cost consulting. His previous 26 year career as the Chief and Senior estimator with an industry leading General Contractor / Construction Manager; he successfully tendered over 200 projects covering most construction categories, and contract formats.

This experience provides CBCL Limited, with a unique blend of experience and expertise from both sides of a construction contract. Since joining CBCL Limited in 2006 he has provided Quantity Surveying cost consulting services for a wide range of projects. In particular, he has carried out capital cost estimating for numerous water treatment and wastewater treatment facilities as well as water reservoirs and water transmission systems for projects in Atlantic Canada.

SAMPLE CBCL LIMITED COST CONSULTING PROJECTS

- Colchester Wastewater Treatment Plant, Class A, and C Budgets, Truro, NS.
- WWTP Biological Upgrade and Expansion, Greater Moncton Sewage Commission.
- Rothesay Water Treatment Plant, Class A Budget, Rothesay, NB.
- Tatamagouche Water Treatment Plant, Class A Budget, Tatamagouche, NS.
- North Dartmouth Trunk Sewer, Class D Budget, Dartmouth, NS.
- Phase 1 - Kearney Lake Main Transmission Waterline Replacement, Halifax Water.
- Phase 2 – Kearney Lake Main Transmission Waterline Replacement, Halifax Water.
- Mount Hope Water Supply Options Analysis, Halifax Regional Municipality.
- Springhill Institution Water, Storm, Sanitary Distribution Upgrades, Class A Budget, Springhill, NS.
- Altex Claysmore Transload EPSC Rail, Claysmore, AB.

- Altex Lashburn Fire Protection, Lashburn, SK.
- IOL MGO Terminal, St. John's, NL.
- Bear Head LNG Unloading Wharf, NS.
- Phase 12-5 Burnside Industrial Park Expansion, City of Halifax.
- 9 Wing HQ Multi-Purpose Complex Class A, B, C, D Budgets - CFB Gander, NL.
- Cheticamp River Bridge Replacement, Class A, B, C, D Budgets, Cheticamp, NS.
- Command Staff College, Defence Construction Canada, Class D Budget, Kabul, Afghanistan.
- Barnes Drive Municipal Services & Upgrades, Class A Budget, Halifax International Airport, NS.
- Waterfront Development Corporation Limited, Cost Plan for 21 Infrastructure Assets, HRM, NS.
- Ferry Street Bridge, Class A, B, C, D Budget, Sydney, NS.
- Mount Hope Avenue Extension, Class A Budget, Dartmouth, NS.
- Hornell Operations Centre, Class D Budget, CFB Greenwood, NS.

GENERAL CONTRACTOR EXPERIENCE SUCCESSFULLY TENDERED, AWARDED AND BUILT PROJECTS

WASTEWATER AND WATER TREATMENT PLANTS

- Truro Water Treatment Plant, Truro, NS.
- Timberlea Wastewater Treatment Plant, Halifax, NS.
- Aircraft Rinse Facility, CFB Greenwood, NS.

HOSPITAL PROJECTS

- Dickson Medical Centre, Phase 1 - Site Works and Reinforced Concrete Structure, Halifax, NS.
- Archie McAllum 100 Bed Canadian Forces Hospital, CFB Stadacona, Halifax, NS.
- Shelburne Health Centre, Shelburne, NS.
- Halifax Infirmary Phase 7, Interior Millwork, Doors, Frames, Hardware, Halifax, NS.
- Halifax Infirmary Phase 10, Site Finishes, Landscaping, Paving, Halifax, NS.

UNIVERSITY AND RESEARCH PROJECTS

- K.C. Irving Environmental Science Centre, Acadia University, Wolfville, NS.
- J. Bruce Brown Science Building Renovation, St. Francis Xavier University, Antigonish, NS.
- Sobeys School of Business, and Loyola Centre, St. Mary's University, Halifax, NS.
- McNally Computer Centre, St. Mary's University, Halifax, NS.
- Expansion & Fire Remediation Renovations, Weldon Law Library, Dalhousie University, Halifax, NS.
- Chemistry Building Expansion, Dalhousie University, Halifax, NS.
- E. Margaret Fulton Centre, Mount Saint Vincent University, Halifax, NS.
- Renovations, Rosaria Hall, Mount Saint Vincent University, Halifax, NS.
- Main Library Atlantic School of Theology, Halifax, NS.
- Holland Building, Bedford Institute of Oceanography, Dartmouth, NS.
- Eaton, Whitman, Chipman House Residences, Acadia University, Wolfville, NS.
- Power & Somers Resident Apartments, St. Francis Xavier University, Antigonish, NS.

MARINE PROJECTS

- Chebucto Landing Wharf Upgrade, Waterfront Development Corporation, Halifax, NS.
- Cable Wharf Upgrade, Waterfront Development Corporation, Halifax, NS.
- Port LaTour Floating Wharf Project, Port LaTour, NS (Estimator & Project Manager).
- Alderney Landing Park, Waterfront Development Corporation, Halifax, NS.
- Canadian Forces, Syncrolift Extension, CFB Halifax Dockyards.
- Canadian Forces, NB Jetty, CFB Halifax Dockyards.

DEFENCE CONSTRUCTION PROJECTS

- Design-Build Family Resource Centre, CFB Windsor Park, Halifax.
- Single Officers Quarters, CFB Stadacona, Halifax.
- Canada's East Coast Main Base Supply, CFB Halifax Dockyards.
- NATO Jetty NB, CFB Halifax Dockyards.
- HQ Building, 12 Wing CFB Shearwater, Dartmouth, NS.

SPORTS AND RECREATIONAL PROJECTS

- Cole Harbour Place Recreation Centre, Dartmouth, NS.
- Dartmouth Sportsplex, Dartmouth, NS.
- Sackville Sportsplex, Sackville, NS.

COMMERCIAL GOVERNMENT BUILDING PROJECTS

- Jacques Whitford Office Building, Dartmouth, NS.
- Belmont Office Building, Dartmouth, NS.
- CBC Television Studio Expansion, Bell Road, Halifax, NS.
- Johnson Building Renovation, NS Department of Transportation & Infrastructure, Halifax, NS.
- Clayton Park Professional Centre, Lacewood Drive Halifax, NS.
- Clayton Park Shopping Centre, Lacewood Drive, Halifax, NS.
- Bayer's Road Shopping Centre Mid Life Renovation, Halifax, NS.
- Halifax and Dartmouth Ferry Terminals, Halifax Waterfront Development Corporation.

SCHOOL PROJECTS

- Auburn Drive High School, Dartmouth.
- Charles P. Allen High School.
- Central Kings High School, Canning, NS.
- P3 Meadow Fields Elementary School, Yarmouth, NS.

COMMUNITY AND PERFORMING ARTS CENTRES

- Phase 2 - Neptune Theatre Expansion, Phase Building Envelope, Halifax, NS.
- DeCoste Performing Arts Centre Theatre, Pictou, NS.
- Lake Echo Community & Recreation Centre, Dartmouth, NS.
- East Preston Community & Recreation Centre, Dartmouth, NS.

INDUSTRIAL PROJECTS

- Falls Dam Roller Compacted Concrete, Nova Scotia Power, Vaughan, NS.
- Michelin Tire Plant, Phase 2 Foundations and Slabs, Waterville, NS.
- Demolition & Reconstruction of Manufacturing Area, Michelin Tire, Waterville, NS.
- Pratt & Whitney Plant, Phase 2 -Foundations, Slabs, Machine Bases, Halifax, NS.
- Power Line Bases, Bowater Mersey Pulp Plant, Liverpool, NS.
- Conveyor & Crusher Foundations, Fundy Gypsum, St. Croix, NS.
- Halifax Grain Elevator Rail Loading Pits, Port of Halifax, Halifax, NS.

HISTORIC FORTRESS RESTORATION PROJECTS: HALIFAX CITADEL NATIONAL HISTORIC PARK, NS

- Cavalier Building 3rd Floor Roof Addition to 1870 period.
- Ammunition Casemate Dismantling and Reconstruction.
- South Fortress Counterscarp Wall Dismantling and Reconstruction.
- East Fortress Ramparts and Revetments
- South Fortress Salient Reconstruction



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Upper King Street Extension Development Plan

CONCEPT DESIGN

2022

Prepared for

Business Coordinator
Town of Lunenburg
119 Cumberland St
Lunenburg, NS B0J 2C0
purchasing@townoflunenburg.ca

RFP Number

TOL2022016

Submitted

June 30, 2022

Submitted By

Rob LeBlanc
Director of Planning
rob.leblanc@fathomstudio.ca

fathomstudio.ca

1 Starr Lane
Dartmouth, NS
B2Y 4V7

REQUEST FOR PROPOSALS

Upper King Street Extension Development

To whom it may concern,

With the recent adoption of the Town's Municipal Plan, Land Use Bylaw, Subdivision Bylaw and Comprehensive Community Plan, the Town is exploring the development potential of a 4 acre land assembly to address the growing needs for affordable housing. This preliminary design and yield study will explore 2 options for development following the new zoning requirements with the ultimate aim of attracting a developer that will implement the preferred plan in later stages. The plans must address the goals for this development including walkability, accessibility, affordability, vernacular fit, intensification of lands within the serviceable boundary.

Fathom Studio is one of Atlantic Canada's largest urban design firm with a integrated practice of architects, planners, landscape architects, interpretive planners, and civil/transportation engineers. We are currently master planning over 40,000 new units around Atlantic Canada for many large master planned developments including Seton Ridge (3,000 units), Stratford PEI Urban Core (2800 units), the Cogswell Redevelopment (3,000 units), Fox Creek Dieppe (2200 units), Hillsborough Park PEI (1000 units), the Wolfville East and West End developments (4000 units) and many other large master planned communities. At the same time, we often work for some of the region's most prolific developers on smaller community developments in the 2-10 acre size. Our 40 full-time staff are uniquely skilled to provide all the services needed for the master planning and detailed design for sites like this.

Of course we know and love Lunenburg, and we understand the sensitivities surrounding this new development in the backyard of a thriving community. This project will have to address many concerns and preconceptions about traffic, community fit, renters vs owners, microclimate changes, and loss of views. We applaud the Town for advancing this important design initiative rather than just going out to developers with a blank RFQ. We believe this is the right approach.

Sincerely,



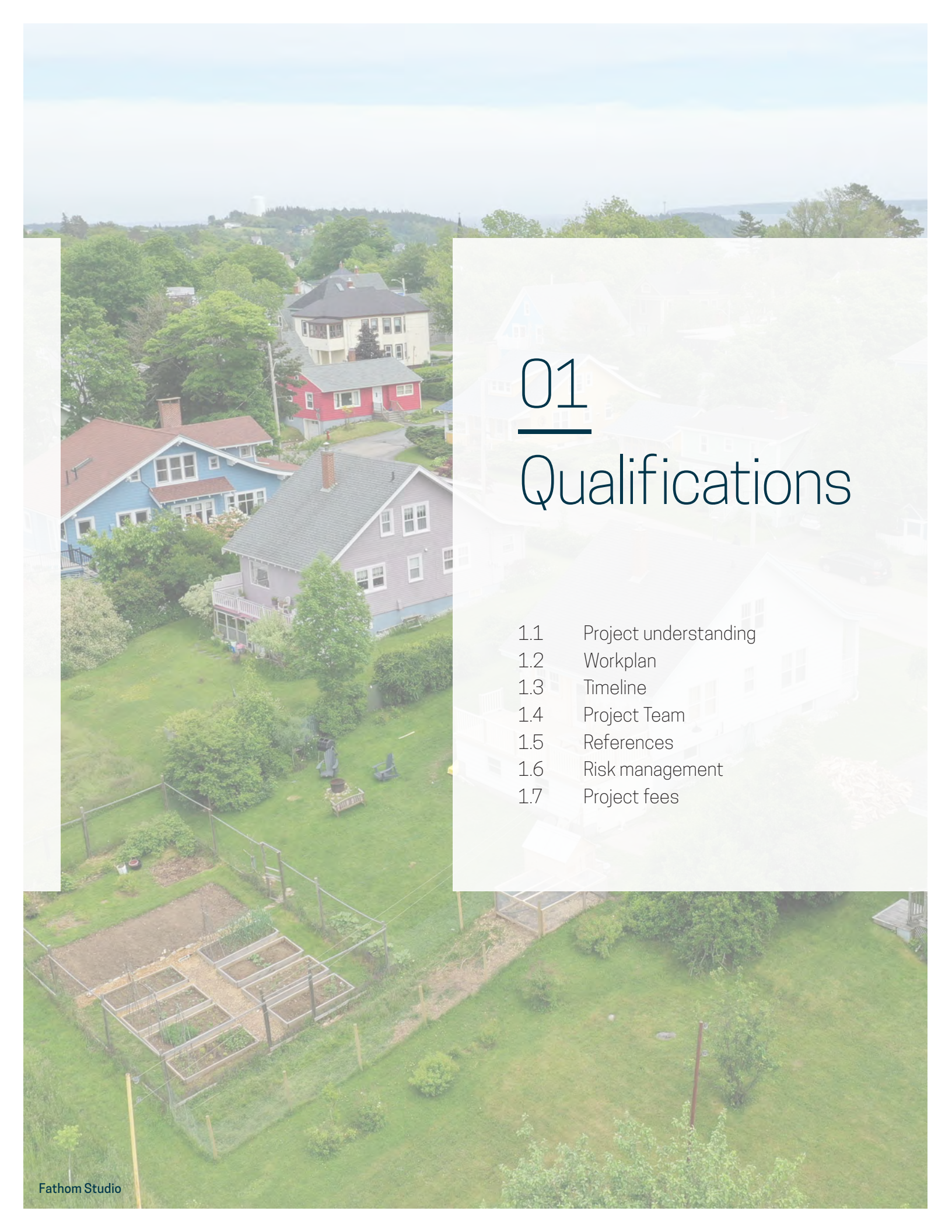
Rob LeBlanc, Director of Planning, LPPANS, FCSLA, API
902 461 2525 x 102 direct, 902 483 2424 mobile
rob.leblanc@fathomstudio.ca

Submitted

June 25, 2022

RFP Number

TOL2022016

An aerial photograph of a suburban neighborhood. In the foreground, there's a large green lawn with a fenced-in garden area containing several raised garden beds. A few Adirondack chairs are scattered on the grass. In the middle ground, there are several houses with different colored roofs and siding, including a prominent blue house and a red house. The background shows more houses and trees under a clear sky.

01

Qualifications

- 1.1 Project understanding
- 1.2 Workplan
- 1.3 Timeline
- 1.4 Project Team
- 1.5 References
- 1.6 Risk management
- 1.7 Project fees



Our philosophy

We are Fathom Studio.

For almost 25 years, major clients throughout the Atlantic provinces, across Canada, and abroad have commissioned us to resolve complex community design and planning problems while creating world-class solutions.

Our studio unites all the professions required to design complete communities including planners, architects, landscape architects, civil/transportation engineers, heritage and tourism specialists, and place branding experts. Together, these professions give strategic guidance, engage with the local and regional stakeholders, and use the most modern technologies to visualize community design projects from planning through to construction.

Fathom works methodically with local stakeholders to challenge status quo mindsets to one that better understands the imperative for change. Especially where change is happening right in people's backyards. This requires understanding and patience but our collaborative approach usually finds a path to compromise. As urban designers, we try to communicate the environmental, economic and social costs of sprawl and we work hard to show how carefully conceived density in the right places can benefit communities

1.1

Project understanding

New urban infill projects like this require a balanced understanding of development economics, creative design, and modern community design standards.

Fathom has worked with many of the country's largest developers and all levels of government to find creative solutions for accommodating new housing and mixed use development on challenging properties. New trends in ***complete communities*** planning and ***complete streets*** design offer a template for creating more inclusive, more walkable and more affordable communities. In Nova Scotia, bareland condominiums offer legal mechanisms for clustering developments and providing shared services management for unserviced properties. Minimizing roads in a development cluster substantially reduces development costs, making developments more affordable, but this has the opposite effect of reducing walkability in some cases.

Bringing together architects, planners, landscape architects and civil/transportation engineers is what makes our Fathom team uniquely positioned to create innovative new residential developments. All 4 of these skills will be needed to successfully implement the King Street Extension project. We also understand that our purpose is to develop a plan that will entice developers to eventually purchase and develop this property so it must be economically feasible to do so. We are confident that our vast experience in creative infill development will provide the best long-term solution for the Town of Lunenburg's housing challenges.

1.2

Workplan

Phase 1: startup, research and planning

We will begin the project with a startup call with the client to clarify deliverables, roles, timelines and lines of communication, as well as coordinate the delivery of deliverables for this project. We would also use this call to plan a trip to visit the site and meet with stakeholders.

We would also immediately reach out to the Town's engineering and planning staff to determine the servicing opportunities/limitations and the limitations of the easements shown in the RFP. Roger Boychuk, our team's civil/transportation engineer will gather all the background information needed to better understand the traffic and servicing potential including traffic counts and water/sanitary and stormwater infrastructure.

Our planning team will review all the latest policy documents (MPS, LUB, SB, and CCP) to ensure the development meets the policy and regulatory requirements for the different use zoning and form zoning areas.

Before our site visit, our GIS team will assemble the latest LIDAR mapping, provincial property information, services and other base layers for the base plan. In preparing for this proposal, our geomatics team has already 3D scanned the site using [DroneDeploy](#) to create a high resolution base plan and 3D model for the eventual design options. The scans included detailed topographic mapping and NDVI multi-spectral vegetation analysis. Fathom regularly uses these high tech solutions to better understand and communicate the opportunities and constraints of the site. Our traffic engineering team will commence by setting up our [Miovision Scout](#) to capture additional traffic data for our traffic analysis.

At our site visit, we would like to meet with the steering committee for this project and complete a vegetation and hydrological assessment. Rob LeBlanc will lead this site visit accompanied by our team engineer Roger Boychuk.

Deliverables

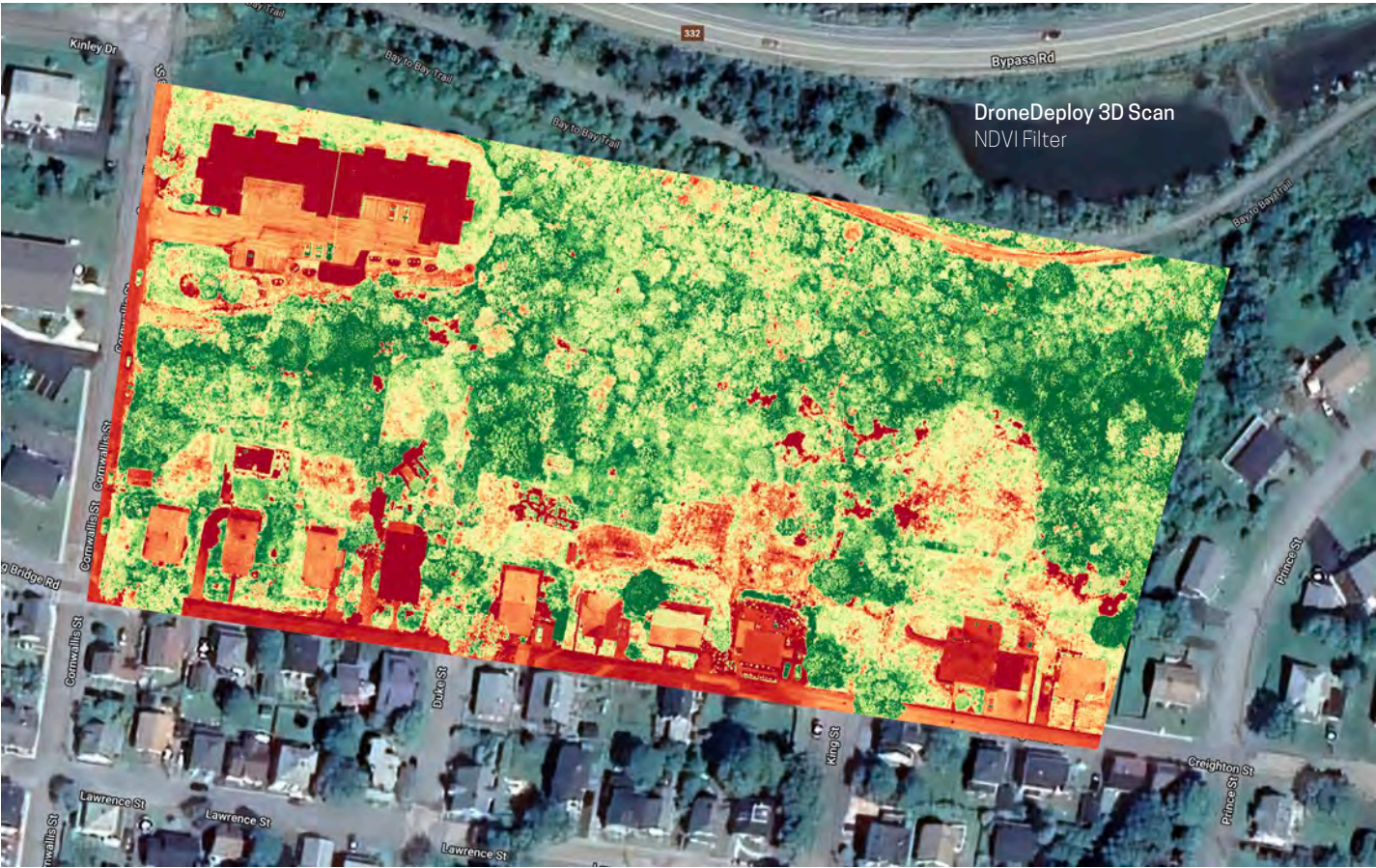
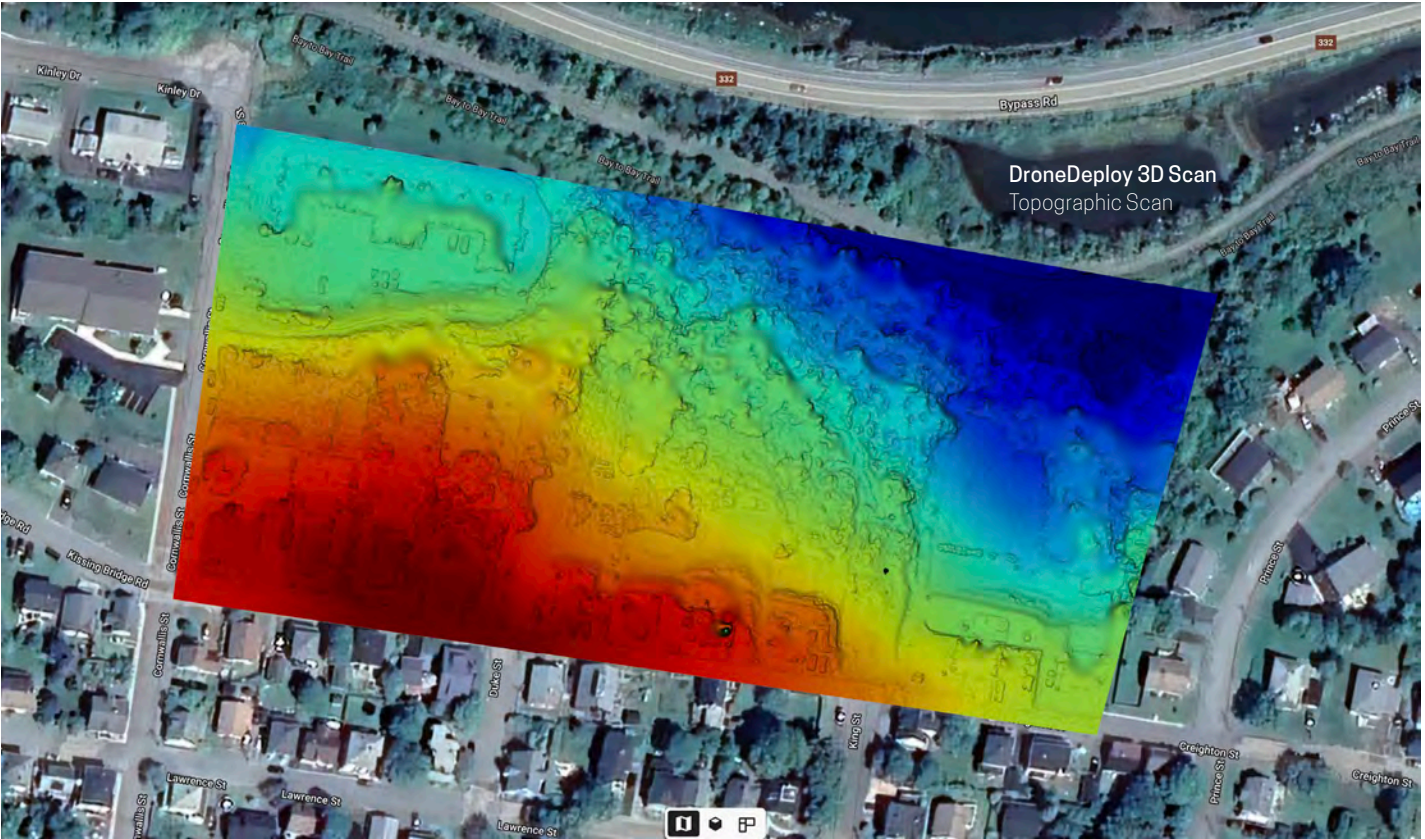
- Startup call
- Background documentation review (MPS, LUB, SB, CCP) and base plan prep
- Site visit and additional analysis

Duration

2-3 weeks



DroneDeploy 3D Scan
of the Upper King Street Site



DroneDeploy 2D Scan
High Res Scan, June 18, 2022



Phase 2: Concept Design & Pro Forma

During this phase we will develop the 4 illustrative concepts for the PIDS noted in the RFP. We will also explore the impact of development of on the other surrounding PIDS not included in the RFP

Client Design Workshop

At our site meeting, Rob and Roger will host a design workshop with the client stakeholders. The RFP does not make mention of any design workshops with the local community so we assume the eventual development will be taken through an as-of-right site plan approval process. We still think there is merit in working with the Town to explore the various design concepts in a working session. We recently worked with the Town of Wolfville and the Municipality of Colchester to develop similar development plans for Town owned properties. The benefit of having key staff participate in this process helps to overcome some of the biases and hidden constraints. Rob has over 30 years experience working collaboratively in these design sessions to create preliminary development plans as illustrated on the next page for our recent plan for a Debert Development.

Preliminary Concepts and Pro Forms

Following the Design workshop, our team will explore the 4 design concepts fleshing them out on a scale plan. The pro forma will include unit counts, parking ratios, density calculations, road length and preliminary class D costs. The concept plan will follow the national building code and land use and subdivision regulations. The concepts will be hand drawn at this early stage but will address the traffic concerns, servicing limitations, easements and stormwater management requirements.

Preliminary Design Presentation

Once the 4 concepts (2 concepts for each of the 2 zones) and pro formas are completed, we will present our findings via a screen share presentation with the Town. We will be looking for feedback to advance our preferred design concept.

Final Design Development Report

With feedback on the preferred concept, we will advance to a final illustrative master plan, final pro forma and community design standards document. This work will include a 3D massing model (not a detailed architectural design) and the results of our study will be summarized in a short report similar to the accompanying Debert Plan. The Community Design standards will set out the 'covenants' that must be met for future developers to fulfill the plan. Again, Fathom is working with the Municipality of Colchester to develop the site and architectural design standards for the new development in Debert.

Because the RFP has not called for, we have not included a detailed Traffic Impact Study (TIS) or Stormwater Management Plan (SMP) in our scope. If these items are needed, we would be happy to provide a price for them. We have also not included a phase 1 archaeological investigation, a topographic or boundary survey, nor a geotechnical investigation. We are confident that we do not require these items for this design exercise, however, the Town will likely require a topographic survey of the site before it goes out to an RFQ for developers so it may be prudent to do this survey as part of this plan. We regularly work with Able or DesignPoint Engineering who can provide these surveys at an additional cost.

We expect our final design document will be in the 15-20 page range. We will provide a draft document and after a draft review, we will issue the final report. We expect the next step for the Town will be to either issue a Developer RFQ or to work with a broker (Partners Global, Cushman Wakefield, or CBRE) to sell the properties to prospective developers. We regularly work with Brokers so we understand what they need.

- Uninterrupted Trail
- 30% Open Space (preserve woodlands and a new community park and playground). 4.17 acres
- Narrow lot R1's backing onto Existing R1's
- 3-Storey Multi backing onto the Church
- Townhomes with rear parking
- Stormwater management in the trail corridor
- Sidewalks throughout





FORM

WHAT WE HEARD

"Is this taking too much density?"

"What is the discussion of the towers?"

"Emphasize that density is the solution to traffic and affordability issues"

"More shape in massing"

"Too hard to get in and out of tower buildings"

"Height/massing a solution not just a problem."

"The towers are too much like slabs. They need to be slim"

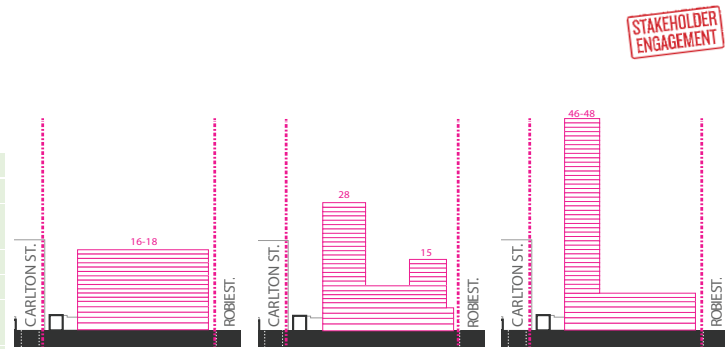
"Let people know it's not a carte blanche for all but why height is important for this site"

"I like the podium idea but would like to fit it"

HOW WE RESPONDED

The building form evolved throughout the design process. Starting with basic forms to elicit feedback. The podium and tower forms were refined throughout the public engagement process.

The overall massing of the highrise portion of the building reduces in scale at the corner. The void space between the towers allows sunlight to penetrate to Spring Garden Road.



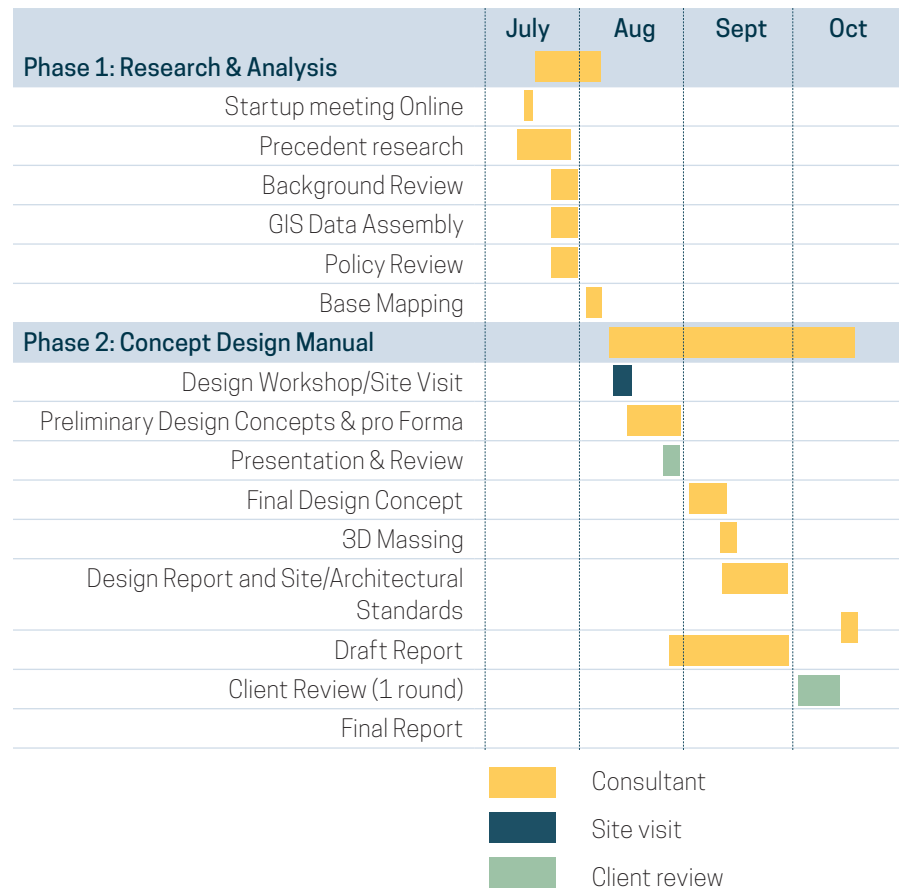
SPLIT TOWERS We explored multiple possibilities to both achieve the developers feasibility objectives and meet our criteria for developing a successful building, each had tradeoffs. The public rally gravitated towards the split massing (top middle) compared to the slab style building (top left) and the solo point tower (top right).



1.3

Project Timeline

We will commence in mid July and will finish by mid October 2022 following the draft schedule below. The schedule could be compressed to 2 months if needed.



1.4

Project Team

We have the experience

Collaborative design is the under-pinning of our purpose; whether its working internally with a diverse team of design professionals, or externally with communities, client groups, other designers or indirect stakeholders.



Rob LeBlanc
Founder & Director of Planning



Chris Crawford
Partner & Director of
Architecture & Interiors



Devin Segal
Partner & Director of Landscape
Architecture



Roger Boychuk
Director of Engineering

Key Contact

Project Manager: Rob LeBlanc, LPPANS, FCSLA, API

Phone: 902-483-2424

email: rob.leblanc@fathomstudio.ca

Sub-consultants

All required team members are in-house and no external consultants are needed for this study.

Town Staff or Resources Needed

Fathom will request any GIS base information and will require contact with the Town engineer(s) and planner(s). We have allocated 1 week for the two review periods (one at concept design review and the other at final draft report review). There will be periodic meetings with Rob and various municipal staff. We assume the same project manager from the Town that starts this job will finish the job. Any additional scope arising from a PM change from the client may result in additional fees if the change results in additional work.

1.5

References



Debert
Community Design Concept



Wolfville West End Phase 2
Development Plan



Reddin Meadows
Community Plan

Debert Community Concept Plan & Design Standards

Client: Municipality of Colchester

Client: Paul Smith, MPA, MCIP, LPP., Manager of Planning Services

Contact: M: 902-890-9456 | e: PSmith@colchester.ca

Project Scope:

We worked with the Municipality and the Debert Business Park Advisory Committee to develop a master plan for a 30 acre parcel of land in Debert. The plan resulted in a 528 unit development approved by council through a community engagement process. Fathom is currently finishing the design standards manual for the development to ensure the ideas in the plan are followed through by future prospective developer(s).

Wolfville West End Development Plan

Client: Town of Wolfville

Contact: Devin Lake, LPP, MCIP Director of Planning + Economic Development

p: 902-599-3210 | e: dlake@wolfville.ca

Project Scope:

Fathom worked with the Town of Wolfville to prepare a plan for its 80-acre west end at an established density of no less than 10 units per acre. The master plan became the basis for a secondary plan for this part of Wolfville. Fathom is now working on the East End Secondary Plan which will, together, see the construction of about 4,000 new units in Wolfville.

Stratford Reddin Meadows Plan

Client: Landfest Developments

Contact: John Horrelt

M: 902-393-3486 | e: johnhorrelt@gmail.com

Project Scope:

Fathom worked with the Town of Stratford and Landfest to prepare a master plan for 14-acres of land in Stratford PEI. The master plan was recently approved and Fathom is now preparing detailed design documents for an 80 unit (6 units per acre) subdivision. A denser subdivision was proposed but was rejected by the local community before settling on this lower density plan.

1.6

Risk management

Risk management strategy

Project Risk Management includes the process of conducting risk management planning, identification, analysis, response planning and controlling risk on a project. The intent is to increase the likelihood and impact of positive events, and decrease the likelihood and impact of negative events.

Fathom's project risk management strategy follows the Project Management Body of Knowledge which is a globally recognized standard for project management professionals. That process includes:

1. **Plan Risk Management:** the process of defining how to conduct risk management activities for a project.
2. **Identify Risks:** the process of determining which risks may effect the project and documenting their characteristics.
3. **Perform Qualitative Risk Analysis:** the process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact.
4. **Plan Risk Responses:** the process of developing options and actions to enhance opportunities and to reduce threats to project objectives.

We begin each project by following the procedures of our internal and external risk management plan and working with our clients to determine how to interface with their risk management strategy.

1.7

Project fees

Design fees

The following defines budget allocations for each phase:

P R O F E S S I O N A L F E E S	
Phase 1 — Startup, research and planning	\$ 5,000.00
Phase 2 — Concept design	\$ 7,000.00
Phase 3 — Community Design Report and Design Standards	\$ 26,000.00
Subtotal (before tax)	\$ 38,000.00
Expenses (travel, for 1 trip to Lunenburg)	\$ 300.00
TOTAL (no taxes)	\$ 38,300.00

The expenses above are to cover 1 trip to Lunenburg. If additional trips are requested, they will be billed additionally. Additional work beyond the deliverables noted above will be identified as a change in scope and completed at the following rates:

R A T E T A B L E		
Hourly rates (CAD)		
Principal	Rob LeBlanc	\$ 150.00
Project Architect or Engineer	Chris Crawford	\$ 150.00
Sr Engineer	Roger Boychuk	\$140.00
Senior Designers	Staff	\$ 130.00
Junior staff	Staff	\$ 90.00
Support staff	Support staff	\$ 65.00

Notes

No additional expenses will be incurred without written consent of the client's Project Manager. This project will be billed monthly based on the completion of each phase. Disbursements and HST are not included.

Project Assumptions

- This proposal assumes a start date of July 13, 2022
- Topographic Survey, archaeological study, environmental studies, or geotech studies are not included in scope. We believe they will not be needed unless the client knows something we don't.
- Land ownership maps will be based on provincial mapping not boundary surveys.
- The municipality will provide any needed information to the consultant at the beginning of this process including GIS base information.
- Town staff will be available for interviews as needed.
- No public engagement is requested
- All material will be produced in English only. No translation costs are included in this proposal.
- The Town will retain the rights to all information produced in this exercise.
- There will be 1 on-site meeting. Any additional on-site meetings will be billed additionally.
- We assume 1 round of revisions for the report and design concepts. Any additional revisions will be billed on any hourly basis.
- There will be a single point of contact for all approvals, project management and communication. All feedback on concepts, text, etc will be collated and approved by the municipality before being delivered to our team.
- Any change in the client PM may result in additional fees if it creates additional work for the consultant.
- Any cost estimates will be to class D.

An aerial photograph of a town nestled in a valley. A large, ornate building with a red roof and white trim is the central focus. The town is surrounded by dense green trees and rolling hills in the background under a cloudy sky.

02

Appendices

- 2.1 Project Sheets
- 2.2 CVs



STEVENSON LANDS - LANTZ INTER

DEVELOPMENT PLAN

E 2

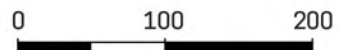
PHASE 1



CHANGE

June 2022

Scale = 1:5000







PORT WILLIAMS

NOVA SCOTIA
DEVELOPMENT PLAN

Scale = 1:1500

0 30 60m

August 2021



fathom



fathom

Scale: 1" = 150'

0 150'

December 20



Borden-Carleton

BORDEN, PEI EKISTICS PLANNING & DESIGN

client Borden Area Development Corporation
timeframe 2017-18

The community of Borden-Carleton, PEI, was once where the ferry from New Brunswick landed, and a natural place for visitors to stop and rest. With the opening of the nearby Confederation Bridge, visitors could now stay in their car and bypass the town entirely. An additional challenge was the derelict fabrication yard at the edge of the town, a stark industrial site where the bridge was fabricated. The solution we proposed was to turn a liability into an asset, showing how this industrial landscape could be transformed into a unique space for arts

and culture. Additional tactics include providing access the area's beaches and wetlands, and creating a positive first impression through signage and environmental design. The plan focuses on tourism development for the town, and establishes a clear path for not only tourism, but economic development, design, and community vitality. The plan focuses on specific areas such as the waterfront, Gateway Village, the Fabrication Yard, and accessibility and circulation. The process involved broad community consultation and working

with the many stakeholders in the region. The draft has already been presented to the public and oversight committee, receiving incredible support.

Cogswell Interchange Master Plan

Planning

Cogswell Transformed is one of the largest urban redevelopment initiatives in Atlantic Canada. The project removes a 1960's era highway interchange from the entrance to downtown Halifax to create a new 16-acre neighbourhood designed to unite the city's north end with the downtown.

The ambitious but achievable plan balances

the needs of disparate disciplines across a wide range of municipal and provincial departments from planning, traffic, municipal services, active transportation, urban design, parks, and transit, to transform a divisive physical reminder of Halifax's past and create an inspirational and contextual solution for the city's future.

Location

Halifax, Nova Scotia

Client

Halifax Regional Municipality

Budget

Undisclosed

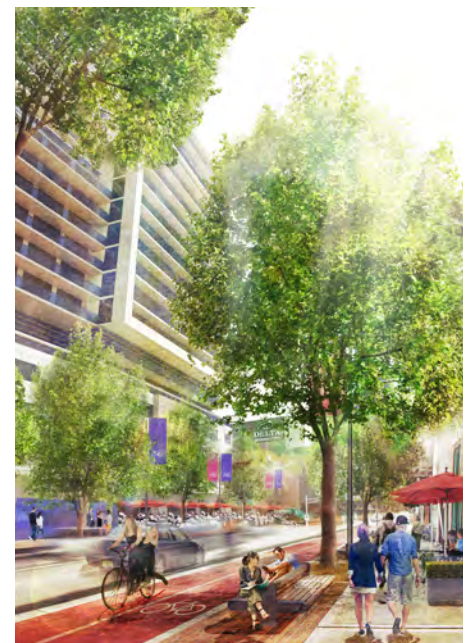
Firm of Record

Ekistics Plan + Design

Timeframe

2014-2015

Honours Canadian Institute of Planners (CIP) National Awards for Planning Excellence 2015 • Neighbourhood Planning
Atlantic Planners Institute (API/IU) Award of Planning Excellence 2015 • Physical Plans & Design



Spring Garden Road

Architecture

This project represents a complex urban site that included registered heritage buildings along a heritage streetscape. The urban design strategy was to restore and setback from the heritage buildings while providing a mixed-use building design that capitalizes on the downtown location with density and a variety of building uses. Ground-floor retail is supported by a landscaped

streetscape that provides amenities like benches, public art and plantings.

Through the study of the Halifax Citadel, a tower form was derived based on analysis of the citadel's ravelins. Designed to maximize defensive view planes to the harbour, these ravelin forms are now used to increase natural daylighting, cross ventilation and southern views to the harbour.

Location

Halifax, Nova Scotia

Client

Dexel Developments

Budget

Undisclosed

Firm of Record

Ekistics Plan + Design

Timeframe

2015-2016



Summerside Downtown Urban Core Plan

Planning, campus planning, urban design

Fathom Studio was retained to prepare a comprehensive urban development strategy for downtown Summerside linking its historic downtown to a new urban waterfront district. The plan employed tools for reinvigorating the existing downtown fabric (facade programs, signage and wayfinding, active transportation, etc.) and developed a new land use strategy for development on the waterfront (new marina, new medium density development parcels, conversion of parking lots to development sites,

road dieting, and relocation of the Confederation Trail)). The plan also imagines a new Holland College urban campus situated along the waterfront. For the future campus have planned new urban blocks with onstreet parking, groundfloor active uses, residential dormitories, and signature outdoor learning spaces. The plan images a new large waterfront park and outdoor venue space linking downtown to the waterfront and Holland College.

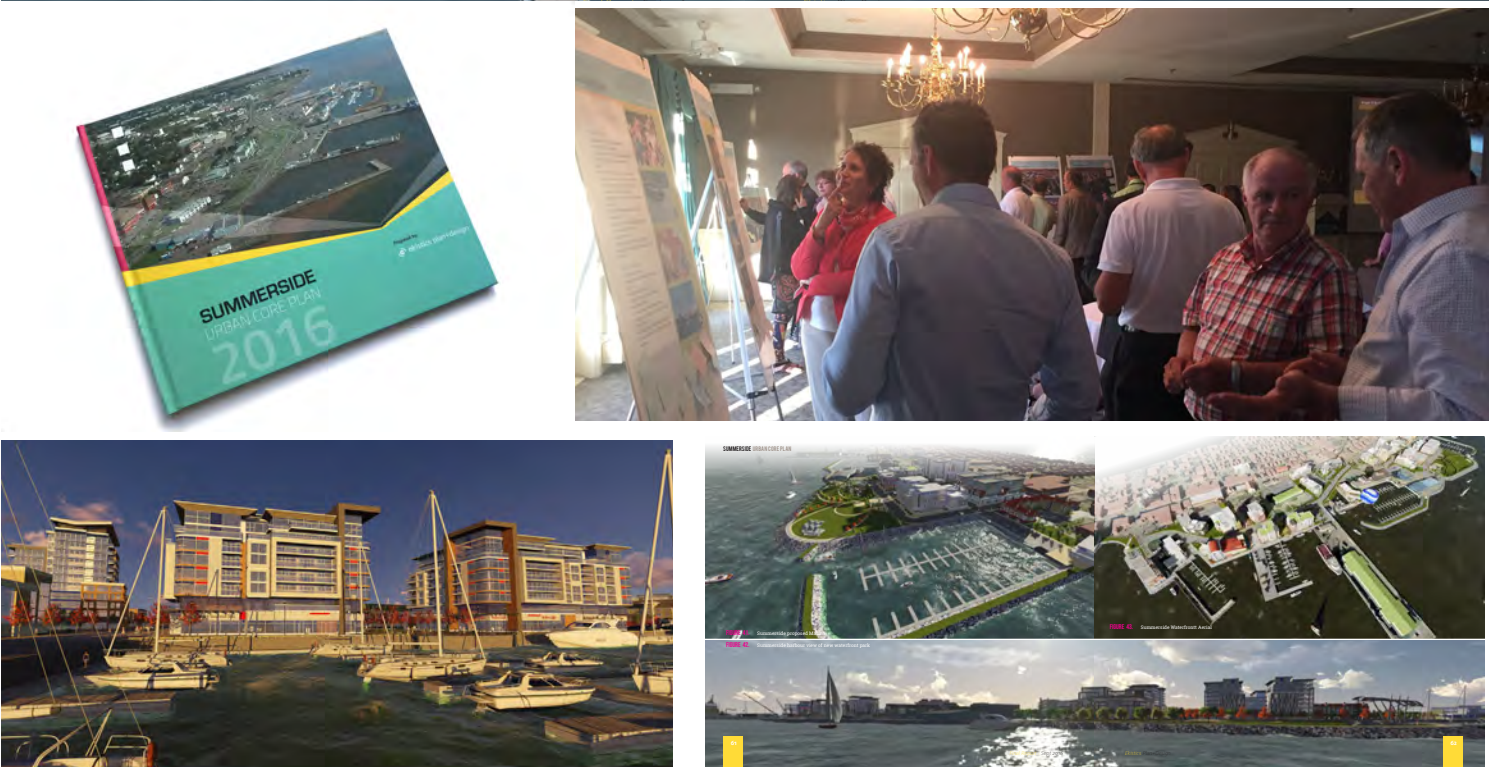
Location
Summerside, PEI

Client
Port of Summerside

Budget
\$50,000

Firm of Record
Ekistics Plan + Design

Timeframe
2015-2016



The George

Architecture, interior design, brand guidance, wayfinding

Located on the corner of Pepperell St. and Robie St in Halifax this mixed-use building transitions from the large-scale building context of Quinpool Road into what are primarily single-family residential neighborhoods to the south and west. The primary density is located to the north-eastern corner of the site to allow for a southern exposure to the internal courtyard.

The building steps down to walk-up townhouse units along the two bordering residential streets to integrate and activate the neighborhood

streetscape.

The corner has a double-height commercial space to create a neighborhood anchor and interesting corner address to the building. The use of human-scaled materials, formal articulation, and strategic massing result in a building that reinforces and improves the neighborhood character.

Fathom was responsible for Planning approval, Architectural Design, Interior design, Brand development, Wayfinding and signage.

Location

Halifax, Nova Scotia

Client

Dexel Developments

Budget

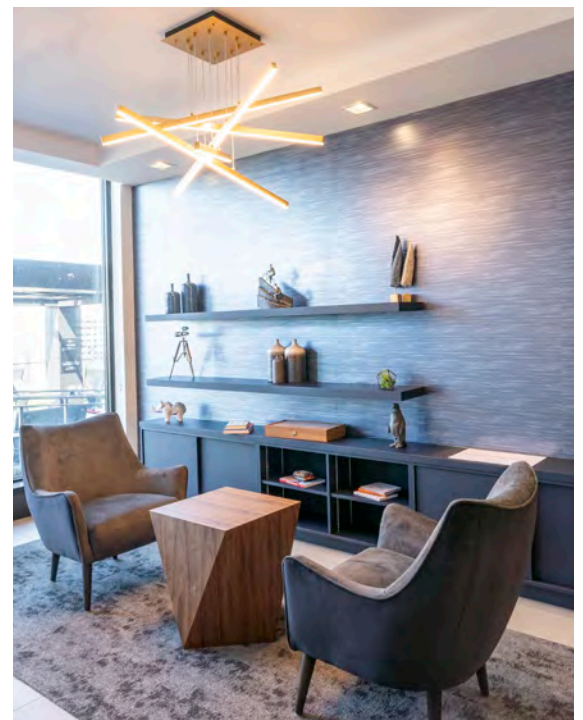
Undisclosed

Firm of Record

Fathom Studio & Dexel Architecture

Timeframe

2022



Southwest Properties Lucknow Street

Architecture, Interior Design, Landscape Architecture, Brand, Signage, Wayfinding

Our firm was commissioned to complete all design aspects of a design for a mixed-use residential project on Lucknow Street in Halifax Nova Scotia. The challenge was to introduce the density required to meet the requirement for density on the urban peninsula while still relating to the surrounding context of Victorian row houses.

The neighborhood context and scale was addressed with a contemporary interpretation of the Victorian row house. Including Bay window projections and a main level raised above the

street to ensure privacy for tenants. The building has been set back from the street creating space for landscaping and personalization to the urban front yard condition.

Due to the project location withing an existing neighborhood of 3 level residential buildings a generous 20' setback at the third level maintains the human scale of the neighborhood. Local sandstone, masonry and patina bronze panels all relate to the human scale design of the streetscape.

Location

Halifax, Nova Scotia

Client

Southwest Properties

Budget

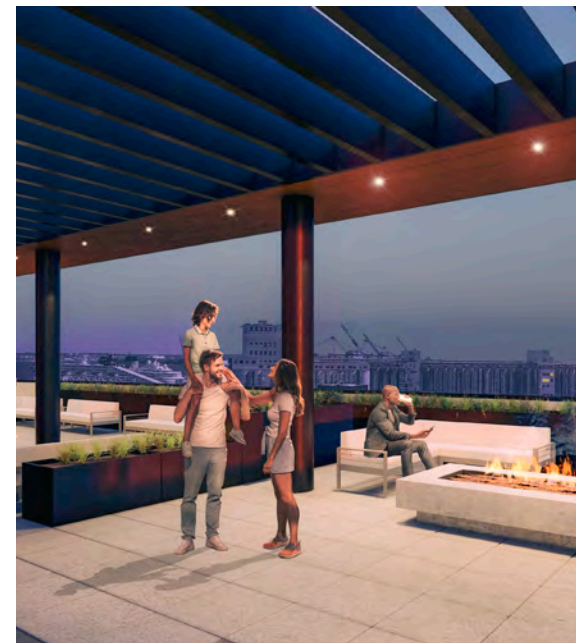
Undisclosed

Firm of Record

Fathom Studio

Timeframe

2023





Rob's professional experience spans a variety of project types in all parts of the globe. As president of Fathom Studio, he has been the senior project manager for many of the firm's projects since its inception in 1996, leading large multi-disciplinary teams from concept to implementation. Rob is a landscape architect, an urban planner, and a LEED Green Associate with a special interest in waterfront planning, green development, urban design, landscape ecology, park planning, downtown redevelopment and campus/school planning.

As a member of the International Association for Public Participation, Rob is committed to extensive public and client engagement as a necessary stage of every project.

Rob has led hundreds of millions worth of construction projects in his 25 year career including parks, golf courses, downtowns, waterfronts, institutional facilities and private developments.

Rob's passion is integrating new technology into every new project (Virtual and Augmented Reality, aerial drones, infrared thermal imaging and wind monitoring technologies). He hosts a regular technology column called LandTec in the CSLA's quarterly magazine 'Landscape - Paysage'. Rob has spent the last 5 years developing a cloud based project management tool called GroupThing to streamline the company's efficiency and improve project delivery.

Certifications American Society of Landscape Architects (ASLA) • 2000–present • USA | Canadian Institute of Planners (MCIP) • 2000–present • Canada | Licensed Professional Planner of Nova Scotia (LPPANS) • 2008–present • Nova Scotia | LEED Green Associate (LEED-GA) • 2006–present | Atlantic Provinces Association of Landscape Architects • 2006–present • APALA

Work experience

Years active: 25+

Master of Landscape Architecture, MLA

1994 • University of Guelph, ON

Bachelor of Design in Environmental Planning

1992 • NSCAD University, NS

Bachelor of Science, B.Sc. BioChemistry

1989 • Dalhousie University, NS

Golf Course Design Summer Course

2000 • Harvard University, Boston, MA, USA

Memberships and professional affiliations

Fellow of the Canadian Society of Landscape Architects (CSLA/AAPC) • 2010–present • Fellow

American Planning Association (APA) • 2005–present • Member

International Association of Landscape Ecologists (IALE) • 2000–present • Member

Soil and Water Conservation Society (SWCS) • 2000–present • Member

Canadian Landscape Reclamation Association (CLRA/ACRS) • 2001–present • Member

Society for Environmental Graphic Design (SEGD) • 2008–present • Member

US Green Building Council (USGB) • 2008–present • Member

International Association of Public Participation (IAP2) • 2010–present • Member

Fathom history (1996–present)

Urban planning

NSCC Marconi Campus Master Plan
2018 • Sydney, NS • Principal in Charge

Sydney Urban Core Plan
2016 • Sydney, NS • Principal in Charge

Sydney Tar Ponds and Coke Ovens Master Plan
2012 • Sydney, NS • Principal in Charge

Glance Bay and Area Revitalization Plan
2017 • Glance Bay, NS • Principal in Charge

Summerside Urban Core & Holland College Plan
2016 • Summerside, PE • Principal in Charge

Destination Reeves Street
2015 • Port Hawkesbury, NS • Principal in Charge

Agritec Business Campus Master Plan
2016 • Truro, NS • Principal in Charge

Labrador West Regional Growth Strategy
2014 • NL • Principal in Charge

Sydney Harbourfront Plan
2013 • Sydney, NS • Principal in Charge

Cogswell Interchange Redevelopment Plan
2013 • Halifax, NS • Principal in Charge

Cunard Block Redevelopment
2012 • Halifax, NS • Principal in Charge

Main Street Yarmouth Redevelopment
2014–17 • Yarmouth, NS • Principal in Charge

Terra Nova National Park Entrance Rehabilitation
2016–17 • Terra Nova National Park, NL • Principal in Charge

Cavendish Campground Entrance and Visitor Centre
2016–17 • Cavendish, PE • Principal in Charge

Downtown Bridgewater—Pijiniuiskaq Park and King St. Redevelopment
2014–16 • Bridgewater, NS • Principal in Charge

Batoche National Historic Site Redevelopment
2015–16 • Batoche, SK • Principal in Charge (LA)

Spring Hill Beautification Plan
2012 • Springhill, NB • Principal in Charge

Trenton Main Street Plan
2011 • Trenton, NS • Principal in Charge

Mabou Village Plan
2011 • Mabou, NS • Principal in Charge

Antigonish Gateway Plan
2011 • Antigonish, NS • Principal in Charge

Shelburne Downtown Plan
2011 • Shelburne, NS • Principal in Charge

Lisbon Downtown Plan
2011 • Lisbon, ME, USA • Principal in Charge

Zowara Green City Master Plan
2010 • Morocco • Principal in Charge

Chéticamp Village Plan
2010 • Chéticamp, NS • Principal in Charge

Augusta Green Downtown Plan, USA
2010 • Augusta, ME, USA • Principal in Charge

Bucksport Green Downtown Plan, USA
2010 • Bucksport, ME, USA • Principal in Charge

Lisbon Falls Green Downtown Plan, USA
2010 • Lisbon, ME, USA • Principal in Charge

Millinocket Green Downtown Plan, USA
2010 • Millinocket, ME, USA • Principal in Charge

Norway Green Downtown Plan, USA
2010 • Norway, ME, USA • Principal in Charge

Presque Isle Green Downtown Plan, USA
2010 • Presque Isle, ME, USA • Principal in Charge

Farmington Green Downtown Plan, USA
2010 • Farmington Green, ME • Principal in Charge

Battery Hill Redevelopment
2005 • St. John's, NL • Principal in Charge

East Hants Village Core Plan Amherst Downtown Plan
2010 • Amherst, NS • Principal in Charge

Chéticamp Facade Incentive Program
2010 • Chéticamp, NS • Principal in Charge

Downtown Truro Facade Incentive Program
2009 • Truro, NS • Principal in Charge

Chengdu City Expansion
2009 • Chengdu, China • Principal in Charge

New Glasgow Urban Design Study
2009 • New Glasgow, NS • Principal in Charge

St. Peter's Village Master Plan
2008 • St. Peter's, NS • Principal in Charge

Dong Da Mixed Use Community
2009 • China • Principal in Charge

Bedford South Master Plan
2009 • Halifax, NS • Principal in Charge

Pleasantville Community Master Plan
2008 • St. John's, NL • Principal in Charge

Portland Street Facade Study
2008 • Dartmouth, NS • Principal in Charge

University and commercial campus planning

Dalhousie University Green Corridor Plan
2017 • Halifax, NS • Principal in Charge

Mount St Vincent University Campus Master Plan
2010 • Halifax, NS • Principal in Charge

Seton Ridge (MSVU) Master Plan
2016 • Halifax, NS • Principal in Charge

Waterfront planning

Lunenburg Waterfront Vision (WDCL)
2018 • Lunenburg, NS • Principal in Charge

Borden Waterfront & Tourism Plan
2017 • Borden, PE • Principal in Charge

Bridgewater Waterfront & Downtown Plan
2012 • Bridgewater, NS • Principal in Charge

Charlottetown Waterfront Plan
2012 • Charlottetown, PE • Principal in Charge

Essex Waterfront Plan, Ont
2012 • Essex, ON • Principal in Charge

Summerside Harbour Plan
2012 • Summerside, PE • Principal in Charge

Charlottetown Queens Wharf Redevelopment
2012 • Charlottetown, PE • Principal in Charge

Port Williams Waterfront Plan
2010 • Port Williams, NS • Principal in Charge

Bedford Waterfront Plan Phase II
2010 • Bedford, NS • Principal in Charge

Birch Cove Waterfront Plan
2010 • Halifax, NS • Principal in Charge

Zowara–Abu Kammesh City Master Plan
2008 • Libya • Principal in Charge

500 Lot Heritage Study
2008 • Charlottetown, PE • Principal in Charge

Inglis Place Streetscape Plan
2008 • Truro, NS • Principal in Charge

Bible Hill Core Area Downtown Plan
2008 • Bible Hill, NS • Principal in Charge

Inner Mongolia Neighbourhood Plan
2008 • Mongolia, China • Principal in Charge

Dong Da City Master Plan
2008 • Dong Da, China • Principal in Charge

Port Carling Streetscape Study
2007 • Port Carling, ON • Principal in Charge

Main Street Dartmouth Streetscape Study
2008 • Dartmouth, NS • Principal in Charge

Greenwich Planning Study
2007 • Greenwich, PE • Principal in Charge

Startford Core Area Plan
2007 • Stratford, PE • Project Manager

Saint John Civic Core Master Plan
2007 • St. Johns, NL • Principal in Charge

Truro Urban Design Strategy
2007 • Truro, NS • Principal in Charge

Town of Stellarton Strategic Plan
2007 • Stellarton, NS • Principal in Charge

Liuzhou City Design, new City for 150,000 people
2007 • Liuzhou, China • Principal in Charge

Slemon Park & Holland College Plan
2017 • Summerside, PE • Principal in Charge

Kingstec College Campus Master Plan
2004 • Kentville, NS • Principal in Charge

Acadia University Campus Landscape Master Plan
2000 • Wolfville, NS • Principal in Charge

Dar Es Salaam Waterfront Plan
2008 • Tanzania, Africa • Principal in Charge

Sheet Harbour Waterfront Plan
2006 • Sheet Harbour, NS • Principal in Charge

Souris Harbour Plan
2006 • Souris Harbour, PE • Principal in Charge

Dar Es Sallaam Waterfront Plan
2008 • Tanzania, Africa • Principal in Charge

Lunenburg Waterfront Development (with Cantwell & Company)
2012 • Lunenburg, NS • Principal in Charge

Norris Point Waterfront Tourism Plan
2004 • Norris Point, NL • Principal in Charge

Historic Properties Redevelopment
2008 • Halifax, NS • Principal in Charge

Queens Landing Waterfront Development
2010 • Halifax, NS • Principal in Charge

Saint John Coast Guard Site Redevelopment
2010 • St. John, NB • Principal in Charge

Charlottetown Harbour Plan
2013 • Charlottetown, PE • Principal in Charge

Fuzhou Master Plan Community
2007 • Fuzhou, China • Principal in Charge

Town of Wolfville's Commercial Development Plan
2007 • Wolfville, NS • Principal in Charge

Herring Cove Road Streetscape Study
2007 • Herring Cove, NS • Principal in Charge

Reeves & Granville Streetscape Design Study
2002 • Port Hawkesbury, NS • Principal in Charge

Sydney Downtown Facade & Signage Study
2000 • Sydney, NS • Principal in Charge

Truro Heritage District Study
2005 • Truro, NS • Principal in Charge

North Sydney Streetscape Design Study
2000 • North Sydney, NS • Principal in Charge

Summerside Streetscape Design Study (with DKG)
2008 • Summerside, PE • Principal in Charge

Bayne Street Land Use Study
1999 • Halifax, NS • Project Manager

Barrington Street Heritage District Study
2001 • Halifax, NS • Principal in Charge

Shubenacadie Canal Greenway Master Plan
2000 • Dartmouth, NS • Project Manager

Times Square Tower Microclimate Study
2002 • New York, USA • Principal in Charge

Halifax Waterfront Urban Design Concepts
2002 • Halifax, NS • Principal in Charge

Downtown Charlottetown Streetscape Study
1999 • Charlottetown, PE • Principal in Charge

Debert Air Industrial Park Master Plan
2007 • Debert, NS • Principal in Charge

Mount Saint Vincent University Master Plan
2008 • Halifax, NS • Principal in Charge

Brunswick US Naval Base Redevelopment Plan
2010 • Brunswick, ME, USA • Principal in Charge

Wrights Cove Master Plan
2010 • Halifax, NS • Principal in Charge

Pugwash Waterfront Plan
2008 • Pugwash, NS • Principal in Charge

Grand Étang Waterfront Plan
2009 • Grand Étang, NS • Principal in Charge

Port Morien Town Square
2009 • Port Morien, NS • Principal in Charge

Bayfield Waterfront Plan
2010 • Bayfield, NS • Principal in Charge

Hood Waterfront Plan
2014 • Port Hood, NS • Principal in Charge

Canso Waterfront Plan
2006 • Canso, NS • Principal in Charge

Saint John Waterfront Greenway
2007 • Saint, John, NB • Principal in Charge

Saint John's Waterfront Tourism Study
2000 • St. John's, NL • Principal in Charge

West Point Waterfront Development
2001 • PEI • Principal in Charge

Alberton Waterfront Plan
2002 • Alberton, PE

St. Peters Community Plan
2009 • St. Peters, NS

Wood Islands Waterfront Planning & Design
2004 • Wood Islands, PE

Landscape architecture and park planning

Labrador West Parks and Trails Master Plan
2019–ongoing • Labrador City and Wabush, Newfoundland • Principal in Charge

Argyle and Grafton Shared Street
2017 • Halifax, NS • Principal in Charge

Fort Needham Park Implementation
2017 • Halifax, NS • Principal in Charge

Cornwallis Park Detailed Design
2017 • Halifax, NS • Principal in Charge

Fort Needham Master Plan
2015 • Fort Needham, NS • Principal in Charge

Erindale Playground Detailed Design
2015 • Dartmouth, NS • Principal in Charge

Twin Brooks Playground Detailed Design
2015 • Twin Brooks, AB • Principal in Charge

The Maple Tower Landscape Design
2015 • Halifax, NS • Principal in Charge

Upton Farm Park Master Plan
2013 • Charlottetown, PE • Principal in Charge

Victoria Park Master Plan
2013 • Truro, NS • Principal in Charge

Trenton Park Master Plan
2012 • Trenton, NS • Principal in Charge

Amherst Victoria Park Redevelopment
2011 • Amherst, NS • Principal in Charge

Cable Wharf Plaza
2011 • Halifax, NS • Principal in Charge

Antigonish Exhibition Centre Master Plan
2010 • Antigonish, NS • Principal in Charge

Mainland Common Canada Games Centre
2010 • Halifax, NS • Principal in Charge

Queens Place Recreation Centre
2010 • Lunenburg, NS • Principal in Charge

Lunenburg Lifestyle Centre Pool/Rink
2010 • Lunenburg, NS • Principal in Charge

Burnside Corporate Campus Plan
2010 • Dartmouth, NS • Principal in Charge

Prospect Road Community Centre
2009 • Halifax, NS • Principal in Charge

Land development

220 unit Mixed Use Development Salter Wharf
2012 • Halifax, NS • Principal in Charge

110 unit Young St. and Windsor Mixed Use Development
2012 • Halifax, NS • Principal in Charge

160 Unit Lake Loon Townhouse & Multi-Unit Development
2012 • Dartmouth, NS • Principal in Charge

Campbellton Waterfront
2003 • Campbellton, NB

Chaleur Regional Waterfront Design Study (with DKG Ltd.)
2002 • NB • Principal in Charge

Montague Waterfront (with Morello Asso)
1998 • Montague, PE

Irving Saint John Headquarters
2010 • St. John's, NL • Principal in Charge

Tide view Manor Seniors Home
2010 • Yarmouth, NS • Principal in Charge

Tidal view Manor Seniors Home
2010 • Digby, NS • Principal in Charge

Nakile Home for Special Care
2010 • NS • Principal in Charge

Villa Saint Joseph de Lac Seniors
2010 • NS • Principal in Charge

Gem Dartmouth Seniors Facility
2010 • Dartmouth, NS • Principal in Charge

Reversing Falls Master Plan
2008 • Saint John, NB • Principal in Charge

Point Pleasant Park Master Plan, Halifax
2008 • Halifax, NS • Principal in Charge

Lake Banook Master Plan
2009 • Dartmouth, NS • Principal in Charge

Point Pleasant Park International Design Competition, co-winner.
2006 • Point Pleasant, NS • Principal in Charge

Sackville Landing Urban Plaza Redevelopment
2008 • Halifax, NS • Principal in Charge

Porters Lake Provincial Campground Improvement Plan
2007 • Halifax, NS • Principal in Charge

Purdy's Wharf Redevelopment Plan
2008 • Halifax, NS • Principal in Charge

Tall Ships Quay 2000 Plaza
2000 • Halifax, NS • Principal in Charge

Dieppe Kite Park Master Plan
2001 • Dieppe, NB • Principal in Charge

Columbus Field Park Master Plan
2001 • Antigonish, NS • Principal in Charge

Wentworth Park Master Plan
2002 • Sydney, NS • Principal in Charge

Dartmouth Waterfront Greenway Plan
2004–08 • Dartmouth, NS • Principal in Charge

98 unit Sackville Subdivision
2012 • Sackville, NS • Principal in Charge

400 Unit Kingswood Development
2012 • Sackville, NS • Principal in Charge

80 Unit St. Joseph Mixed Use Development
2012 • Halifax, NS • Principal in Charge

20 Unit Single Family Boscobel Development
2012 • Halifax, NS • Principal in Charge

Bedford Waterfront Development (phase I working drawings and phase II concepts)
2004 • Bedford, NS

Pictou Waterfront Development Plan
1997 • Pictou, NS

Mainland Common School
2006 • Halifax, NS • PM

Le Village Historic Village
2002 • Mont-Carmel, QC • Principal in Charge

Halifax International Airport Addition
2002 • Halifax, NS • Principal in Charge

Halifax Waterfront Kiosks Conceptual Design
2005 • Halifax, NS • Principal in Charge

Sackville Streetscape Design Study
2001 • Sackville, province • Principal in Charge

Portland Streetscape Design Study
2002 • Dartmouth, NS • Principal in Charge

Porters Lake Greenway
2002 • Porters Lake, NS • Principal in Charge

Dollar Lake Greenway Trail Suitability Study
2002 • Musquodoboit, NS • Principal in Charge

Nova Scotia P3 Schools Site Planning and Detailed Design—18 of the new P3 schools in Nova Scotia Highlandview Hospital
1997–99 • All over NS • Principal in Charge

Kensington Station Master Plan
1998 • Kensington, PE • PM

Fortune Head Ecological Reserve
1999 • Fortune, NF • Principal in Charge

Halifax Historic Grand Parade
1996 • Halifax, NS • Designer

Portland Estates Recreation Park Complex
2004 • Dartmouth, NS • PM

Wesley Daycare Playground
1995 • Canberra, Australia • Principal in Charge

Transportation planning

Essex Active Transportation Plan
2012 • Essex, ON • Principal in Charge

COLTA Greenway Corridor Plan
2012 • Halifax, NS • Principal in Charge

Yarmouth Active Transportation Plan
2010 • Yarmouth, NS • Principal in Charge

Tourism planning

Borden Tourism Plan
2017 • Borden, PE • Principal in Charge

Hopedale Mission Plan
2012 • Hopedale, NL • Principal in Charge

The Lakes at Ben Eoin Reort Plan
2012 • Ben Eoin, NS • Principal in Charge

Cayman Islands Resort Plan
2010 • Cayman Islands • Principal in Charge

Miramichi Landings Interpretive Master Plan
2010 • Miramichi, NB • Principal in Charge

Environmental planning

Long Lake Ecological Plan
2011 • Halifax, NS • Principal in Charge

Dickey Brook Stream Rehabilitation
2010 • Amherst, NS • Principal in Charge

Sydney Tar Ponds & Coke Ovens Master Plan
2010 • Sydney, NS • Principal in Charge

DEVCO Divestiture Strategy
2009 • Sydney, NS • Principal in Charge

Princess Colliery Reclamation Master Plan
2009 • Sydney, NS • Principal in Charge

Mispec Land Use Study
2009 • Mispec, NB • Principal in Charge

HRM Small Scale Waste Water Treatment Study
2006 • Halifax, NS • Principal in Charge

Security and defense

Brunswick Naval Base Redevelopment, USA
2010 • Maine, USA • Principal in Charge

14 Wing Greenwood Landscape Barriers
2007 • Greenwood, NS • Principal in Charge

Sports design

World Canoe Championships Facilities
2009 • Halifax, NS • Principal in Charge

Kenwo Golf Course Renovation
2010 • Kenwo, NS • Principal in Charge

Aspotogan Golf Community
2009 • Halifax, NS • Principal in Charge

Ocean Links Golf Course
2009 • NS • Principal in Charge

Mountain Golf Course Master Plan
2009 • Truro, NS • Principal in Charge

Chengdu Golf Community
2009 • China • Principal in Charge

Clarenville Golf & Ski Resort
2008 • Clarenville, NL • Principal in Charge

Mainland Common Recreation Plan
2008 • Halifax, NS • Principal in Charge

Miramichi Active Transportation Plan
2010 • Principal in Charge

Antigonish Gateway Strategy
2011 • Antigonish, NS • Principal in Charge

Debert Gateway Corridor Plan
2009 • Debert, NS • Principal in Charge

Oukaimeden Resort Plan
2008 • Morocco • Principal in Charge

White Point Resort Master Plan
2007 • White Point, NS • Principal in Charge

Dundee Resort Master Plan
2007 • West Bay, NS • Principal in Charge

Ben Eoin Ski/Golf Resort Master Plan
2006 • Ben Eoin, NS • Principal in Charge

Peggy's Cove Management Plan
2006 • Peggy's Cove, NS • Principal in Charge

Belle River Assessment
2004 • NB • PM

HRM Sustainability Centre Conceptual Design
2008 • Halifax, NS • Principal in Charge

Kingsburg Beach Management Study
2005 • Kingsburg Beach, NS • Principal in Charge

Saint John Waterfront Stormwater Wetland
2006 • St. Johns, NL • Principal in Charge

Jonathan Creek Stormwater Wetland, Moncton
2006 • Moncton, NB • PM

Cobequid Health Centre Microclimate Assessment
2008 • Sackville, NB • PM

Fox Creek Golf Environmental Assessment
2001 • Dieppe, NB • Principal in Charge

CFB Pleasantville Base Redevelopment
2008 • St. John's, NF • Principal in Charge

CFB Debert Base Redevelopment Plan
2008 • Debert, NS • Principal in Charge

Lake Banook World Canoe Championships Master Plan
2009 • Dartmouth, NS • Principal in Charge

William Spry Centre Community Rec Park
2009 • Halifax, NS • Principal in Charge

HRM All Weather Fields
2007 • Halifax, NS • Principal in Charge

East Dartmouth Rec Fields
2008 • Dartmouth, NS • Principal in Charge

Moncton Open Space Master Plan
2007 • Moncton, NB • Principal in Charge

Keppock Ski Resort Master Plan
2007 • Antigonish, NS • Princial in Charge

Oukaimeden Golf/Ski Resort
2007 • Morocco • Principal in Charge

Charlo Golf Community
2005 • Charlo • Principal in Charge

Chester Highway 3 Plan
2010 • Chester, NS • Principal in Charge

Bridgewater exit 12 Commercial Development Plan (with Cantwell Co.)
Bridgewater, NS • Principal in Charge

St. John's Waterfront Tourism Study
2001 • St. John's, NL • Principal in Charge

Oak Island Tourism Plan (with EPG Ltd.)
2006 • Halifax, NS • Principal in Charge

Fundy Interpretive Master Plan
2005 • Kings County, NS • Principal in Charge

Silver Sands Golf Environmental Assessment
1999 • Cow Bay, NS • PM

Genpower Visual Impact Assessment
2000

Five Islands Stream Restoration
1999 • Halifax, NS

Tryon Riverside Park, North Tryon
1997 • Tryon, PE • PM

A Critical Event Stream Temperature Model for Unregulated, Urban Streams
1995 • Guelph, ON • PM

Morningside Tributary Sub-Watershed Plan
1995 • Toronto, ON • PM

Smelt Brook Erosion Study
1996 • Smelt Brook, NS • Principal in Charge

Danish Embassy Plan
1997 • Canberra, Australia • Principal in Charge

Ben Eoin Golf Course
2007 • Cape Breton, NS • Principal in Charge

White Point Beach Resort Masterplan
2007 • White Point, NS • Principal in Charge

Cabot Park Golf Resort
2007 • PEI • Principal in Charge

Silver Fox Golf Club
2005 • Moncton, NB • Principal in Charge

Moncton Golf & Country Club
2005 • Moncton, NB • Principal in Charge

Silver Sands Beach Golf Course
2005 • Eastern Passage, NS • Principal in Charge

Antigonish Golf & Country Club
2004 • Antigonish, NS • Principal in Charge

Développement Grand Ruisseau Golf
2004 • Mont-Carmel, QC • Principal in Charge

Horseshoe Ridge Golf & Country Club
2004 • Shubenacadie, NS • Principal in Charge

Ocean Sands Golf Village
2004 • Clam Harbour, NS • Principal in Charge

Glasgow Hills Golf Course
2003 • Glasgow, PE • Principal in Charge

Amaruk Golf Course, Happy Valley–Goosebay
2003 • Labrador, NL • Principal in Charge

Covehead Golf Course
2003 • Covehead, PE • Principal in Charge

Belmont Golf Course—9 hole expansion
2002 • Guysborough, NS • Principal in Charge

McCabe Lake Golf Course
2002 • Halifax, NS • Principal in Charge

Golf Suitability Assessment
2002 • Halifax, NS • Principal in Charge

Port Hood Golf Course
2002 • Port Hood, NS • Principal in Charge

Diamond Hills Golf Course
2002 • Charlottetown, PE • Principal in Charge

Royal Hemlocks Golf Course
2002 • Halifax, NS • Principal in Charge

Fairview Golf Centre
2001 • Halifax, NS • Principal in Charge

Mabou Golf Course
2002 • Cape Breton, NS • Principal in Charge

Beach Grove Golf Course
2001 • Charlottetown, PE • Principal in Charge

Coyote Creek
2000 • PEI • Principal in Charge

Previous experience

University of Canberra (1995–1996) Canberra, Australia | Adjunct faculty, landscape design

Honours and publications

Awards—professional

Lieutenant Governor's Award of Excellence in Architecture
2017 • Batoche National Historic Site • Medal of Excellence

Atlantic Planners Institute (API/IU) Award
2017 • Fort Needham Master Plan
2016 • Summerside Urban Core Plan
2013 • Bridgewater Downtown & Waterfront Plan

Canadian Institute of Planners (CIP) Awards for Planning Excellence
2015 • Cogswell Transformed • National Award of Excellence

Canadian Society of Landscape Architects (CSLA/AAPC)
2008 • Point Pleasant Park Comprehensive Plan • Excellence
2006 • Point Pleasant Park Competition • Merit
2005 • Harbour Passage Greenway (with DKG Ltd.) • Regional Merit

American Society of Landscape Architects (ASLA)
2006 • New York Times Tower microclimate study

Author

Leblanc, Rob and Brown, R. "Designing Invisible Landscapes." *Landscapes–Paysages* 18.4 (2017). Print.
Leblanc, Rob. "Immersive 3D: The Gaming World and the Real World Converges." *Landscapes–Paysages* (2017).
Leblanc, Rob. "You Can Take it With You." *Landscapes–Paysages*, (2016). Print.
Leblanc, Rob and Brown, R. "Microclimate." *Landscape Architectural Graphic Standards*. City: Publisher, 2008. Page(s). Print.
Microclimatic Design of Rooftop Gardens and Urban Courtyards", New York Times Tower. For the International Federation of Landscape Architects, 2003.
Leblanc, Rob and Brown, R.D. "Microclimate Modification: Site Adjustments to Reduce Maintenance Costs and Improve Player Comfort on Your Golf Course." *GreenMaster Magazine*. August 2001: Print.
Leblanc, Rob. and Brown, R.D. "The Use of Riparian Vegetation in Stream–Temperature Modification." *Water and Environment Journal* 14.4 (2000): 297–303. Print.

Professional service

Downtown Halifax Design Review Committee • 2015–present • Vice Chair
Landscape Paysage Magazine • 2015–present • Editorial Board
Licensed Professional Planners Association of Nova Scotia (LPPANS) • 2014–present • Board member
Atlantic Provinces Assoc. of Landscape Architects (APALA) • 2000–2006 • past-president

Committees & Boards

Downtown Halifax Design Review Committee • 2015–present • Vice Chair
Landscape Paysage Magazine • 2015–present • Editorial Board
Licensed Professional Planners Association of Nova Scotia (LPPANS) • 2014–present • Vice-president & Board member
Atlantic Provinces Assoc. of Landscape Architects (APALA) • 2000–2006 • past-president

Lecturer/guest critic/speaker

University of Guelph
Dalhousie university

Chris Crawford, *Discipline director, Architecture*

Ekistics Planning & Design



A 10-year veteran in the field of architecture, Chris has worked on a number of high profile assignments—from large scale, mixed use projects with Budgets in excess of \$180 million, right down to the award-winning design of a 1000 square foot retail space.

Chris' diverse experience has given him the necessary skills to manage large projects, while staying focused on small scale details. This approach offers clients the advantage of a broader and more informed design viewpoint.

One recent project stands out as an excellent example of his abilities. Chris was project architect on the LEED gold Dominion building, the first major development for the Wright and Burnside business campus. Chris managed all aspects of this project from design and construction documentation, through to construction administration and field review.

Chris enjoys being a part of a design firm that has landscape architecture, planning, and interior design in house as it provides an invaluable knowledge base for each respective discipline to draw from.

RECENT PROJECTS

ARCHITECTURAL

Mi'kmaw Native Friendship Centre
Project Architect
2017 ■ Halifax, NS ■ Project Architect

Cavendish Campground Entrance Rehabilitation
Prince Edward Island National Park
2016 ■ Cavendish, PEI ■ a Project Architect

Terra Nova National Park Entrance Rehabilitation
Terra Nova National Park
2016 ■ Terra Nova, NL ■ Project Architect

Spring Garden West, 30 story mixed use tower
for Spring Garden Rd
2015 ■ Halifax, NS ■ project architect

Canso Causway Swing bridge Operators Tower
2015 ■ Cape Breton, NS ■ Project architect

Dexel Development Agreement, Residential
development for Pepperell, Robie Street
2015 ■ Halifax, NS ■ Design architect

Batoche National Historic Site, Viewing tower,
Picnic Shelter, Viewing Lens
2015 ■ Batoche, SK ■ Project architect

Flynn Flats / Dexel Development
2016 ■ Halifax, NS ■ Design Architect

7 storey mixed-use development

INTERIOR DESIGN & PLACE BRANDING

South Shore Public Libraries
Lunenburg Branch Relocation
2016 ■ Lunenburg, NS ■ Project Architect

Delmore Buddy Daye Learning institute
2017 ■ Halifax, NS ■ Project Architect

Mezza Sackville restaurant
2015 ■ Halifax, NS ■ project architect

Mezza Scotia Square restaurant
2014 ■ Halifax, NS ■ project architect

Lunenburg signange: Construction Detail package
2015 ■ Lunenburg NS ■ construction drawing

INTERPRETIVE PLANNING AND DESIGN

Batoche National Historic Site, Viewing tower,
Picnic Shelter, Viewing Lens
2015 ■ Batoche, SK ■ Project architect

Red Bay place branding and way finding
2015–16 ■ Red Bay, NL ■ design strategy and signage

CHRIS CRAWFORD MARCH BEDS LEED AP

EDUCATION

Master in Architecture
2006 ■ Dalhousie University

Bachelor in Environmental Design Studies
2004 ■ Dalhousie University

Bachelor of Science, Major in Psychology, candidate
2002 ■ Saint Mary's University

CERTIFICATION

NSAA Registered Architect
LEED AP

MEMBERSHIPS AND PROFESSIONAL AFFILIATIONS

Nova Scotia Association of Architects (NSAA)
Canadian Green Building Council (CaGBC)

EMPLOYMENT HISTORY

Ekistics Planning & Design, Discipline Director,
Architecture
2014–present ■ Dartmouth, Canada

Breakhouse
2011–14 ■ Halifax, NS ■ Project Architect

Lydon Lynch Architects
2006–11 ■ Halifax, NS ■ Intern Architect

Suters Architects
2008–09 ■ Brisbane, QLD ■ Intern Architect

AWARDS

Lieutenant Governor medal of excellence in architecture
Batoche National Historic Site Redevelopment 2017

Retail council Canada award winner 2013
Shaw Communications Retail

PROFESSIONAL SERVICE

Planning Research Focus
Public Engagement
Collaborative Design Processes
Food Security
Urban and Rural Food Systems

PREVIOUS ARCHITECTURAL EXPERIENCE

LYDON LYNCH ARCHITECTS (2006–11)

1592 Barrington Office Building 2011 ■ Halifax, NS ■ Design	Wright and Burnside 60,000 sq.ft LEED Gold office building, Architecture, Interior Design 2010 ■ Dartmouth, NS ■ Project Architect
Halifax Seaport Farmers Market 2010 ■ Halifax, NS ■ Design Through to Construction documentation	Waterside Centre, LEED gold Office Building 2010 ■ Halifax, NS ■ project designer
Lunenburg County Life Style Center 2011 ■ Bridgewater, NS ■ architect	WDCL WDC-1 Development study Dartmouth site 2010 ■ Dartmouth, NS ■ project lead
	WDCL Cunard block development study 2010 ■ Halifax, NS ■ project lead

BREAKHOUSE (2011-14)

Shaw Communications Retail 2014 ■ Nine stores in Western Canada ■ project architect	The Auction House 2014 ■ Halifax, NS ■ Project Architect
Kredl's Corner Market 2013 ■ Halifax, NS ■ Construction doc /Code Review	Halifax Seaport Farmers Market renovations 2014 ■ Halifax, NS ■ Project Designer
Kelsey's restaurant major renovation and re-brand 2013 ■ Toronto, ON ■ project architect	BMO center Major renovation 2013 ■ Halifax, NS ■ project architect
Topsail Apartments 2013 ■ St.Johns, Nfld ■Project Architect	Edna 2013 ■ Halifax, NS ■ Architectural review / technical drawings
Local Public House 2012 ■ Bridgewater, NS ■ Project Architect	The Grainery Lofts Interior Design 2014 ■ Halifax, NS ■ Architect

SUTERS (2008–09)

Schools for Building Education Revolution program 2009 ■ Brisbane, QLD ■ project lead	Red Cap Office Interior renovation 2008 ■ Halifax, NS ■ project architect
Mixed use Transit Oriented Development, 2009 ■ Brisbane, QLD ■ project designer	Henderson Moore major Condo Renovation 2008 ■ Halifax, NS ■ project architect
Richlands Pharmaceutical manufacturing facility 2008 ■ Brisbane, QLD ■ construction drawing	Pictou Landing Health Centre 2006 ■ Pictou, NS ■ construction drawing, construction supervision
Thursday Island Chronic Disease Centre 2008 ■ Thursday Island, QLD ■ construction drawing	

INDEPENDENT WORK

PERSONAL

Red Cap Office Interior renovation 2008 ■ Halifax, NS ■ project architect
Henderson Moore major Condo Renovation 2008 ■ Halifax, NS ■ project architect
Pictou Landing Health Centre 2006 ■ Pictou, NS ■ construction drawing, construction supervision

Devin Segal, *Landscape Architect*

Ekistics



Devin is a landscape architect with an interest in the design of public open space, including waterfront development, park planning, urban design, and streetscape redevelopment. In addition to design work, he has extensive experience in landscape construction, building and managing residential, commercial, and community projects.

Devin has an intense passion for detail and is highly dedicated to precision at all stages of a project, from master plans to site-specific installations. Always with a view towards implementation, his talent is in carrying projects through from concept to full realization. He continues to refine his practice to produce custom design solutions for his clients that are beautiful, contemporary, innovative, and ultimately buildable.

Devin is a skilled project manager and has led most of the firm's detailed design and landscape construction projects over the last three years. In addition to managing budgets and coordinating design projects with multi-disciplinary consultant teams, he is also responsible for administering construction contracts

and performing quality control site inspections.

He is also actively involved in many of the company's municipal and community projects; building consensus by engaging stakeholders, and facilitating meaningful public meetings and workshops.

DEVIN SEGAL ML ARCH B EDV D
OALA APALA CSLA

EDUCATION

Master of Landscape Architecture
2012 ■ University of Manitoba

Bachelor of Environmental Design
2009 ■ University of Manitoba

CERTIFICATION

Full Member – Seal and Certificate - Ontario
Association of Landscape Architects (OALA)

Full Member – Seal and Certificate - Atlantic Provinces
Association of Landscape Architects (APALA)

EMPLOYMENT HISTORY

Ekistics Planning & Design
2012–present ■ Dartmouth, NS ■ Landscape Architect

Green Ideas Landscape Design, Inc.
2012 ■ Halifax, NS ■ Landscape Designer/Construction
Supervisor

Brava Creations - Landscape Design Build
2007–2011 ■ Winnipeg, MB ■ Designer/Builder

PROFESSIONAL SERVICE

Downtown Dartmouth Business Commission
2014 - ongoing ■ Board of Directors

Atlantic Provinces Association of Landscape Architects
2017 - ongoing ■ Communications Committee

MEMBERSHIPS AND PROFESSIONAL AFFILIATIONS

Canadian Society of Landscape Architects (CSLA)

Ontario Association of Landscape Architects (OALA)

Atlantic Provinces Association of Landscape Architects
(APALA)

AWARDS—ACADEMIC

Student Award of Merit
2012 ■ Canadian Society of Landscape Architects

J.A. Bombardier SSHRC Graduate Scholarship
2010–11 ■ Social Sciences and Humanities Research
Council

Manitoba Graduate Scholarship
2009 ■ Government of Manitoba

Graduate Fellowship
2009 ■ University of Manitoba

AWARDS—PROFESSIONAL

Atlantic Planners Institute (API) Award of Planning
Excellence - Physical Plans & Design

2017 ■ Fort Needham Park Master Plan

2016 ■ Summerside Core Area Plan

2015 ■ Downtown Bridgewater - Pijiniuiskaq Park and
King St. Redevelopment

2013 ■ Bridgewater Downtown & Waterfront Master
Plan

Azure People's Choice Award for Experiential Graphic
Design

2017 ■ Batoche National Historic Site

Canadian Institute of Planners (CIP) Award for
Planning Excellence: Neighbourhood Planning

2015 ■ Cogswell Interchange Lands Plan

LANDSCAPE ARCHITECTURE, URBAN DESIGN, AND CONSTRUCTION MANAGEMENT

Argyle and Grafton Shared Streetscapes
2015–17 ■ Halifax, NS ■ project manager, lead
designer, construction inspector

Cornwallis Park Redevelopment
2015–17 ■ Halifax, NS ■ project manager, lead
designer, construction inspector

Fort Needham Memorial Park Redevelopment
2014–15 ■ Halifax, NS ■ designer, construction
inspector

Queen's Marque Development
2015–ongoing ■ Halifax, NS ■ project manager and lead
designer - landscape

King's Wharf Building E
2017–ongoing ■ Dartmouth, NS ■ project manager and
lead designer - landscape

Main Street Yarmouth Redevelopment
2014–17 ■ Yarmouth, NS ■ project manager, lead
designer, construction inspector

Terra Nova National Park Entrance Rehabilitation
2016–17 ■ Terra Nova, NL ■ project designer

Cavendish Campground Entrance and Visitor Centre
2016–17 ■ Cavendish, PE ■ project designer

Downtown Bridgewater - Pijiniuiskaq Park and King St.
Redevelopment
2014–16 ■ Bridgewater, NS ■ project manager, lead
designer, construction inspector

Batoche National Historic Site Redevelopment
2015–16 ■ Batoche, SK ■ project manager and lead
designer - landscape

Maple
2013–16 ■ Halifax, NS ■ landscape project manager,
lead designer, construction inspector

Dingle Park Playground
2016 ■ Halifax, NS ■ project manager, lead designer,
construction coordinator (design-build)

Erindale Estates Neighbourhood Park

2013–16 ■ Eastern Passage, NS ■ project manager,
lead designer

River Ridge Common Park and Trails
2016 ■ New Germany ■ project manager and lead
designer

Eon Square Business Campus
2015–16 ■ Bedford, NS ■ project manager and lead
designer

North Sydney Downtown Orientation Plaza
2015 ■ North Sydney, NS ■ project manager and lead
designer - landscape

Fort Needham Memorial Park Redevelopment Master
Plan
2014–15 ■ Halifax, NS ■ project manager and lead
designer

Penhorn Lake Area Greenway Development Plan
2015 ■ Dartmouth, NS ■ project manager and lead
designer

BlueFrog Business Campus
2014 ■ Dartmouth, NS ■ project manager, lead
designer, construction inspector

Sanford Fleming Park Stair Replacement
2014 ■ Halifax, NS ■ project manager, lead designer,
construction inspector

Cogswell Interchange Lands Plan
2013–14 ■ Halifax, NS ■ lead designer

Sydney Harbourfront Conceptual Vision and Design
2013–14 ■ Sydney, NS ■ designer

Victoria Park Comprehensive Plan
2013 ■ Charlottetown, PE ■ lead designer

Charlottetown Waterfront Master Plan
2012–2013 ■ Charlottetown, PE ■ designer

Hopedale Mission National Historic Site of Canada
2012 ■ Hopedale, NL ■ lead designer - landscape



Roger Boychuk, P. Eng. is a Senior Transportation and Municipal Engineer with Fathom Studio and has over two decades of progressive consulting experience in transportation and traffic engineering, municipal engineering, asset management, planning and design, construction and field inspection services. Prior to Fathom, he has served in General Management and Department Management (Transportation and Municipal Engineering) roles and has held a variety of different roles as a Project manager, Portfolio Manager, and as a Senior technical Engineer and team leader.

As a registered professional engineer based in the Province of Nova Scotia, he has successfully completed projects throughout Canada and internationally in the United States, Mexico, South America and Africa. He is an active personal and professional leadership development practitioner and has significant public speaking and presentation experience, including being involved in or leading a long list of public consultations, workshops and presentations.

Certifications Association of Professional Engineers of Nova Scotia (APENS) • 2009–present • certificate • Nova Scotia | Masters Certificate in Project Management • 2007 • St. Mary's University, NS

Work experience

Years active: 20+

Bachelor of Science in Engineering (Civil)

1995 • University of Manitoba, MB

Memberships and professional affiliations

Association of Professional Engineers of Nova Scotia (APENS) • 2009 • Member

Member of the Institute of Transportation Engineers • 2005 • Member

Fathom history (2014–present)

Engineering

Stay Healty Main Street. One-Way Street Pilot Project Design and Safety Review

2020 • Wolfville, NS • transportation engineer

Dundas Street and PAPA Intersections

2020 • Halifax Regional Municipality, NS • Intersection, AT, and traffic signal design

Spring Garden Road AT and Transit Corridor Concept Development and Schematic Design

2019 • Halifax, NS • transportation engineer

South Park Development and Off-Street Bike Lanes Detailed Design

2019 • Halifax, NS • transportation engineer

Richmond Street Development Site Design and Watercourse / AT Trail Relocation

Ongoing • Dartmouth, NS • transportation engineer

Argyle and Grafton Shared Street Design and construction

2018 • Halifax, NS • transportation engineer

Downtown Sydney Urban Core Plan

2017 • Sydney, NS • transportation engineer

Rocky Lake Lands Transportation Investigation

2017 • HRM, NS • transportation engineer

Argyle Shared Street Detailed Design

2017 • HRM, NS • transportation engineer

Quinpool Road Transportation Impact Statement

2017 • HRM, NS • transportation engineer

Old Bridge Landing Construction Services

2016 • Bridgewater, NS

Variety of Transportation Impact Statements and Studies

2016–17 • Various Locations • transportation engineer

Kingswood Resort Village, Site Design

2015 • Fredericton, NB • transportation engineer

St. Antonio Church, Civic Commissioning

2015 • Halifax, NS • transportation engineer

Susies Lake Transportation Analysis

2015 • Halifax, NS • transportation engineer

Penhorn Lake Area Greenway Development Plan

2015 • Halifax, NS • transportation engineer

Dexel Spring Garden & Pepperell Developments, Municipal & Transportation Design

2015 • Halifax, NS • transportation engineer

North Aspy Bridge Replacement

2015 • Cape Breton, NS • transportation engineer

Traffic Management Plans for Bridge Rehabilitations for Various Locations

2015 • Cape Breton, NS • transportation engineer

Dartmouth Cove Transportation Study

2015 • Dartmouth, NS • transportation engineer

Reeves Street Complete Street

2015 • Port Hawkesbury, NS • transportation engineer

Sherwood Golf Course Subdivision Design

2015 • Chester, NS • transportation engineer

Main Street Yarmouth Redevelopment

2014 • Yarmouth, NS • transportation engineer

South Park Transportation & Municipal Engineering

2014 • Halifax, NS • transportation engineer

Old Bridge Landing Park and King St Redevelopment

2014 • Bridgewater, NS • transportation engineer

May Street Development

2014 • NS • transportation engineer

Avonhurst Development

2014 • NS • transportation engineer

Concord Way Development

2014 • NS • transportation engineer

Previous experience

SNC-LAVALIN INC (2005–2014 | manager, civil/transportation engineering, general manager

Various Non-Destructive Testing, Asset Management and Environmental Projects
Various Locations

Cogswell Interchange Lands Plan, Halifax Regional Municipality
Halifax, NS (2013)

Development of Motherhouse Lands-Traffic Impact Study, Southwest Properties
Halifax, NS (2013)

Modal Split Cordon Counts
HRM, Nova Scotia (2007–2014)

Conversion of Armdale Rotary to a Modern Roundabout,
Halifax, NS

Legion Road Traffic Impact Study
Conception Bay, Newfoundland (2011)

Town of Yarmouth Active Transportation Plan
Yarmouth, NS (2011)

Town of Kingsville: Active Transportation Plan
Kingsville, ON

Downtown Amherst Action Strategy
Amherst, NS

Highway 102, Exit 9, Trunk 14 Interchange
NSTIR-NS

Highway 104 Beechhill Road Interchange
NSTIR-Antigonish, NS

Design of McCutcheon Road Upgrade Ranges and Training Area
CFB Gagetown-Oromocto, NB

Chain of Lakes Trails Association (COLTA) Connectivity and Functional Alignment
HRM, NS (2010–2012)

Kings Wharf Site Development, WM Fares Inc
Dartmouth, NS (2009–2014)

Halifax Peninsula Traffic Model
Halifax, NS (2009)

Municipality Utility Services Upgrade for the Medium Heavy Lift Helicopter Hangar Program, CFB Petawawa
Petawawa, Ontario

Traffic Projections and Lane Requirements BeaverBank West Interchange and Highway 104 Antigonish Interchanges
NSTIR-NS

Chebucto Road Reversing Lane Project
Halifax, NS (2006)

Traffic Study-Route 60, Conception Bay South Town of Conception Bay South, NL(2008)

Park and Ride Facilities
Halifax Regional Municipality, NS

Mount Uniacke Public Transit Feasibility Study
East Hants, NS

Lunenburg Public Transportation Feasibility Study
Lunenburg, NS

Allan Street Neighbourhood Shortcutting Study
Halifax, NS

Expert Witness Testimony and Lead Transportation Engineer for a Can-Euro Site development planning appeal
Dartmouth, NS (2005)

Sobeys Atlantic and ECL Properties Ltd.
Project manager and lead traffic engineer for various traffic impact studies in the Atlantic provinces

Emergency Access and Parking Review, South Shore Regional Hospital
Bridgewater, NS

Traffic Impact and Master Planning Studies, Various Clients and Locations

Prior to SNC-LAVALIN (2000–2005)

Bedford West Master Plan Traffic Study
HRM, NS

BURNAC Commercial Development Traffic Impact Study, AtlanPlan
Sydney, NS

Sobeys Store Traffic Impact Study,
Coldbrook, NS

Fredericton Mall Expansion Traffic Impact Study
Fredericton, NB

Glendale Lands Church and Commercial Development Traffic Impact Study
Sackville, NS

Bridgewater Shopping Centre Expansion Traffic Impact Study, Crombie Properties Ltd
Bridgewater, NS

Halifax Bridge Capacity Study, Halifax Regional Municipality and Halifax Dartmouth Bridge Commission
HRM, NS

Burnside Connector Study
HRM, NS

Update, Recalibration and Alternatives Analysis of the HRM Regional QRSII Transportation Planning Model
HRM, NS

Highfield Square Site Alternatives and Parking Review, Crombie Properties Ltd.
Moncton, NB

Fredericton Mall Vehicle and Pedestrian Circulation and Parking Review
Fredericton, NB

Park Lane Lay-By, Traffic and Pedestrian Operational Review
HRM, NS

Glen Arbour Subdivision Traffic Signal Analysis
HRM, NS

Granville Street Road Safety Audit and Operational Review
Summerside, PE

Niagara Street Safety Audit, City of Welland
Welland, ON

Winnipeg Perimeter Highway Road Safety Review
Winnipeg, MB

PR 206 & PR 207 Road Safety Audit , Manitoba Transportation & Government Services
MB

PTH 11 & PR 304 Road Safety Audit, Manitoba Transportation & Government Services
MB

2003 Road Safety Audit Program of 15 locations, Town of Pelham
Pelham, ON

Rail Crossing Safety Assessment, Merivale Rd.
Ottawa, ON

Winnipeg Safer City Intersection Improvement Pilot Study, City of Winnipeg
Winnipeg, MB

Intersection Safety Audit Program
Ottawa, ON

Research and development of curriculum for Safety Conscious Design for Vulnerable Road Users course learning guide and workshops
Transportation Association of Canada (TAC): (2004/2005)

Curriculum Development (assisted) for TAC Urban Geometric Design Workshops
(TAC:2004)

Curriculum Development (assisted) for TAC Geometric Design Guide 4-day workshops
(TAC: 2001/2002)

Organization, Supervision, Execution and Analysis of Various Traffic Engineering Field Studies

Airport Access Traffic Study for the Pearson International Airport Upgrading, GTAGA
Mississauga, Ontario

Portage Avenue Downtown Traffic Study
Winnipeg, MB

Highway 407 Safety Advisor Team, Research Engineer and Technical Analyst, SLF 407 Design Consortium
Toronto, ON

Curriculum Development (assisted) for TAC Geometric Design Guide Seminar Series
(TAC: 1999)

3.0 PROPOSAL FORM

NAME OF PROPONENT: Fathom Studio

Do not include HST in the Amount of Proposal. All of the below pricing is to be in Canadian Dollars.

Amount of Proposal.....	\$ <u>38,300</u>
HST.....	\$ <u>5745</u>
Total.....	\$ <u>44045</u>

Please attach the following additional information:

- Start and end time required to complete the work.
- Two relevant work references and contact phone numbers.

Mailing Address 1 Starr Lane
Dartmouth, NS, B2Y4V7

Phone Number 902-483-2424

Email Address rob.leblanc@fathomstudio.ca

Signature 

Print Name & Title Rob LeBlanc, Founder

Date June 30, 2022

Witness 

Date June 30, 2022

Details of Proposal – please attach your submission details as required in this RFP.

3.0 PROPOSAL FORM

NAME OF PROPONENT: Fathom Studio

Do not include HST in the Amount of Proposal. All of the below pricing is to be in Canadian Dollars.

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Dartmouth, NS, B2Y4V7

Phone Number 902-483-2424

Email Address rob.leblanc@fathomstudio.ca

Signature 

Print Name & Title Rob LeBlanc, Founder

Date June 30, 2022

Witness 

Date June 30, 2022

Details of Proposal – please attach your submission details as required in this RFP.

Debert Community Plan

Planning

The Municipality of Colchester retained Fathom to prepare a conceptual master plan for 42 acres of land in Debert, Nova Scotia. The proposed affordable community development included a mixed use community with 66 single family homes, 94 town homes and 368 multi-family homes. The plan also provided for active transportation trails

and 2 large community parks as part of the plan. The process included workshops with the local steering committee and presentations to council and the community, weighing the pros and cons of 2 development concepts. Fathom also was engaged for the traffic study and community design guidelines for the neighbourhood.

Location

Debert, Nova Scotia

Client

Municipality of Colchester

Budget

\$30k

Firm of Record

Fathom Studio

Timeframe

2022



Stratford Urban Core Plan

Planning, urban design, transportation planning, civil engineering

Fathom, working for Concorde properties, developed a master plan for over 100 acres of land in central Stratford, one of the fastest growing communities in Canada. The plan outlines future development potential to build over 2,500 units over the next decade which provides a wide range of housing types from traditional single family homes to, townhomes, semis and multi-units. The plan also allots 300k sq.ft. of new commercial and almost 50k sq.ft. of new industrial land.

The focus of the development is a new urban core with buildings in the 10-15 storey range, new urban parks and a connective active transportation network throughout the new core. The work completed for this project includes the new master plan, 3D massing studies, the traffic impact study, and the planning and policy analysis. Fathom will be taking the project through the plan amendment and rezoning through 2020.

Location

Stratford, PEI

Client

Concorde Properties

Budget

Undisclosed

Firm of Record

Fathom Studio

Timeframe

2020



Turtle Grove Land Use Master Plan

Planning, Urban Design

This report prepared by Fathom demonstrates the adoption of contemporary planning ideals to ensure that Millbrook First Nation's Urban Reserve will foster economic development for both First Nations residents and HRM. Central to crafting a long-lasting economic development strategy for the land, is the adoption of urban design principles which blend commercial development, housing, open space and recreation as well as environmental conservation.

The Shannon Park site is made up of 81.8 acres

of land controlled by Canada Lands Company (plus the 4.7 acre school site) and 9.9 acres of land controlled by Millbrook First Nation. Both Millbrook and Canada Lands Company (CLC) have worked together over the past 2 years to craft a development plan that coordinates their respective interests while realizing the synergies of working together towards a common high-quality development for HRM and the individual developers.

Location

Dartmouth, Nova Scotia

Client

Millbrook First Nation

Budget

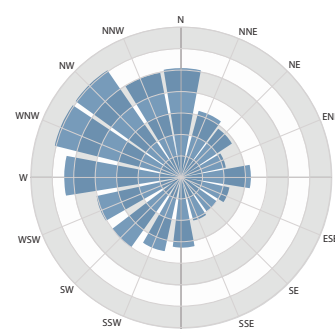
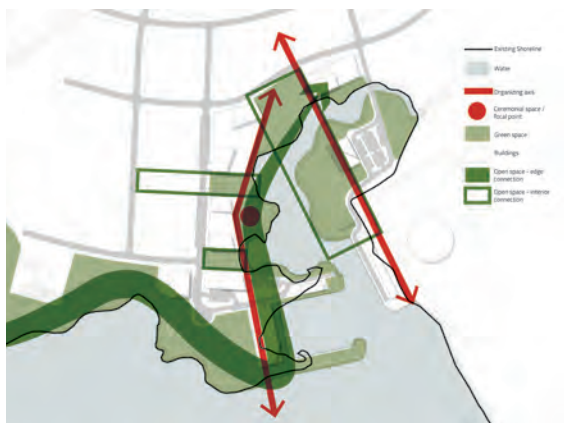
\$110,000

Firm of Record

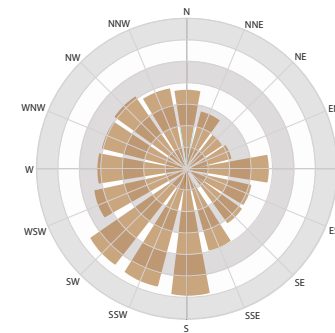
Fathom Studio

Timeframe

2018



Winter Winds (November to April)



Summer Winds (May to October)

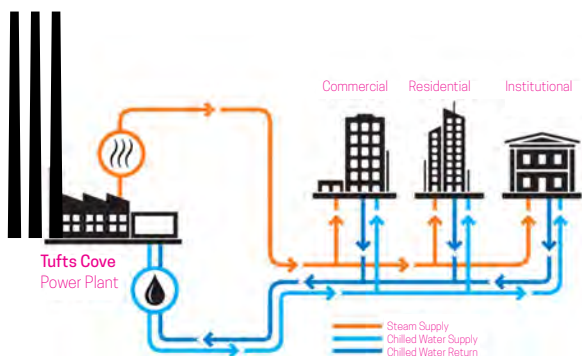


Figure 1.0. Tufts Cove District Energy



Figure 6.13 Active Open Space Areas



Figure 6.14 Stormwater Management Precincts

Twin Oaks Development Moncton

Planning, architecture, traffic impact, civil engineering

Fathom, working for Cordova Developments, prepared a master development plan for the Moncton's first new Development Charges Bylaw area. The plan calls for 519 units on 13.2 acres of land (40 units per acre), including multi-unit homes, stacked townhomes and a mixed use commercial development on the groundfloor in some of the buildings. Fathom navigated the rezoning process, our work included a traffic impact study, planning rezoning, architectural design for the first building in the development, shade and microclimate study,

and stormwater management plans.

A series of gardens and ponds preserve a large park area for managing stormwater runoff from the development. All multi-units include underground parking, and an active transportation trail is planned along Twin Oaks Drive which was recently constructed in 2019 by the City of Moncton. The new road costs will be recouped through the Development Charge Bylaw as these properties are developed.

Location

Moncton, NB

Client

Cordova Developments

Budget

Undisclosed

Firm of Record

Fathom Studio

Timeframe

2020



Sydney Urban Core Plan

Planning

Like many downtown areas in Canada, downtown Sydney is no longer the focus of retail activity. In the face of decline, CBRM commissioned a downtown study to find ways to rejuvenate the downtown.

The Urban Core plan lays out a framework for a series of improvements including reconnecting downtown back to its waterfront, encouraging more residential development in the downtown, redesign of the historic Main Street (Charlotte

Street) to make it more pedestrian and cyclist friendly, a signature urban plaza space, a series of small parkettes, and other programs like a facade incentive program, a branding and signage program, a new parking plan, and updates to planning policy.

The Urban Core Plan lays out a plan for \$10.5m in spending on dozens of improvement projects over the next 5 to 10 years. The plan also sets a target for 300 new residential units in the downtown over the next 20 years.

Location

Sydney, Nova Scotia

Client

Cape Breton Regional Municipality

Budget

\$10.5M

Firm of Record

Ekistics Plan + Design

Timeframe

2017



Summerside Downtown Urban Core Plan

Planning, campus planning, urban design

Fathom Studio was retained to prepare a comprehensive urban development strategy for downtown Summerside linking its historic downtown to a new urban waterfront district. The plan employed tools for reinvigorating the existing downtown fabric (facade programs, signage and wayfinding, active transportation, etc.) and developed a new land use strategy for development on the waterfront (new marina, new medium density development parcels, conversion of parking lots to development sites,

road dieting, and relocation of the Confederation Trail)). The plan also imagines a new Holland College urban campus situated along the waterfront. For the future campus have planned new urban blocks with onstreet parking, groundfloor active uses, residential dormitories, and signature outdoor learning spaces. The plan images a new large waterfront park and outdoor venue space linking downtown to the waterfront and Holland College.

Location	Summerside, PEI
Client	Port of Summerside
Budget	\$50,000
Firm of Record	Ekistics Plan + Design
Timeframe	2015-2016



Cogswell Interchange Master Plan

Planning

Cogswell Transformed is one of the largest urban redevelopment initiatives in Atlantic Canada. The project removes a 1960's era highway interchange from the entrance to downtown Halifax to create a new 16-acre neighbourhood designed to unite the city's north end with the downtown.

The ambitious but achievable plan balances

the needs of disparate disciplines across a wide range of municipal and provincial departments from planning, traffic, municipal services, active transportation, urban design, parks, and transit, to transform a divisive physical reminder of Halifax's past and create an inspirational and contextual solution for the city's future.

Location

Halifax, Nova Scotia

Client

Halifax Regional Municipality

Budget

Undisclosed

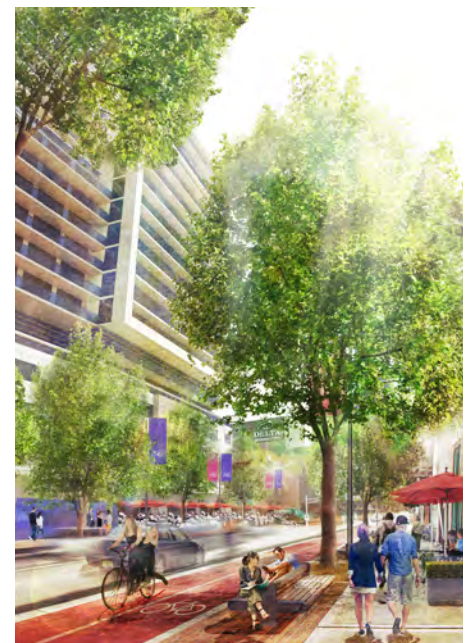
Firm of Record

Ekistics Plan + Design

Timeframe

2014-2015

Honours Canadian Institute of Planners (CIP) National Awards for Planning Excellence 2015 • Neighbourhood Planning
Atlantic Planners Institute (API/IU) Award of Planning Excellence 2015 • Physical Plans & Design





Rob's professional experience spans a variety of project types in all parts of the globe. As Founding Partner of Fathom Studio, he has been the senior project manager for many of the firm's projects since its inception in 1996, leading large multi-disciplinary teams from concept to implementation. Rob is a landscape architect, an urban planner, and a LEED Green Associate with a special interest in waterfront planning, green development, urban design, landscape ecology, park planning, downtown redevelopment and campus/school planning.

Rob has led hundreds of millions worth of construction projects in his 25-year career including parks, golf courses, downtowns, waterfronts, institutional facilities and private developments. And as a member of the International Association for Public Participation, Rob is committed to extensive public and client engagement as a necessary stage of every project.

Rob's passion is integrating new technology into every new project (Virtual and Augmented Reality, aerial drones, infrared thermal imaging and wind monitoring technologies). He hosts a regular technology column called LandTec in the CSLA's quarterly magazine 'Landscape - Paysage'. Rob has spent the last 5 years developing a cloud-based project management tool called GroupThing to streamline the company's efficiency and improve project delivery.

Certifications American Society of Landscape Architects (ASLA) • 2000–present • USA | Canadian Institute of Planners (MCIP) • 2000–present • Canada | Licensed Professional Planner of Nova Scotia (LPPANS) • 2008–present • Nova Scotia | LEED Green Associate (LEED-GA) • 2006–present | Atlantic Provinces Association of Landscape Architects • 2006–present • APALA

Work experience

Years active: 25+

Master of Landscape Architecture, MLA

1994 • University of Guelph, ON

Bachelor of Design in Environmental Planning

1992 • NSCAD University, NS

Bachelor of Science, B.Sc. BioChemistry

1989 • Dalhousie University, NS

Golf Course Design Summer Course

2000 • Harvard University, Boston, MA, USA

Memberships and professional affiliations

Fellow of the Canadian Society of Landscape Architects (CSLA/AAPC) • 2010–present • Fellow

American Planning Association (APA) • 2005–present • Member

International Association of Landscape Ecologists (IALE) • 2000–present • Member

Soil and Water Conservation Society (SWCS) • 2000–present • Member

Canadian Landscape Reclamation Association (CLRA/ACRS) • 2001–present • Member

US Green Building Council (USGB) • 2008–present • Member

International Association of Public Participation (IAP2) • 2010–present • Member

Fathom history (1996–present)

Urban planning

Province House Heritage District Streetscape Plan

2020–21 • Charlottetown, PE • Principal in Charge

Town of Canso Community Enhancement Program

Ongoing • Canso, NS • Principal in Charge

NSCC Marconi Campus Master Plan

2018 • Sydney, NS • Principal in Charge

Sydney Urban Core Plan

2016 • Sydney, NS • Principal in Charge

Sydney Tar Ponds and Coke Ovens Master Plan

2012 • Sydney, NS • Principal in Charge

Glance Bay and Area Revitalization Plan

2017 • Glance Bay, NS • Principal in Charge

Summerside Urban Core & Holland College Plan

2016 • Summerside, PE • Principal in Charge

Destination Reeves Street

2015 • Port Hawkesbury, NS • Principal in Charge

Agritec Business Campus Master Plan

2016 • Truro, NS • Principal in Charge

Labrador West Regional Growth Strategy

2014 • Labrador City, NL • Principal in Charge

Main Street Yarmouth Redevelopment

2014–17 • Yarmouth, NS • Principal in Charge

Terra Nova National Park Entrance Rehabilitation

2016–17 • Terra Nova National Park, NL • Principal in Charge

Cavendish Campground Entrance and Visitor Centre

2016–17 • Cavendish, PE • Principal in Charge

Downtown Bridgewater—Pijiniuiskaq Park and King St. Redevelopment

2014–16 • Bridgewater, NS • Principal in Charge

Batoche National Historic Site Redevelopment

2015–16 • Batoche, SK • Principal in Charge (LA)

Sydney Harbourfront Plan

2013 • Sydney, NS • Principal in Charge

Cogswell Interchange Redevelopment Plan

2013 • Halifax, NS • Principal in Charge

Cunard Block Redevelopment

2012 • Halifax, NS • Principal in Charge

Spring Hill Beautification Plan

2012 • Springhill, NB • Principal in Charge

Trenton Main Street Plan

2011 • Trenton, NS • Principal in Charge

Mabou Village Plan

2011 • Mabou, NS • Principal in Charge

Antigonish Gateway Plan

2011 • Antigonish, NS • Principal in Charge

Shelburne Downtown Plan

2011 • Shelburne, NS • Principal in Charge

Lisbon Downtown Plan

2011 • Lisbon, ME, USA • Principal in Charge

Zowara Green City Master Plan

2010 • Morocco • Principal in Charge

Chéticamp Village Plan

2010 • Chéticamp, NS • Principal in Charge

Augusta Green Downtown Plan, USA

2010 • Augusta, ME, USA • Principal in Charge

Bucksport Green Downtown Plan, USA

2010 • Bucksport, ME, USA • Principal in Charge

Lisbon Falls Green Downtown Plan, USA
2010 • Lisbon, ME, USA • Principal in Charge

Millinocket Green Downtown Plan, USA
2010 • Millinocket, ME, USA • Principal in Charge

Norway Green Downtown Plan, USA
2010 • Norway, ME, USA • Principal in Charge

Presque Isle Green Downtown Plan, USA
2010 • Presque Isle, ME, USA • Principal in Charge

Farmington Green Downtown Plan, USA
2010 • Farmington Green, ME • Principal in Charge

Amherst Downtown Plan
2010 • Amherst, NS • Principal in Charge

Downtown Truro Facade Incentive Program
2009 • Truro, NS • Principal in Charge

New Glasgow Urban Design Study
2009 • New Glasgow, NS • Principal in Charge

Bedford South Master Plan
2009 • Halifax, NS • Principal in Charge

University and commercial campus planning

Dalhousie University Green Corridor Plan
2017 • Halifax, NS • Principal in Charge

Slemon Park & Holland College Plan
2017 • Summerside, PE • Principal in Charge

Seton Ridge (MSVU) Master Plan
2016 • Halifax, NS • Principal in Charge

Brunswick US Naval Base Redevelopment Plan
2010 • Brunswick, ME, USA • Principal in Charge

Mount St Vincent University Campus Master Plan
2010 • Halifax, NS • Principal in Charge

Mount Saint Vincent University Master Plan
2008 • Halifax, NS • Principal in Charge

Debert Air Industrial Park Master Plan
2007 • Debert, NS • Principal in Charge

Kingstec College Campus Master Plan
2004 • Kentville, NS • Principal in Charge

Acadia University Campus Landscape Master Plan
2000 • Wolfville, NS • Principal in Charge

Waterfront planning

Town of Port Hawkesbury Waterfront Plan
Ongoing • Port Hawkesbury, NS • Principal in Charge

Baddeck Waterfront Conceptual Plan
Ongoing • Baddeck, NS • Principal in Charge

Lunenburg Waterfront Vision (WDCL)
2018 • Lunenburg, NS • Principal in Charge

Borden Waterfront & Tourism Plan
2017 • Borden, PE • Principal in Charge

Port Hood Waterfront Plan
2014 • Port Hood, NS • Principal in Charge

Charlottetown Harbour Plan
2013 • Charlottetown, PE • Principal in Charge

Bridgewater Waterfront & Downtown Plan
2012 • Bridgewater, NS • Principal in Charge

Charlottetown Waterfront Plan
2012 • Charlottetown, PE • Principal in Charge

Essex Waterfront Plan, Ont
2012 • Essex, ON • Principal in Charge

Summerside Harbour Plan
2012 • Summerside, PE • Principal in Charge

Charlottetown Queens Wharf Redevelopment
2012 • Charlottetown, PE • Principal in Charge

Lunenburg Waterfront Development (with Cantwell & Company)
2012 • Lunenburg, NS • Principal in Charge

Port Williams Waterfront Plan
2010 • Port Williams, NS • Principal in Charge

Bedford Waterfront Plan Phase II
2010 • Bedford, NS • Principal in Charge

Birch Cove Waterfront Plan
2010 • Halifax, NS • Principal in Charge

Queens Landing Waterfront Development
2010 • Halifax, NS • Principal in Charge

Saint John Coast Guard Site Redevelopment
2010 • St. John, NB • Principal in Charge

Wrights Cove Master Plan
2010 • Halifax, NS • Principal in Charge

Grand Étang Waterfront Plan
2009 • Grand Étang, NS • Principal in Charge

Port Morien Town Square
2009 • Port Morien, NS • Principal in Charge

Pugwash Waterfront Plan
2008 • Pugwash, NS • Principal in Charge

Historic Properties Redevelopment
2008 • Halifax, NS • Principal in Charge

Honours and publications

Awards—professional

Atlantic Provinces Association of Landscape Architects Award of Excellence

2020 • Argyle & Grafton Shared Streetscape

Lieutenant Governor's Award of Excellence in Architecture

2017 • Batoche National Historic Site • Medal of Excellence

Atlantic Planners Institute (API/IU) Award

2017 • Fort Needham Master Plan

2016 • Summerside Urban Core Plan

2013 • Bridgewater Downtown & Waterfront Plan

Canadian Institute of Planners (CIP) Awards for Planning Excellence

2015 • Cogswell Transformed • National Award of Excellence

Canadian Society of Landscape Architects (CSLA/AAPC)

2018 • Taking Back the Riverbank: Pijiniuskaq Park & King Street, Downtown Bridgewater

American Society of Landscape Architects (ASLA)

2006 • New York Times Tower microclimate study

Author

Leblanc, Rob and Brown, R. "Designing Invisible Landscapes." *Landscapes–Paysages* 18.4 (2017). Print.

Leblanc, Rob. "Immersive 3D: The Gaming World and the Real World Converges." *Landscapes–Paysages* (2017).

Leblanc, Rob. "You Can Take it With You." *Landscapes–Paysages*, (2016). Print.

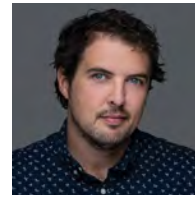
Professional service

Downtown Halifax Design Review Committee • 2015–present • Vice Chair

Landscape Paysage Magazine • 2015–present • Editorial Board

Licensed Professional Planners Association of Nova Scotia (LPPANS) • 2014–present • Board member

Atlantic Provinces Assoc. of Landscape Architects (APALA) • 2000–2006 • past-president



A veteran in the field of architecture, Chris has worked on a number of high profile assignments—from large scale, mixed use projects with budgets in excess of \$180 million, right down to the award-winning design of a 1000 square foot retail space.

Chris' diverse experience has given him the necessary skills to manage large projects, while staying focused on small scale details. This approach offers clients the advantage of a broader and more informed design viewpoint.

One recent project stands out as an excellent example of his abilities. Chris was project architect on the LEED gold Dominion building. Chris managed all aspects of this project from design and construction documentation, through to construction administration and field review.

Chris enjoys being a part of a design firm that has landscape architecture, planning, and interior design in house as it provides an invaluable knowledge base for each respective discipline to draw from.

Certifications Nova Scotia Association of Architects (NSAA) ▪ 2010–present ▪ professional seal ▪ Nova Scotia | Architects' Association of New Brunswick (AANB) ▪ 2017–present ▪ professional seal ▪ New Brunswick | Architects' Association of Prince Edward Island (AAPEI) ▪ 2017–present ▪ professional seal ▪ Prince Edward Island | Newfoundland and Labrador Association of Architects (NLAA) ▪ 2017–present ▪ professional seal ▪ Newfoundland and Labrador | Canada Green Building Council (CGBC) ▪ 2010–present ▪ LEED AP Certified

Work experience

Years active: 15+

Master in Architecture

2006 ▪ Dalhousie University

Bachelor in Environmental Design Studies

2004 ▪ Dalhousie University

Bachelor of Science, Major in Psychology, candidate

2002 ▪ Saint Mary's University

Memberships and professional affiliations

Nova Scotia Association of Architects (NSAA) ▪ 2010–present ▪ member and registered architect

Canadian Green Building Council (CaGBC) ▪ 2010–present ▪ member

Fathom history (2014–present)

Culture and heritage

Under One Sky Friendship Centre Schematic Design

2021 ▪ Fredericton, NB ▪ principal in charge

Jordantown-Acaciaville-Conway Betterment Association Centre of Excellence conceptual design study

2020 ▪ Jordantown, NS ▪ project architect

Kouchibouguac National Park Pijeboogwek

2019 ▪ Kouchibouguac, NB ▪ principal in charge

Kouchibouguac National Park Building E

2019 ▪ Kouchibouguac, NB ▪ principal in charge

Kouchibouguac National Park South Entrance Kiosk

2019 ▪ Kouchibouguac, NB ▪ principal in charge

Mi'kmaw Native Friendship Centre conceptual design study

2017–2018 ▪ Halifax, NS ▪ principal in charge, project architect

Kejimikujik National Park and National Historic Site visitor orientation centre

2017 ▪ Kejimikujik, NS ▪ principal in charge

Kejimikujik National Park and National Historic Site staff building addition

2016 ▪ Kejimikujik, NS ▪ principal in charge

Cape Breton Highlands National Park mobile visitor information kiosk

2016 ▪ Cape Breton Highlands National Park, NS ▪ principal in charge (architecture)

Prince Edward Island National Park, Cavendish Campground visitor orientation centre

2016 ▪ Prince Edward Island National Park, PE ▪ principal in charge

Terra Nova National Park entrance rehabilitation

2016 ▪ Terra Nova National Park, NL ▪ project architect

Marystown Heritage Museum & Jerome Walsh Site visitor experience pavilion

2016 ▪ Marystown, NL ▪ project architect

Batoche National Historic Site interpretive program

2015 ▪ Batoche, SK ▪ project architect

Residential, commercial, and industrial

Mi'kmaw Native Friendship Centre Diamond Bailey House

Ongoing ▪ Halifax, NS ▪ principal in charge, project architect

Dickie-Hames Residence,

Ongoing ▪ New Glasgow, NS ▪ principal in charge, project architect

Municipal Group Office Exit Stair Renovation

Ongoing ▪ Bedford, NS ▪ principal in charge

Dexel Developments' Dennis Building

Ongoing ▪ Halifax, NS ▪ principal in charge

Wyse Rd DA Application

2019 ▪ Dartmouth, NS ▪ principal in charge

Municipal Group Office Renovation

2019 ▪ Bedford, NS ▪ principal in charge

Municipal Group Superintendent Addition

2019 ▪ Bedford, NS ▪ principal in charge

Kings Wharf Building E schematic design

2018 ▪ Dartmouth, NS ▪ principal in charge

Dexel Developments' Spring Garden West mixed-use development

2016 ▪ Halifax, NS ▪ principal in charge

Dexel Developments' Flynn Flats mixed-use development

2016 ▪ Halifax, NS ▪ principal in charge, design architect

Dexel Developments' 30 story mixed use Spring Garden Road tower Development Agreement

2015 ▪ Halifax, NS ▪ principal in charge, project architect

Canso Causeway swing bridge operators tower

2015 ▪ Canso, NS ▪ principal in charge, project architect

Dexel Developments' Pepperell Street residential development Development Agreement

2015 ▪ Halifax, NS ▪ principal in charge, design architect

Interior design

South Shore Public Libraries, Lunenburg Branch
Relocation
2016–2017 • Lunenburg, NS • principal in charge

Delmore Buddy Daye Learning institute
2017 • Halifax, NS • principal in charge

Mezza Scotia Square restaurant
2014 • Halifax, NS • project architect

Mezza Sackville restaurant
2015 • Halifax, NS • project architect

Wayfinding and signage

Red Bay Basque Whaling Station UNESCO World
Heritage Site brand and wayfinding
2015–2016 • Red Bay, NL • design strategy and
signage

Interpretive Planning

Gander International Airport International
Departures Lounge Exhibit
2019–Present • Gander, NL • Principal-in-charge

Batoche National Historic Site interpretive
program
2015 • Batoche, SK • project team

Previous experience

Breakhouse (2011–14) Halifax, NS | Project architect

Shaw Communications Retail
2014 • Nine stores in Western Canada • project
architect

Kredl's Corner Market
2013 • Halifax, NS • construction
documentation and code review

Kelsey's restaurant major renovation and
re-brand
2013 • Toronto, ON • project architect

Topsail Apartments
2013 • St. Johns, NL • project architect

Local Public House
2012 • Bridgewater, NS • project architect

The Auction House
2014 • Halifax, NS • project architect

Halifax Seaport Farmers Market renovations
2014 • Halifax, NS • project designer

BMO Center major renovation
2013 • Halifax, NS • project architect

Edna restaurant
2013 • Halifax, NS • architectural review,
technical drawings

The Grainery Lofts Interior Design
2014 • Halifax, NS • architect

Lydon Lynch Architects (2006–11) Halifax, NS | Intern architect

1592 Barrington Office Building
2011 • Halifax, NS • design

Halifax Seaport Farmers Market
2010 • Halifax, NS • design through to
construction documentation

Lunenburg County Life Style Center
2011 • Bridgewater, NS • architect

Wright and Burnside 60,000 sq. ft. LEED Gold
office building—architecture and
interior design

2010 • Dartmouth, NS • project architect

Waterside Centre, LEED gold office building
2010 • Halifax, NS • project designer

WDCL WDC–1 Development study
Dartmouth site
2010 • Dartmouth, NS • project lead

WDCL Cunard block development study
2010 • Halifax, NS • project lead

Suters (2008–09) Brisbane, Australia | Intern architect

Personal Experience

Red Cap Office Interior renovation
2008 • Halifax, NS • project architect

Henderson Moore major Condo Renovation
2008 • Halifax, NS • project architect

Pictou Landing Health Centre
2006 • Pictou, NS • construction drawing,
construction supervision

Honours and publications

Awards—professional

AZ Awards (Azure Magazine)
2017 • Batoche National Historic Site •
Experiential Graphic Design: Finalist, and
People's Choice Award

Lieutenant Governor's Award of Excellence
in Architecture
2017 • Batoche National Historic Site • Medal
of Excellence

Mayor's Prize in Architecture
2019 • Institutional category • Delmore "Buddy"
Daye Learning Institute

SEGD Global Design Awards
2019 • Delmore "Buddy" Daye Learning Institute •
finalist
2017 • Batoche National Historic Site • Finalist

Retail Council Canada—Excellence in Retailing
2013 • Shaw Communications Retail • Award

Published work

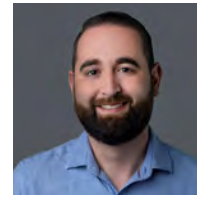
Jackson, K.. "A Corten-Clad Monument in the Prairies Reflects on Métis Life." Azure. Azure Magazine, 2017, January. Web. www.azuremagazine.com.

"Storyboard on the Landscape / Ekistics Planning & Design" ArchDaily. ArchDaily, 2017, February. Web. www.archdaily.com.

Heller, Kate. "Form:Media Creates Story on the Landscape in Batoche." SEG.D. Society of Experiential Graphic Designers, 2017, March. Web. <http://segd.org>

Markus, Elena. "Landschaftliche Szenografie: Batoche National Historic Site." Detail. Detail Blog, 2017, June. Web. www.detail.de.

Urquhart, Kristina "Architecture in the Elements." Applied Arts 2017, July: 38–43. Print.



Devin Segal is a senior landscape architect and the firm's landscape architecture discipline director. He specializes in the creation and enhancement of public open space including parks, waterfronts, streetscapes, educational campuses, and urban mixed-use developments.

He has an intense passion for detail and is highly dedicated to precision at all stages of a project, from master plans to site-specific installations. Always with a view towards implementation, his talent is in taking projects through from vision to full realization while carrying the conceptual thread through into details that are meaningful, beautiful, and buildable.

Devin is a skilled project manager and has led most of the firm's detailed design and landscape construction projects over the last eight years. In addition to managing budgets and coordinating design projects with multi-disciplinary consultant teams, he is also responsible for administering construction contracts and performing quality control site inspections. His in-depth knowledge of construction materials and assemblies comes from five years of hands-on experience as a landscape contractor and builder.

He is also actively involved in many of the company's municipal and community projects; building consensus by engaging stakeholders, and facilitating meaningful public meetings and workshops.

Devin is currently serving as President of the Atlantic Provinces Association of Landscape Architects where he works to raise the standard of practice and promote the Landscape Architecture profession.

Certifications Ontario Association of Landscape Architects (OALA) • 2016–present • seal and certificate • Ontario | Association of Landscape Architects (APALA) • 2016–present • seal and certificate • Atlantic Provinces

Work experience

Years active: 15+

Master of Landscape Architecture

2012 • University of Manitoba

Bachelor of Environmental Design

2009 • University of Manitoba

Memberships and professional affiliations

Canadian Society of Landscape Architects (CSLA) • 2016–present • Full Member

Ontario Association of Landscape Architects (OALA) • 2016–present • Full Member

Atlantic Provinces Assoc. of Landscape Architects (APALA) • 2016–present • Full Member

Fathom history (2012–present)

Culture and institutions

Dalhousie Digital Agriculture Research Centre
Ongoing • Truro, NS • landscape project manager

Under One Sky Friendship Centre Schematic Design
2021 • Fredericton, NB • landscape project manager

Jordantown-Acaciaville-Conway Betterment Association Centre of Excellence conceptual design study
2020 • Jordantown, NS • landscape project manager

NSCC Sydney Waterfront Campus
2019–ongoing • Sydney, NS • landscape project manager

St. FX University Xaverian Commons and Ceremonial Flag Plaza
2018–2021 • Antigonish, NS • project manager, lead designer

St. FX University Campus Plan
2018–19 • Antigonish, NS • project manager, lead designer

Dalhousie Sexton Campus Active Green Corridor
2018 • Halifax, NS • senior landscape architect

Parks and recreation

Labrador West Parks and Trails Master Plan
2019–ongoing • Labrador City and Wabush, Newfoundland • landscape project manager

Butterreau a Pepin Trail and Lookoff
2019–ongoing • Cape Breton Highlands National Park, NS • project manager

Peace and Friendship Park Redevelopment
2015–19 • Halifax, NS • project manager, lead designer, construction inspector

Terra Nova National Park Entrance Rehabilitation
2016–17 • Terra Nova National Park, NL • project designer

Cavendish Campground Entrance and Visitor Centre
2016–17 • Cavendish, PE • project designer

Downtown Bridgewater–Pijiniuskaq Park and King Street Redevelopment
2014–16 • Bridgewater, NS • project manager, lead designer, construction inspector

Batoche National Historic Site Storyboard on the Landscape outdoor interpretive program
2015–16 • Batoche, SK • lead designer (landscape)

Dingle Park Playground
2016 • Halifax, NS • project manager, lead designer, construction coordinator (design-build)

River Ridge Common Park and Trails
2016 • New Germany, NS • project manager and lead designer

Fort Anne Historic Site, Parks Canada
2016 • Annapolis Royal, NS • project manager
and lead designer

Erindale Estates Neighbourhood Park
2013–16 • Eastern Passage, NS • project
manager, lead designer

Streetscapes and public spaces

**Province House Heritage District Streetscape
Plan**
2020–21 • Charlottetown, PE • project manager

Yarmouth Main Street Streetscape Phase II
2020–2021 • Yarmouth, NS • project manager

Digby Water Street Redevelopment
2019–2020 • Digby, NS • project manager

Fort Needham Memorial Park Redevelopment
2014–15 • Halifax, NS • designer, construction
inspector

Queen's Marque Waterfront Plaza
2015–ongoing • Halifax, NS • project manager,
lead designer, construction inspector —
landscape

Spring Garden Road Enhancements
2018–19 • Halifax, NS • project manager

Dalhousie Active Green Corridor
2018 • Halifax, NS • senior designer

**Fort Needham Memorial Park Redevelopment
Master Plan**
2014–15 • Halifax, NS • project manager and
lead designer

Argyle and Grafton Shared Streetscapes
2015–17 • Halifax, NS • project manager,
lead designer, construction inspector

**Yarmouth Main Street Streetscape Phase I
Redevelopment**
2014–17 • Yarmouth, NS • project manager, lead
designer, construction inspector

North Sydney Downtown Orientation Plaza
2015 • North Sydney, NS • project manager and
lead designer—landscape

Residential, commercial and mixed-use

Stewart McKelvey Head Office Roof Terraces
2019–ongoing • Halifax, NS • project manager,
lead designer

King's Wharf Building E
2017–ongoing • Dartmouth, NS • project
manager and lead designer—landscape

Municipal Group Superintendents Building
2019 • Bedford, NS • landscape project manager,
lead designer

The Maple (Multi-Unit Residential Tower)
2013–16 • Halifax, NS • landscape project
manager, lead designer, construction inspector

Eon Square Business Campus
2015–16 • Bedford, NS • project manager and
lead designer

BlueFrog Business Campus
2014 • Dartmouth, NS • project manager,
lead designer, construction inspector

Master planning

Millbrook Shannon Park Master Plan
2018 • Halifax, NS • landscape architect

Summerside Urban Core Plan
2016 • Summerside, PE • landscape architect

Cogswell Interchange Lands Plan
2013–14 • Halifax, NS • lead designer

**Sydney Harbourfront Conceptual Vision
and Design**
2013–14 • Sydney, NS • designer

Victoria Park Comprehensive Plan
2013 • Charlottetown, PE • lead designer

Upton Farm Park Master Plan
2013 • Charlottetown, PE • designer

Bridgewater Waterfront & Downtown Plan
2012–13 • Bridgewater, NS • designer

Charlottetown Waterfront Master Plan
2012–13 • Charlottetown, PE • designer

Honours and publications

Awards—professional

**Atlantic Provinces Association of Landscape
Architects Award of Excellence**
2020 • Argyle & Grafton Shared Streetscape

**Atlantic Provinces Association of Landscape
Architects Award of Excellence**
2019 • Fort Needham Memorial Park

**International Downtown Association Downtown
Achievement Awards**
2018 • Argyle & Grafton Shared Streetscapes •
Pinnacle Award

Applied Arts Community Awards
2018 • Design • Fort Needham Memorial Park

**Canadian Society of Landscape Architects
National Award of Excellence**
2018 • Taking Back the Riverbank: Pijiniuskaq
Park & King Street, Downtown Bridgewater

**Atlantic Planners Institute (API/IU) Award of
Planning Excellence**
2019 • Dalhousie Bicentennial Common &
Formal Quad Master Plan • Public Outreach &
Communication
2018 • Argyle & Grafton Shared Streetscapes •
Physical Plans/Design

2017 • Fort Needham Park Master Plan •
Physical Plans/Design

2016 • Summerside Core Area Plan • Physical
Plans/Design

2015 • Cogswell Transformed • Physical Plans
& Design

2013 • Bridgewater Downtown & Waterfront
Master Plan • Physical Plans & Design

**Canadian Institute of Planners (CIP) Awards for
Planning Excellence**
2015 • Cogswell Transformed • National Award
of Excellence

Halifax Urban Design Awards
2018 • Fort Needham Memorial Park • Award of
Excellence

Streetsblog USA People's Choice Award
2017 • Argyle & Grafton Shared Streetscapes •
Best Urban Street Transformation

**Lieutenant Governor's Award of Excellence in
Architecture**
2017 • Batoche National Historic Site • Medal of
Excellence

AZ Awards (Azure Magazine)
2017 • Batoche National Historic Site •
Experiential Graphic Design: Finalist, and
People's Choice Award

SEGD Global Design Awards
2018 • Fort Needham Memorial Park • Finalist
2017 • Fort Needham Memorial Park • Finalist
2017 • Batoche National Historic Site • Finalist

Professional service

Atlantic Provinces Association of Landscape Architects • 2021–ongoing • Board of Directors - Executive Committee - President

Canadian Society of Landscape Architects • 2020 • National Awards of Excellence Jury

Atlantic Provinces Association of Landscape Architects • 2019–2021 • Board of Directors - Executive Committee - President Elect

Atlantic Provinces Association of Landscape Architects • 2017–ongoing • Communications Committee

Downtown Dartmouth Business Commission • 2014–2018 • Board of Directors



Over his dedicated career with Fathom, Civil Engineering Technologist Derek Hart has been instrumental in preparing working drawings, maps, base plans, illustrative plans, and cost estimates for most of the firm's projects over the last two decades. Derek now leads the Civil 3D implementation at Fathom coordinating BIM with our architecture divisions using some of the most advanced software and hardware technologies available to land planning and landscape architecture. As a Civil Engineering Technologist, Derek oversees the office CAD standards and is our in-house expert on federal and provincial CAD standards ensuring our government projects are coordinated to the highest standards for government use.

While at Fathom, Derek has handled everything from construction drawings to construction administration. Recently, he also took on the additional role of Manager of Operations for both companies, overseeing our most recent office expansion in 2015.

Derek runs all things technical in our office and is the go to person for all staff as it relates to office standards. He also heads up our security standards.

Work experience

Years active: 20+

Diploma in Civil Engineering Technology

1999 • University College of Cape Breton, NS

Fathom history (1999–present)

Interpretive Planning, graphic design and 3D modeling

Lantz Site Development
2018 • Lantz, NS • 3D Model

55 Hudson Yard Microclimate Study
2018 • New York, USA • 3D Modeling

Robie Street South Development
2018 • Halifax, NS • Shadow Study

Cole Harbour Parks & Trails Kiosk Map Updates
2017 • Dartmouth, NS • Signage Mapping

Pepperell Wind and Solar Study
2017 • Halifax, NS • 3D Modeling

1190 Barrington Street Wind Study
2017 • Halifax, NS • 3D Modeling

15 Hudson Yards Microclimate Study
2016 • New York, USA • 3D Modeling

Emera Oval Wind Study
2016 • Halifax, NS • 3D Modeling

Solar Carve Building
2016 • New York, USA • 3D Modeling

Cole Harbour Parks & Trails Brochure Updates
2014 • Dartmouth, NS • Brochure Mapping

Shubenacadie Canal Mapping
2014 • Dartmouth, NS • Signage Mapping

WDCL Water Lot Plan
2013 • Halifax, NS • Signage Mapping

Avonhurst Gate Shade Study
2012 • Dartmouth, NS • 3D Modeling

Planning and urban design

Province House Heritage District Streetscape Plan
2020-21 • Charlottetown, PE • Illustrative plan

Aspotogan Ridge Golf Club Master Plan Updates
2019 • Hubbards, NS • Illustrative Plan

Springhill Geothermal Business Park
2019 • Springhill, NS • Illustrative Plan

Ravenridge Court Development
2019 • Dartmouth, NS • Illustrative Plan

Fairfield Court Development
2019 • Windsor, NS • Illustrative Plan

West Hills Golf Development
2019 • Fredericton, NB • Illustrative Plan

Cornwall Development Kevin Connors
2019 • Cornwall, PEI • Illustrative Plan

Wolfville Skate Park Relocation
2019 • Wolfville, NS • Illustrative Plan

Lovett Lake Site Development
2018 • Beechville, NS • Master Plan

Cordova Phase 1 Site Development
2018 • Moncton, NB • Illustrative Plan

Inverness Beach Village
2018 • Inverness, NS • Conceptual Lot Plan

First Nations Commercial Development
2018 • Annapolis Valley, NS • Illustrative Plan

East Hants Fields
2018 • East Hants, NS • Site Base Plans

The Suites at Mt. Edward
2018 • Charlottetown, PEI • Illustrative Plan

Fort View Golf Course
2018 • Annapolis, NS • Illustrative Plan

Exhibition Park Development
2018 • Prospect, NS • Illustrative Plan

The Woodlands
2018 • Charlottetown, PEI • Illustrative Plan

Bedford Common
2017 • Bedford, NS • Site Master Plan

Liscombe Lodge
2017 • Liscomb, NS • Site Layout Plan

Wolfville West End Lands
2017 • Wolfville, NS • Site Master Plan

Ken Wo Golf and Country Club
2016 • New Minas, NS • Site Master Plan

Granite Springs Bayside Village
2016 • Bayside, NS • Site Layout and Master Plan

Stonehaven Development
2016 • Halifax, NS • Site Layout and Master Plan

Salmon River Village Development
2016 • Dartmouth, NS • Site Layout Plan

Southwest Owned Property Plans
2016 • Halifax, NS • Property Inventory Plan

Reeves Street Cost Estimate
2016 • Port Hawkesbury, NS • Site Base Plan

Bedford Sub Area 6
2016 • Bedford, NS • Site Layout Plan

2300 Gottingen Street
2016 • Halifax, NS • Site Layout Plan

Aerotech Base Plan
2016 • Halifax, NS • Site Plan

1333-1353 Barrington Street Development
2016 • Halifax, NS • Servicing Schematic

1363 Hollis St./5134-5146 Bishop St. Development
2016 • Halifax, NS • Servicing Schematic

Landscape architecture and site planning

Town of Wolfville Drafting Services
2019 • Wolfville, NS • Working Drawings

Penhorn Lake West Trail
2018 • Dartmouth, NS • Working Drawings

Breaker Point Subdivision
2018 • Lawrencetown, NS • working Drawings

Kemano T2 Completion Project
2018 • Kemano, BC • Working Drawings

Liverpool Property
2017 • Liverpool, NS • Layout and Grading Plan

Port Hawkesbury Vocational School and Street Work
2017 • Port Hawkesbury, NS • Site Layout Plan

3834 Robie Street Rezoning
2017 • Halifax, NS • Building and Site Layout Plan

Reeves Street Improvements
2017 • Port Hawkesbury, NS • Site Layout Plan

WDCL Waterfront Place
2016 • Halifax, NS • Working Drawings

Concorde Way Apartments
2016 • Enfield, NS • Working Drawings

95 Chipstone Close Apartments
2016 • Clayton Park West, NS • Site Layout Plan

Canso Causeway Stormwater Management System
2016 • Port Hastings, NS • Working Drawings

15 Brenda Drive Residence
2016 • Hammonds Plains, NS • Building/Site Plan

Pepperell Street at Robie Street Development
2016 • Halifax, NS • Servicing Schematic

Spring Garden Road at Carlton Street Development
2016 • Halifax, NS • Servicing Schematic

Food Business Venture Park
2016 • Truro, NS • Site Master Plan

Inverness Tourism Signage and Sites
2016 • Inverness County, NS • Site Base Plans

Queen Street Property
2016 • Dartmouth, NS • Site Base Plan

Shannon Park Concept Plan
2016 • Dartmouth, NS • Site Master Plan

South Park Street Development
2016 • Halifax, NS • Servicing Schematic

Sherwood Golf Community
2015 • Lunenburg County, NS • Working Drawings

Granite Springs Golf Club Development
2015 • Bayside, NS • Site Master Plan

Kingswood Resort Village
2015 • Fredericton, NB • Working Drawings

Argyle & Grafton Shared Streetscapes
2016 • Halifax, NS • Working Drawings

Bridgewater Phase 1 Detail Design Project
2016 • Bridgewater, NS • Working Drawings

Fort Anne Historic Site, Parks Canada
2016 • Annapolis Royal, NS • Working Drawings

Terra Nova Gateways
2016 • Terra Nova National Park, NL • Working Drawings

Yarmouth Streetscape
2016 • Yarmouth, NS • Working Drawings

8 Walker Avenue
2015 • Sackville, NS • Working Drawings

East Uniake Quarry
2015 • East Uniacke, NS • Working Drawings

Goose Bay Town Centre
2015 • Goose Bay, NL • Working Drawings

North Aspy River Bridge
2015 • North Aspy, NS • Working Drawings

Northwest River Bridge
2015 • Northwest River, NS • Working Drawings

Penhorn Lake Area Greenway Development Plan
2015 • Dartmouth, NS • Site Layout Plans

Saint Antonio Church
2015 • Halifax, NS • Working Drawings

Canso Causeway Detour Road
2015 • Canso, NS • Working Drawings

90 Alderney Drive Parking
2015 • Dartmouth, NS • Site Plan

Dartmouth Cove Transportation Analysis
2015 • Dartmouth, NS • Site Base Plan

Mainland Common Development Schematic Design
2015 • Mainland Common, NS • Site Plan

Queen's Marque ROW Design and Planning
2015 • Halifax, NS • Site Layout Plans

College Park Subdivision
2015 • Windsor, NS • Site Base Plan

WDCL Waterfront Mapping Services
2013 • Halifax, NS • Site Base Plans

Grand Day Course Mapping
2013 • Dartmouth, NS • Site Base Plan

Canoe to the Sea Mapping
2012 • Dartmouth, NS • Site Base Plans

Kingsville Active Transportation Plan
2012 • Kingsville, NS • Site Base Plans

Queens County ATV Trail Study
2011 • Queens County, NS • Site Base Plans

Cambria Fredericton Hotel
2014 • Fredericton, NB • Working Drawings

First Lake Trail
2014 • Sackville, NS • Working Drawings

Walker Road Subdivision
2014 • Sackville, NS • Working Drawings

Rockingham South Development
2014 • Halifax, NS • Working Drawings

Walker Service Road
2013 • Lower Sackville, NS • Working Drawings

Avonhurst Development
2013 • Dartmouth, NS • Working Drawings

Boscobel Road Development
2013 • Halifax, NS • Working Drawings

McCain Residence
2013 • Hacketts Cove, NS • Working Drawings

Dieppe Kite Park Master Plan
2012 • Dieppe, NB • Working Drawings

Foran Residence
2011 • Oakland, NS • Working Drawings

Truro French School
2011 • Truro, NS • Working Drawings

Shubenacadie Canal Interpretive Park
2011 • Dartmouth, NS • Working Drawings

Kingstec NSCC
2011 • Kentville, NS • Working Drawings

Mount Royal Subdivision
2010 • Halifax, NS • Working Drawings



Roger Boychuk, P. Eng. is a Senior Transportation and Municipal Engineer with Fathom Studio and has over two decades of progressive consulting experience in transportation and traffic engineering, municipal engineering, asset management, planning and design, construction and field inspection services. Prior to Fathom, he has served in General Management and Department Management (Transportation and Municipal Engineering) roles and has held a variety of different roles as a Project manager, Portfolio Manager, and as a Senior technical Engineer and team leader.

As a registered professional engineer based in the Province of Nova Scotia, he has successfully completed projects throughout Canada and internationally in the United States, Mexico, South America and Africa. He is an active personal and professional leadership development practitioner and has significant public speaking and presentation experience, including being involved in or leading a long list of public consultations, workshops and presentations.

Certifications Association of Professional Engineers of Nova Scotia (APENS) • 2009–present • certificate • Nova Scotia | Masters Certificate in Project Management • 2007 • St. Mary's University, NS

Work experience

Years active: 20+

Bachelor of Science in Engineering (Civil)

1995 • University of Manitoba, MB

Memberships and professional affiliations

Association of Professional Engineers of Nova Scotia (APENS) • 2009 • Member

Member of the Institute of Transportation Engineers • 2005 • Member

Fathom history (2014–present)

Engineering

Stay Healthy Main Street. One-Way Street Pilot Project Design and Safety Review
2020 • Wolfville, NS • transportation engineer

Dundas Street and PAPA Intersections
2020 • Halifax Regional Municipality, NS • Intersection, AT, and traffic signal design

Spring Garden Road AT and Transit Corridor Concept Development and Schematic Design
2019 • Halifax, NS • transportation engineer

South Park Development and Off-Street Bike Lanes Detailed Design
2019 • Halifax, NS • transportation engineer

Richmond Street Development Site Design and Watercourse / AT Trail Relocation
Ongoing • Dartmouth, NS • transportation engineer

Argyle and Grafton Shared Street Design and construction
2018 • Halifax, NS • transportation engineer

Downtown Sydney Urban Core Plan
2017 • Sydney, NS • transportation engineer

Rocky Lake Lands Transportation Investigation
2017 • Bedford, NS • transportation engineer

Argyle Shared Street Detailed Design
2017 • Halifax, NS • transportation engineer

Quinpool Road Transportation Impact Statement
2017 • Halifax, NS • transportation engineer

Old Bridge Landing Construction Services
2016 • Bridgewater, NS

Kingswood Resort Village, Site Design
2015 • Fredericton, NB • transportation engineer

St. Antonio Church, Civic Commissioning
2015 • Halifax, NS • transportation engineer

Susies Lake Transportation Analysis
2015 • Halifax, NS • transportation engineer

Penhorn Lake Area Greenway Development Plan
2015 • Halifax, NS • transportation engineer

Dexel Spring Garden & Pepperell Developments, Municipal & Transportation Design
2015 • Halifax, NS • transportation engineer

North Aspy Bridge Replacement
2015 • Cape Breton, NS • transportation engineer

Traffic Management Plans for Bridge Rehabilitations for Various Locations
2015 • Cape Breton, NS • transportation engineer

Dartmouth Cove Transportation Study
2015 • Dartmouth, NS • transportation engineer

Reeves Street Complete Street
2015 • Port Hawkesbury, NS • transportation engineer

Sherwood Golf Course Subdivision Design
2015 • Chester, NS • transportation engineer

Main Street Yarmouth Redevelopment
2014 • Yarmouth, NS • transportation engineer

South Park Transportation & Municipal Engineering
2014 • Halifax, NS • transportation engineer

Old Bridge Landing Park and King St Redevelopment
2014 • Bridgewater, NS • transportation engineer

May Street Development
2014 • NS • transportation engineer

Avonhurst Development
2014 • NS • transportation engineer

Concord Way Development
2014 • NS • transportation engineer

Previous experience

SNC-LAVALIN INC (2005–2014) | manager, civil/transportation engineering, general manager

Various Non-Destructive Testing, Asset Management and Environmental Projects
Various Locations

Cogswell Interchange Lands Plan, Halifax Regional Municipality
Halifax, NS (2013)

Development of Motherhouse Lands–Traffic Impact Study, Southwest Properties
Halifax, NS (2013)

Modal Split Cordon Counts
HRM, Nova Scotia (2007–2014)

Conversion of Armdale Rotary to a Modern Roundabout,
Halifax, NS

Legion Road Traffic Impact Study
Conception Bay, Newfoundland (2011)

Town of Yarmouth Active Transportation Plan
Yarmouth, NS (2011)

Town of Kingsville: Active Transportation Plan
Kingsville, ON

Downtown Amherst Action Strategy
Amherst, NS

Highway 102, Exit 9, Trunk 14 Interchange
NSTIR–NS

Highway 104 Beechhill Road Interchange
NSTIR–Antigonish, NS

Design of McCutcheon Road Upgrade Ranges and Training Area
CFB Gagetown–Oromocto, NB

Prior to SNC–LAVALIN (2000–2005)

Bedford West Master Plan Traffic Study
HRM, NS

BURNAC Commercial Development Traffic Impact Study, AtlanPlan
Sydney, NS

Sobeys Store Traffic Impact Study,
Coldbrook, NS

Fredericton Mall Expansion Traffic Impact Study
Fredericton, NB

Glendale Lands Church and Commercial Development Traffic Impact Study
Sackville, NS

Bridgewater Shopping Centre Expansion Traffic Impact Study, Crombie Properties Ltd
Bridgewater, NS

Halifax Bridge Capacity Study, Halifax Regional Municipality and Halifax Dartmouth Bridge Commission
HRM, NS

Burnside Connector Study
HRM, NS

Update, Recalibration and Alternatives Analysis of the HRM Regional QRSII Transportation Planning Model
HRM, NS

Highfield Square Site Alternatives and Parking Review, Crombie Properties Ltd.
Moncton, NB

Chain of Lakes Trails Association (COLTA) Connectivity and Functional Alignment
HRM, NS (2010–2012)

Kings Wharf Site Development, WM Fares Inc
Dartmouth, NS (2009–2014)

Halifax Peninsula Traffic Model
Halifax, NS (2009)

Municipality Utility Services Upgrade for the Medium Heavy Lift Helicopter Hangar Program, CFB Petawawa
Petawawa, Ontario

Traffic Projections and Lane Requirements BeaverBank West Interchange and Highway 104 Antigonish Interchanges
NSTIR–NS

Chebucto Road Reversing Lane Project
Halifax, NS (2006)

Traffic Study–Route 60, Conception Bay South
Town of Conception Bay South, NL(2008)

Park and Ride Facilities
Halifax Regional Municipality, NS

Fredericton Mall Vehicle and Pedestrian Circulation and Parking Review
Fredericton, NB

Park Lane Lay–By, Traffic and Pedestrian Operational Review
HRM, NS

Glen Arbour Subdivision Traffic Signal Analysis
HRM, NS

Granville Street Road Safety Audit and Operational Review
Summerside, PE

Niagara Street Safety Audit, City of Welland
Welland, ON

Winnipeg Perimeter Highway Road Safety Review
Winnipeg, MB

PR 206 & PR 207 Road Safety Audit , Manitoba Transportation & Government Services
MB

PTH 11 & PR 304 Road Safety Audit, Manitoba Transportation & Government Services
MB

2003 Road Safety Audit Program of 15 locations, Town of Pelham
Pelham, ON

Rail Crossing Safety Assessment, Merivale Rd.
Ottawa, ON

Winnipeg Safer City Intersection Improvement Pilot Study, City of Winnipeg
Winnipeg, MB

Mount Uniacke Public Transit Feasibility Study
East Hants, NS

Lunenburg Public Transportation Feasibility Study
Lunenburg, NS

Allan Street Neighbourhood Shortcutting Study
Halifax, NS

Expert Witness Testimony and Lead Transportation Engineer for a Can–Euro Site development planning appeal
Dartmouth, NS (2005)

Sobeys Atlantic and ECL Properties Ltd.
Project manager and lead traffic engineer for various traffic impact studies in the Atlantic provinces

Emergency Access and Parking Review, South Shore Regional Hospital
Bridgewater, NS

Traffic Impact and Master Planning Studies,
Various Clients and Locations

Intersection Safety Audit Program
Ottawa, ON

Research and development of curriculum for Safety Conscious Design for Vulnerable Road Users course learning guide and workshops
Transportation Association of Canada (TAC): (2004/2005)

Curriculum Development (assisted) for TAC Urban Geometric Design Workshops
(TAC:2004)

Curriculum Development (assisted) for TAC Geometric Design Guide 4–day workshops
(TAC: 2001/2002)

Organization, Supervision, Execution and Analysis of Various Traffic Engineering Field Studies

Airport Access Traffic Study for the Pearson International Airport Upgrading, GTAGA
Mississauga, Ontario

Portage Avenue Downtown Traffic Study
Winnipeg, MB

Highway 407 Safety Advisor Team, Research Engineer and Technical Analyst, SLF 407 Design Consortium
Toronto, ON

Curriculum Development (assisted) for TAC Geometric Design Guide Seminar Series
(TAC: 1999)

Honours and publications

Published work

Consulting Engineers of Nova Scotia ▪ 2009–2012 ▪ Director

Institute of Transportation Engineers ▪ 2005–present ▪ Traffic Engineering Council

Institute of Transportation Engineers ▪ 2005–present ▪ Transportation Safety Council

Institute of Transportation Engineers ▪ 2005–present ▪ Pedestrian/ Bicycle Council

PROJECT PROPOSAL



UPPER KING STREET EXTENSION DEVELOPMENT | 2022

RFP # TOL2022016

Prepared for:
Cali Beck
Acting Business Coordinator

Town of Lunenburg
119 Cumberland St
Lunenburg, NS B0J 2C0
purchasing@townoflunenburg.ca

Proposal Issued
6/30/2022

Proposal valid till:
10/28/2022

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01

COVER LETTER

Dear Ms. Beck:

zzap consulting inc. is pleased to submit our team's proposal for consulting services to undertake the development of four residential concept schemes for the Upper King Street Extension land in E'se'katik, the Town of Lunenburg.

The zzap team is ideally situated to deliver this project. Our combined understanding of the Nova Scotian development landscape, architectural expertise, and land use planning experience is unparalleled. Lead planner & project manager, Chris Markides, and Justine Bowles, our lead architect, have the creative expertise to identify the hidden opportunities in every site that enable community driven, innovative development solutions.

We differ from other firms in that we have "on the ground" experience implementing land use bylaw and built form guidelines through our client's projects. This experience has given us a keen understanding of what works, and what doesn't work, from a land use planning perspective. Additionally, our integrated approach to development has made us master navigators when it comes to merging land use planning requirements with building code requirements, and going even further, best practices in universal accessibility and cultural and heritage integration.

Our experience has led us to understand that each development leaves its own print on the cultural and historical landscape of a place. The lasting impact of large-scale development of this nature requires a unique and holistic vision that keeps our head in the clouds, but our feet firmly rooted on the ground, and we've structured our scope of work to reflect that approach. Frequent check-ins with the Town will help to support and expand upon our findings.

Building on our initial thoughts, we look forward to developing a deeper understanding of the built form and character of the Town of Lunenburg and incorporating our vast experience and novel approaches to development in our recommendations.

Thank you for the opportunity to submit this proposal, we are happy to discuss any aspect of its contents with you.

Sincerely,



Greg Zwicker MCIP, LPP
Principal and Senior Advisor

ABOUT US

Who is zzap?

Founded by Greg Zwicker and Joe Zareski, and joined by new partners Justine Bowles and Connor Wallace, the team at zzap comes with decades of experience in Architecture and Planning, a keen appreciation of relationships and strategy, and a laid-back creative vibe.

What do we do?

zzap is a design and consulting firm that brings design excellence to place-making. zzap specializes in an integrated planning and architecture approach to projects. Specializing in residential, commercial and mixed-use developments, zzap designs respond to clients' needs while improving community and environment. zzap is able to leverage our in-depth knowledge of the design and construction industry for our municipal clients.

What are we about?

We believe architecture and planning should be pals. Sure, they are separate disciplines. But like Lennon and McCartney, their best work is done hand in hand. Our uniquely collaborative approach puts planners, architects, clients, and regulators in a room together to create projects that fully realize their potential and enhance the communities they are a part of.

“Every place has potential, it's just a matter of unlocking it.”



OUR SERVICES

Why zzap?

Simply put, zzap's combination of Architects and Planners integrate seamlessly to identify opportunities and challenges at the early stages of municipal plan development and present future ready solutions.

By combining the architecture and planning disciplines from the outset of every project, we unlock the hidden potential of places. Whether it's a community-wide master plan, a mixed-used development or a residential project, we have the strategic perspective, in-depth industry knowledge and hands-on experience to create exceptional places, spaces, and communities.

Development Consulting

zzap has seen projects through every phase of the development process both through as-of-right and discretionary approval processes. Collaboration from step one is zzap's key to maximizing each site's potential. Drawing on our combined knowledge of built form regulations and building codes requirements, zzap can tap into the unique strengths of the site. Bringing clients and regulators into the same room from day one enables us to shape development around the best interests of the client, the municipality, and the community.

Heritage Planning

zzap has successfully led multiple projects integrating new growth within heritage contexts, including conservation districts and streetscapes. This experience, combined with our collaborative expertise in architecture and planning, allows us to combine functionality with preservation to foster growth and enhance the historical character of places.

Architectural Analysis

zzap's architectural team has proven skills and experience in analyzing the architectural character of places, identifying trends and character defining elements and implementing functional growth solutions. Our architects collaborate with our planners to create spaces that foster community while promoting responsible growth.

Accessibility Consulting

zzap has significant expertise in accessibility auditing and providing recommendations based on audit data. Project lead, Chris Markides, has years of experience offering up his accessible design expertise for large scale infrastructure projects like the Cogswell Interchange redevelopment and Spring Garden Road redesign in Halifax, as well as building site-specific accessibility interventions.

Policy and Regulation Creation

As an integrated design firm, zzap approaches policy and regulation creation through a lens that fosters a combination of preservation, growth and functionality. Our team knows how to fine tune regulations that are flexible enough to promote growth and creativity, and strict enough to ensure that character is maintained or enhanced.

Public Engagement and Consultation

zzap recognizes that obtaining comprehensive and widespread community/public feedback can be challenging in both urban and rural contexts. We pride ourselves in bringing unique public engagement methods, like community-based mapping and tactical engagement, that cater to specific community needs, availability, and functions.

ABOUT DESIGNPOINT

Who is DesignPoint?

DesignPoint is an engineering and surveying firm established in 2014 by experienced engineers and surveyors. DesignPoint is located in Bedford, Nova Scotia with over 60 staff and specializes in municipal infrastructure and development projects, structural engineering, geotechnical engineering, transportation engineering, and topographical, legal, and specialized surveys.

Why DesignPoint?

DesignPoint's expertise and quality of work, together with the value they place on fostering positive relationships with their clients, combines to create successful projects completed to the satisfaction of their clients. The DesignPoint team has a proven track record of working collaboratively and creating innovative solutions to improve the quality and cost of a final solution for our municipal clients.

Our Services:

- Municipal Infrastructure Master Planning;
- Feasibility Studies;
- Water Distribution System Engineering;
- Site Civil Design;
- Wastewater Engineering;
- On-Site Wastewater Treatment Design;
- Wastewater Lift Station Design;
- Stormwater Engineering;
- Servicing Review and Studies;
- Hydrologic & Hydraulic Modelling;
- Construction Support Services;
- Traffic & Transportation Engineering;
- Active Transportation Trail Design;
- Retaining Wall Design;
- Small and Large-Scale Watercourse Crossing Design;
- Structural Engineering;
- Geotechnical Engineering
- Legal Boundary Surveys; and
- Topographical Surveys.

PROJECT TEAM

Good planning comes from talent, but teamwork and expertise get projects done on time and budget.

We've assembled a crack team at zzap, combining architectural, planning, and project management expertise all under one roof.



PROJECT TEAM



Chris Markides MCIP, LPP PLANNER, PROJECT MANAGER

As a Licensed Professional Planner & Project Manager, Chris brings a wealth of knowledge and expertise gained through his professional experience, including a comprehensive understanding of municipal and provincial planning frameworks. Time spent with municipal documents has significantly increased his understanding of municipal regulatory frameworks in relation to client and community goals, giving him an innate ability to identify trends, opportunities and standards that can be successfully implemented.

Chris has been the lead on numerous feasibility studies, giving him a unique understanding of how to shape development around local policy and by-laws.

Additionally, Chris' background in the Rick Hansen Accessibility Standards means that he is intimately familiar with cutting edge design standards for universal accessibility.

Chris will be serving as the Project Manager for zzap as well as the Lead Planner.



Justine Bowles NSAA, NLAA, MRAIC PRINCIPAL, PROJECT ARCHITECT

Justine strongly believes that good design communication is key to project success. Her expertise and innovative ideas have been honed through her 8+ years of experience and involvement in a wide range of work including residential, commercial, and restoration. Justine's primary focus is integrating new construction with existing heritage neighbourhoods. She has demonstrated experience in design for both new buildings and adaptive-reuse and continues to gain experience in this sector.

Born and raised in Nova Scotia, Justine is passionate about creating built spaces to contribute to the unique fabric of Atlantic Canada's towns and cities.

PROJECT TEAM



Greg Zwicker MCIP, LPP
SENIOR ADVISOR

As a founding Principal at zzap, Greg manages and delivers community-based projects ranging in scale from single lot developments to full community master plans. He brings over 20 years' of experience working with municipal planning documents across Nova Scotia, and has a history of building relationships, and developing plans and strategies with communities across the Atlantic Provinces. This expertise will add value to the project. Acting as a Senior Advisor to the team, considering everything from provincial statutes, planning framework best practices, and community history.



Ken Watters
SENIOR PLANNING TECHNICIAN

Ken grew up and has worked in the Halifax area for over 30 years with knowledge and experience on projects across the Maritime Provinces and Canada. Ken brings to the table a keen understanding of site planning for residential, commercial, and industrial sites and consistently delivers feasible, clear site plans out of sketches and ideas. Ken will utilize his vast experience and skills to understanding the site and bringing zzap's development schemes to life on the page.

PROJECT TEAM



Neil Fougere P. Eng
SENIOR CIVIL ENGINEER

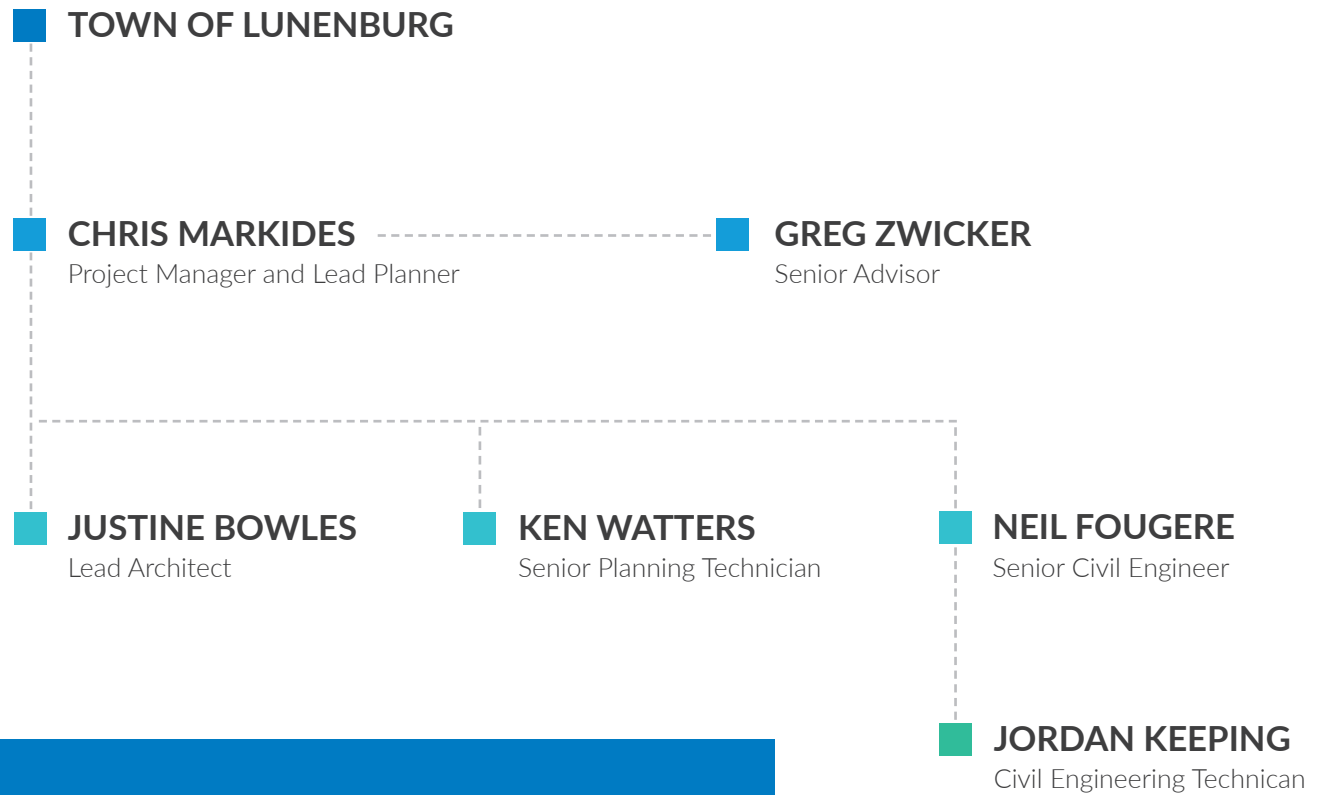
Neil will serve as the Senior Civil Engineer for this project. He has 16 years of experience in municipal engineering and has been involved in the design of numerous infrastructure projects throughout the Atlantic Provinces and across Canada. His area of expertise includes municipal design, storm drainage design, commercial/institutional site design, and serviced/un-serviced subdivision design. Neil will be the project engineer for the servicing design and cost estimate preparation for the civil component of the project.



Jordan Keeping
CIVIL ENGINEERING TECHNICIAN

Jordan Keeping has been building experience in civil and municipal design and construction since graduating from Nova Scotia Community College in May 2015 and has experience with construction inspection and testing pressure pipes. Jordan will be responsible for the preparation of the conceptual servicing schematics and compilation of the background information. He will also support Neil with the preparation of the cost estimates.

ORGANIZATIONAL CHART



02

PROJECT DESCRIPTION

Bring a holistic approach to developing an Upper King Street Extension site “vision” and provide development schemes that align with the Town’s Comprehensive Community Plan, Municipal Planning Strategy, Land Use By-law and Subdivision By-law.

The Town of Lunenburg is seeking consulting expertise to design four development options that create a clear path forward for the Upper King Street Extension site (composed of four parcels, PID's 60057387, 60057279, 60057395 and 60579687) and enable new development rooted in community interests and needs.

Our understanding is that the final deliverable for this project is four separate development design schemes that ensure the provision of affordable and accessible units that balance the rich heritage of the Lunenburg area with the Town’s desire to grow and develop. Additionally, a preliminary site servicing schematic and draft restrictive covenant will be prepared for each scheme.

Keeping this end goal in mind, we understand the methodology to achieve this goal as follows:

1. Collaborate with town staff and draw on existing planning documents to define a unique community “vision” to shape the development of the site;
2. Develop a package of site planning maps and materials that lay out four options for the site, two under the existing medium-density residential zoning and two contemplating a rezoning to high-density residential; and
3. Provide a completed package of materials that can be presented to the community for public feedback and ultimately passed on to the future developer of the site.



PROPOSED METHODOLOGY

We are proposing a three phased approach to completing this scope of work. This phased approach allows us to provide both consistent check-ins with the client team, and deliverables that will serve as progress updates on the project. The following pages outline our proposed scope of work.

Phase Zero
ONGOING COMMUNICATION

0

Phase One
PROJECT KICK-OFF

1

Phase Two
NARROWING IN

2

Phase Three
FINISHING TOUCHES

3

Phase Zero

ONGOING COMMUNICATION

0

0.1 Ongoing Project Management

Producing four high-quality development schemes that meet the Town of Lunenburg's financial expectations and schedule requires experienced communication skills so that each team member has a common expectation of the project outcome.

Throughout the planning process, zzap's Project Manager Chris Markides will be in regular contact with the Municipality to keep them informed of the project effort and to seek their input at key decision points. This will include regular project coordination calls, e-mails, and written documents. Monthly invoices and progress reports will highlight work completed to-date and see that the Municipality is aware of the status of the budget.

After each meeting, zzap will produce detailed meeting summaries covering the discussion items and will include a list of follow-up tasks. zzap will provide interim materials, agendas, meeting notes, and other announcements for the town to post on the project's website.

zzap's Project Manager Chris Markides will assign staff, and review technical work. Key submittals and interim work products defined in our project approach will go through a structured series of reviews. zzap's quality assurance process includes mandatory review of all products, good decision making about when and who to engage for review, and scheduling the time required for review in advance of the product due date. The zzap Project Manager will submit deliverables to the Town and will take the lead on revising documents in response to feedback.

Phase One

PROJECT KICK-OFF

1

1.1 Kick-Off Meeting

Members of the zzap team will attend a virtual kick-off meeting with Town of Lunenburg officials. The intent of the kick-off meeting is to introduce key members of the zzap team, establish lines of communication, and set the stage for subsequent phases of the proposed scope. The agenda will include:

- A summary of the scope and schedule
- Identification of the Municipalities' existing and available data and resources that are pertinent to the scope of the project
- A vision and goals exercise to inform the ongoing project effort
- Clarification of contract details

After this meeting, zzap will produce a detailed summary covering the discussion items and including a list of follow-up tasks.

1.2 Background Review

zzap's vast experience completing development studies in municipalities across Nova Scotia have familiarized our team with quickly and thoroughly digging through planning documents. This will expedite the background review component and provide a greater depth of understanding of how policy, and other contexts, form and shape development. The following documents and materials will be reviewed and summarized to understand their impact on the future development on the site:

- Town of Lunenburg Comprehensive Community Plan
- Town of Lunenburg Municipal Planning Strategy
- Town of Lunenburg Land Use Bylaw
- Municipal Climate Change Action Plan
- Project Lunenburg's Discussion Papers and What We Heard Reports, with particular attention to:
 - Housing
 - Transportation
 - Built Heritage and Streetscapes
- Lunenburg County Accessibility Plan
- Historic Town of Lunenburg Outstanding Universal Values
- Current and active development applications in the Town of Lunenburg, to be compiled and provided by Town of Lunenburg staff
- Any available data or analysis completed to date as part of the Housing Needs Assessment prepared by the Province of Nova Scotia, provided by the Town of Lunenburg

Phase One

PROJECT KICK-OFF

1

We will also reach out to the South Shore Open Doors organization to form a better understanding of the key issues regarding affordability in the region. Understanding what unique local factors may play a role in affordability in the region will aid our team identifying opportunities for impactful solutions to incorporate in the development schemes.

1.3 Site Visit

This project is about more than designing space, it is also about designing community. This requires understanding the lived reality of the land on which that community will live, work, and play. Three project team members and representatives from the Town will spend a day investigating the site and the larger local context. The intent of this visit will be to identify:

- The larger neighbourhood context, including the scale and form of existing buildings
- Opportunities and constraints present on the site
- Servicing conditions
- Connectivity to existing active transportation routes, including the Bay to Bay Trail
- Preliminary visions of the site from zzap and team staff

Time will also be dedicated to talking with available community members, and connecting the goals and vision expressed by the Town during the Kick-Off Meeting to the physical contexts of the site. A brief sketching activity will also be done on-site to generate preliminary scheme options that are done collaboratively between zzap and Town team members.

1.4 Initial Visioning Report

The information gathered through the kick-off meeting, background review, and site visit will be wrapped up into an initial Visioning Report. This report will focus on drawing together Town and community goals, background information, and the experience of the existing space into a community vision. This report will include:

- A vision statement for the future of the site
- Goal statements regarding various aspects of the development to guide future decision making in a holistic manner
- An opportunities and constraints summary encompassing both policy and physical factors

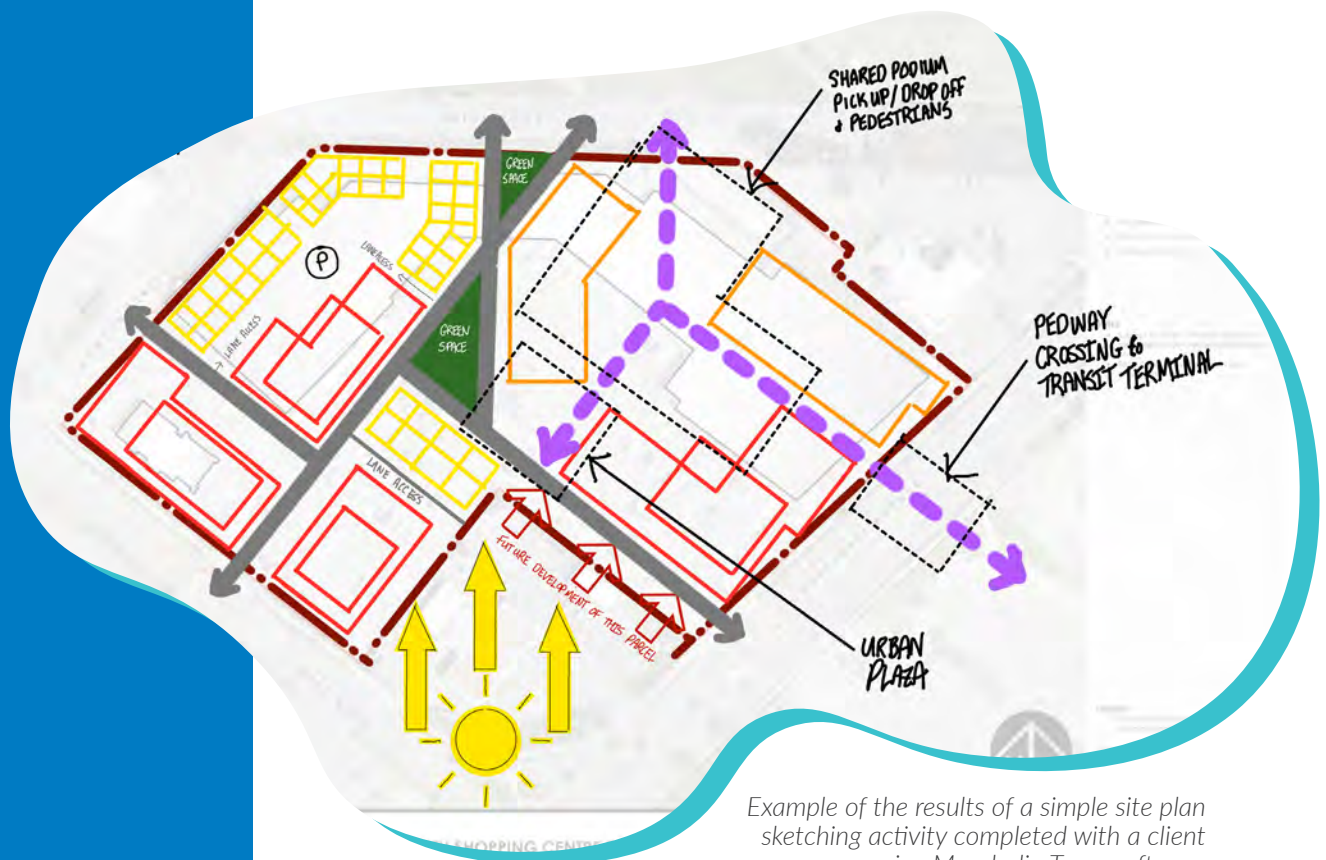
Phase One

PROJECT KICK-OFF

1

- A reference sheet outlining bylaw requirements for the site under both zoning conditions (Medium-density residential and high-density residential)
- Initial sketched development schemes created on site in collaboration with Town staff

The Town will be provided the report and given the opportunity to review it and provide feedback to better shape future project decisions. One round of revisions will be completed. Additional changes will be charged at an hourly rate.



Example of the results of a simple site plan sketching activity completed with a client using Morpholio Trace software

Phase Two

NARROWING IN

2

2.1 Site Planning

First, four refined site plans will be created using the initial sketched drawings, the bylaw reference sheet, and feedback from the Town. These site plans will indicate:

- Concept subdivision layouts
- Building footprints
- Approximate unit counts, including the estimated number of accessible and affordable units provided
- Barrier-free and age friendly open space configuration and preliminary infrastructure
- Transportation routes

These site plans will be created utilizing existing Lidar and provincial data. Finalized site survey and topographic analysis will be required for finalized development and is outside the scope of this proposal.

These site plans will be developed as a collaboration between our planning and architecture teams to align with the previously established vision and goals, while meeting zoning requirements and building code regulations. This supports our goal that the plans go beyond an ideal dream for the site but can also be seamlessly translated into a buildable reality.

2.2 Massing Studies

Completed site plans will be translated into massing models using a 3D modelling software. These 3D models will communicate a sense of height and scale, and bringing our architectural expertise on-board will enable us to go one step further. Our team will utilize these massing models to demonstrate the basic architectural intent of the development schemes in a way that responds to the cultural and heritage values reflected throughout the town's history, from Mi'kmaw habitation to European settlement.

2.3 Servicing and Streetscape Analysis

Simultaneously, the DesignPoint team will utilize the refined site plans along with town information and their own extensive experience working within the Town of Lunenburg on servicing projects to complete four servicing schematics appropriate to the site and Town capacity, working under the assumption the site will be serviced with municipal water, sanitary and storm services.

Phase Two

NARROWING IN

2

As part of this task, the team will compile record information for the existing services, property mapping, Lidar etc. Designpoint will also conduct a preliminary grading review to determine the feasibility of each development scenario. Site services (water, sanitary, and storm) will be designed in accordance with Town of Lunenburg requirements.

Finally, a street cross-section will be created to highlight the essential nature of the streetscape to the overall development design. This cross-section will be designed to exceed current Municipal minimum streetscape requirements by incorporating barrier-free and age friendly principles and consider both Section 8.1 of Lunenburg's Comprehensive Community Plan regarding streetscape design and Rick Hansen certification standards.

2.4 Initial Materials Package

A package will be put together containing the following materials and presented to the Town for feedback:

- 4 site plans
- 4 massing models
- 4 servicing schematics
- 1 street cross-section

One round of revisions is included in this scope of work to the materials to incorporate Town feedback. Additional revisions will be charged at an hourly rate.

Phase Three

FINISHING TOUCHES

3

3.1 Conceptual Renderings

Understanding that the four development schemes will ultimately be presented to the community for feedback, zzap will provide accessible and engaging visual materials to support staff's presentation to community. The Town will be given the opportunity to select two preferred development schemes from the four provided and zzap will prepare a conceptual architectural rendering for each. Renderings for additional schemes may be provided for an additional fee. The Town will be provided the opportunity to review these renderings, and one round of revisions will be completed. Additional revisions will be charged at an hourly rate.

3.2 Costing

DesignPoint will provide preliminary site development cost estimates for each scheme. Building cost estimates will be provided on a per square foot basis, based on the 2022 Altus Cost Guides.

3.3 Draft Restrictive Covenants

The zzap team will prepare a draft restrictive covenant to ensure that the eventual development of the property occurs in-line with the development scheme selected by the Town and community. Our experience indicates that a restrictive covenant is the most suitable tool because it provides the strictest protection of community interests, enables a wide variety of requirements for future development, and can control both the initial construction and the long-term operation and maintenance of the property. In developing this restrictive covenant, we will consider the inclusion of:

- Consistency with the chosen development scheme
- A tool to allow some variation to the chosen development scheme to respond to further site analysis, changes in community need, or other conditions subject to approval by the Town
- The provision of the required 10% affordable units in the long-term
- The inclusion of additional accessible units beyond what the building code mandates
- Efficiency targets for development
- The protection of specific natural or cultural assets identified during analysis (including view lines)
- Requirements for the future protection of archaeological artifacts identified on the site

Phase Three

FINISHING TOUCHES

3

- The development and maintenance of streetscapes in general accordance with the street cross-section provided

3.4 Final Schematic Reports

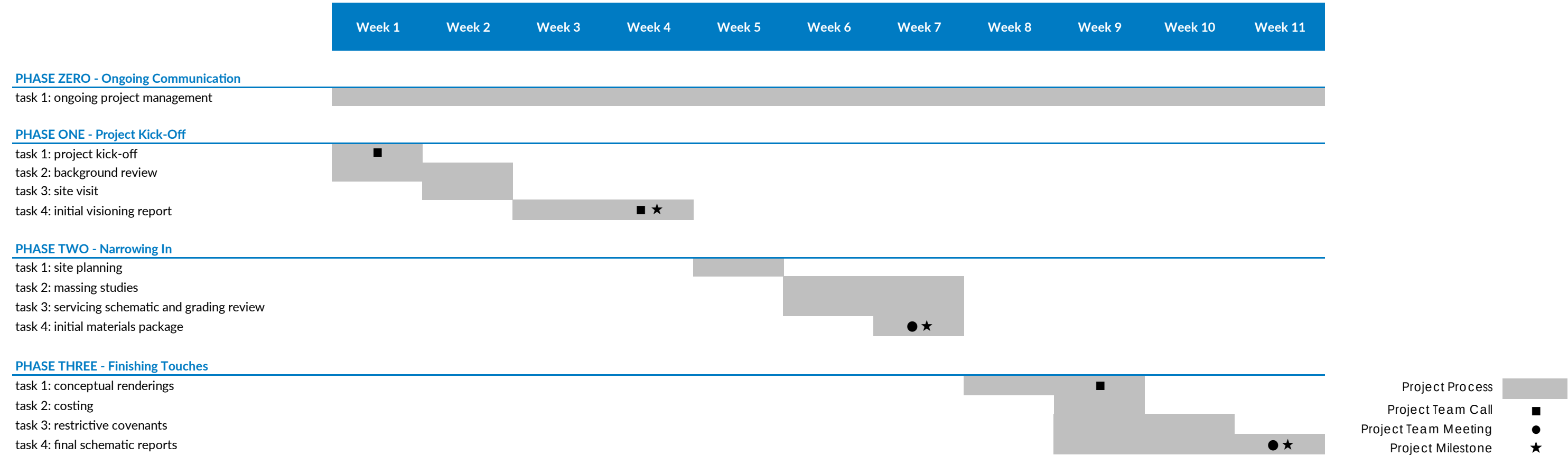
The finalized materials will be drawn together into four completed schematic design reports. To support the Town in moving forward with obtaining public feedback on these schemes, the resulting reports will emphasize the use of plain language and clear graphics to communicate each scheme in a package fully accessible to a public audience. Each report will be structured as follows:

- Executive summary – one page concisely outlining the proposed scheme and identifying the approximate number of overall units, accessible units, and affordable units as well as the estimated cost of the scheme.
- Background – a summary of the initial research completed during Phase One.
- Vision – an outline of the vision and goals identified in the initial visioning report, along with preliminary sketched development schemes.
- Proposed development scheme – a primarily graphic section showing the site plan, massing studies, servicing schematic, and if applicable, rendering. This section will also provide a more detailed breakdown of approximate unit counts.
- Cost Estimates – a detailed breakdown of the estimated cost of the development scheme.
- Draft Restrictive Covenant – a draft restrictive covenant corresponding to the development scheme.
- Recommendations – a brief outline of the benefits and potential constraints of each development scheme.

One round of revisions will be provided of the materials to incorporate Town feedback. Additional revisions will be charged at an hourly rate.

PROJECT TIMELINE

zzap's extensive experience in development planning will allow us to tackle this project quickly and efficiently. We understand that there is no current timeline, but are confident that we can deliver exceptional results in eleven weeks.



PROJECT BUDGET

			ZZap Consulting Inc					DesignPoint				
			TEAM MEMBER	Chris Markides	Greg Zwicker	Justine Bowles	Architecture Support	Ken Watters	Admin Support	Neil Fougere	Jordan Keeping	Expenses
			ROLE	Project Manager & Lead Planner	Senior Advisor	Lead Architect	Architectural Technologist	Senior Planning Technician	Report Formatting/ Meeting Prep	Senior Civil Engineer	Civil Engineering Technician	N/A
			HOURLY RATE	\$160	\$195	\$190	\$110	\$135	\$90	\$170	\$85	\$0
		BUDGET (ex. HST)	HOURS									
PHASE ZERO - Ongoing Communication		\$2,240	14									
task 1: ongoing project management		\$2,240	14	14								
PHASE ONE - Project Kick-Off		\$14,420	96									
task 1: kick-off meeting		\$880	6	2		2			2			
task 2: background review		\$4,720	32	16				16				
task 4: site visit		\$3,120	18	6		6				6		
task 5: initial visioning report		\$5,700	40	24	4				12			
PHASE TWO - Narrowing In		\$21,185	177									
task 1: site planning		\$4,590	32	6	2			24				
task 2: massing studies		\$5,040	40			8	32					
task 3: servicing and streetscape analysis		\$7,885	79	2						12	65	
task 4: initial materials package		\$3,670	26	16	2				8			
PHASE THREE - Finishing Touches		\$19,190	151									
task 1: conceptual renderings		\$9,430	77			12	65					
task 2: costing		\$2,040	20							4	16	
task 3: draft restrictive covenants		\$2,950	18	16	2							
task 4: final schematic reports		\$4,770	36	16	2	2			16			
TOTAL HOURS PER TEAM MEMBER				118	12	30	97	40	38	22	81	-
TOTAL BUDGET PER TEAM MEMBER				\$18,880	\$2,340	\$5,700	\$10,670	\$5,400	\$3,420	\$3,740	\$6,885	-

TOTAL HOURS
TOTAL BUDGET (excluding HST)
TOTAL BUDGET (including HST)

438
\$57,035
\$65,590

OPTIONAL SERVICES

renderings for additional schemes
\$8,000 per scheme

**Clayton Development Ltd.
Southdale - HRM**



PROJECT REFERENCES

Marchand Developments Young Street - Truro

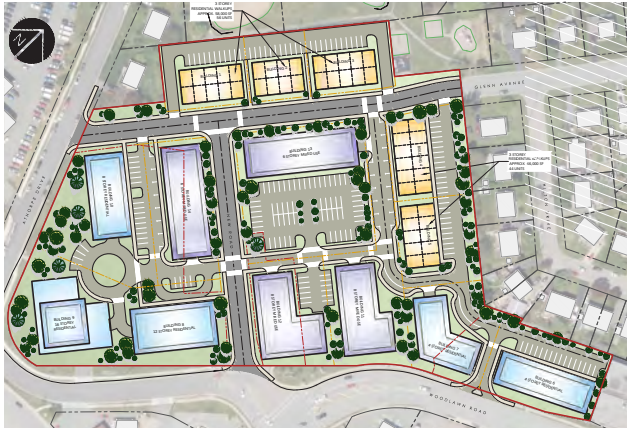
Client contact: Kevin Marchand, Director
Contact phone: 902 497 5050
Contact email: kevin@marchandhomes.ca

zzap prepared a conceptual plan and materials for a Development Agreement proposal for Marchand's lands along Young Street in Truro, NS. Tackling this project required much the same scope of work in terms of scale and complexity as this proposal requires. The site's proximity to a watercourse and wetland posed several topographical challenges. This is where zzap's extensive experience with development planning, design, and project coordination came into play, allowing us to help our clients achieve a viable and unique concept for the lands. The proposed development consists of three multi-unit buildings and four stacked townhouse blocks totalling 167 units.

After the concept was established, zzap assisted our client through the Development Agreement process with the Town of Truro. This process required extensive collaboration with the Town and the ability to listen and work with the community to enable real solutions to community feedback in our design. zzap's keen ability to balance the needs of each key stakeholder ultimately led to a successful Development Agreement process and unanimous approval of the project by Council.



PROJECT REFERENCES



Strathallen Investments Woodlawn Mall - HRM

Client contact: David Zareski, President, ZAPM Consulting
Contact phone: 902 478 4744
Contact email: dzareski@zapm.ca



On behalf of our client, ZAPM Consulting Inc., zzap prepared a conceptual master plan proposal for the property owner of Woodlawn Mall in Dartmouth, NS. The property owner, Strathallen, was seeking to understand how this underutilized shopping centre site could be repurposed through a phased development approach to revitalize the area and add a significant amount of housing supply in a key location with HRM adjacent to a proposed Bus Rapid Transit corridor. The site posed numerous access and phasing challenges as a number of tenants have differing expiring leases. The site also has a community park adjacent to it and our goal was to improve the connectivity between that park and the master planned community.

The zzap team's experience in development planning, design, phasing new development with existing assets and project coordination helped the property owner achieve a viable long term vision for their lands. This vision is intended to be used to inform future decisions regarding the property and also for potential promotional material should they choose to sell the lands. The proposed development consists of mixed use multi-residential and commercial buildings and ground based stacked townhouse units. The total amount of units proposed is approximately 800, plus an additional 60,000 square feet of commercial space.

ADDITIONAL PROJECTS



Client: Strathallen Investments

zzap was tasked with creating a vision and conceptual design for the redevelopment of a portion of the Truro Mall to embody a complete community. The end product was a mix of housing types totalling 180 units that have easy access to services and amenities.



Client: Marchand Developments

zzap was engaged by Marchand Development to create a master plan for their lands in Bridgewater, NS. Planning the development on the challenging topography of the site was resolved through detailed site analysis completed by the zzap team. This approximately 900 unit development is phased for build out over the next 20 years.



Client: Cresco Developments

zzap has been brought on board to create a redevelopment plan that would create a new mixed-use community on a large lot currently containing a strip mall and parking lot. zzap is working closely with the client and existing commercial tenants to create a new complete community that takes advantage of the site's central location and proximity to services.

ADDITIONAL PROJECTS



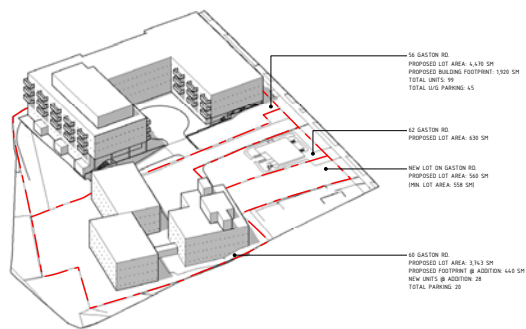
Client: North American Development Group

The zzap team assisted our client in creating a plan for integrating residential development into their existing land holdings primary consisting of commercial uses. In this project, zzap was able to integrate complete community principles into an existing car oriented development to allow that community to grow sustainably in the future.



Client: Cresco Developments

zzap prepared development concepts for the redevelopment of a large swath of former military housing in the Regional Centre of Halifax, NS. The development scheme for approximately 3000 units contemplated how the area would be serviced by utilities, public transit, and active transportation.



Client: Accord Canadian Realty

zzap conducted a feasibility analysis to analyze how to maximize the site's potential while respecting the surrounding contexts. The finalized development scheme contained 127 units in a mixture of building types.



UPPER KING STREET EXTENSION DEVELOPMENT

RFP #TOL2022016

CONTACT US



1 Canal St
Dartmouth, NS B2Y 2W1



Telephone : 902 266-2408



E-mail: chris@zzap.ca



www.zzap.ca

APPENDIX A

Application Form

3.0 PROPOSAL FORM

NAME OF PROPONENT: zzap consulting inc.

Do not include HST in the Amount of Proposal. All of the below pricing is to be in Canadian Dollars.

Amount of Proposal	\$ <u>57,035.00</u>
HST.....	\$ <u>8,555.25</u>
Total.....	\$ <u>65,590.25</u>

Please attach the following additional information:

- Start and end time required to complete the work.
- Two relevant work references and contact phone numbers.

Mailing Address 1 Canal Street
Dartmouth, NS B2Y 2W1

Phone Number 902 266 2408

Email Address chris@zzap.ca

Signature 

Print Name & Title Greg Zwicker

Date June 30, 2022

Witness *Chris Markides*

Date June 30, 2022

Details of Proposal – please attach your submission details as required in this RFP.

APPENDIX B

Team Resumes



architecture + planning
1 Canal St, Dartmouth NS B2Y 2W1
www.zzap.ca

Chris Markides MCIP, LPP Urban Planner

As a planner, Chris Markides brings a wealth of knowledge and expertise gained through his post-secondary and professional experience, including a comprehensive understanding of municipal and provincial planning frameworks. Time spent within the documents has significantly increased his understanding of municipal regulatory frameworks in relation to client and community goals, giving him an innate ability to identify trends, opportunities and standards that can be successfully implemented.

Chris excels at providing Municipal Staff, Committees and Councils with informative materials and presentations that are easy to understand and interpret. Chris also has significant experience in delivering community and stakeholder engagement plans. Through project experience, he has developed valuable facilitation skills that have enabled him to build trust and deliver meaningful and informative engagement. He is passionate about interacting and building consensus through a collaborative approach that involves all stakeholders, resulting in projects embraced by the communities they serve.

Additionally, Chris has training as a Rick Hansen Accessibility Professional. This means that Chris is intimately familiar with universal design best practices and can test design ideas and infrastructure proposals against these best practices.

CAREER

2019-current	Urban Planner - zzap Consulting Inc.
2018-2019	Operations Manager – Spring Garden Area Business Association
2017-2018	Planner – Upland Planning & Design
2013-2015	Transportation Analyst – Charlotte Watson Consulting

SELECTED PROJECT EXPERIENCE

DEVELOPMENT PLANNING

210/214 WILLETT STREET, HALIFAX, NS (2019-2021)

Project Planner responsible for managing a plan amendment and Development Agreement (DA) application for the construction of a commercial / residential mixed-use development located in the Clayton Park, Halifax. The proposed development intends to provide a range of housing types and forms ranging from walk-up townhouse units to multi-unit apartment complexes. Duties included planning due diligence, concept plan development, submitting planning application, presenting at a Public Information Meeting, attending committee and Council meetings, and negotiating terms of the DA with the local Planning Department. Client: Hazelview Investments

1029 SOUTH PARK HERITAGE ADAPTIVE REUSE AND DEVELOPMENT AGREEMENT, HALIFAX, NS (2020-PRESENT)

Project Planner responsible for coordinating a Development Agreement (DA) application for the adaptive re-use and development of a 17-unit residential apartment building on South Park Street in Downtown Halifax. The design intent was to seamlessly integrate the new building with surrounding historic buildings, including the existing registered heritage property, through appropriate massing and building materials. Duties included planning due diligence, concept plan development, submitting planning application, attending public meetings, and negotiating terms of the approval with the local Planning Department. Client: North Point Properties



architecture + planning
1 Canal St, Dartmouth NS B2Y 2W1
www.zap.ca

THE WAVERLY INN, HALIFAX, NS (2018-PRESENT)

Currently in the Planning approval process, this contemporary addition to a well-known historic landmark on Barrington Street in Halifax will preserve the inn for the next 100 years. The scope of the project will restore the original c. 1865 Italianate dwelling to its original splendor and provide new hospitality suites in a 100-room contemporary addition.

TRURO MALL REDEVELOPMENT, TRURO, NS (2020)

Project Planner for development approval for a mixed-use community adjacent to the existing Truro Mall. The design intent was to create a new neighbourhood (183 units) to support the commercial and retail uses in the existing mall. This was the first mall redevelopment of its kind in Nova Scotia.

COMMUNITY MASTER PLANNING

WICKWIRE STATION, EAST HANTS, NS (2019-2020)

Project Planner responsible for facilitating community consultations, concept plan development, and coordinating planning approval processes for a 500-acre property within East Hants Urban Core. Client: Armco Developments

COGSWELL DISTRICT REDESIGN (2019-2020)

Project Planner for the design process for demolition and removal of 1960's highway interchange and redevelopment of full urban community. Integrated Rick Hansen Accessibility Criteria into the master plan to meet the client's goal of meeting Rick Hansen Gold Standard accessibility. Client: Halifax Regional Municipality

PARKS PLANNING

MARSH CREEK MASTER PLAN, SAINT JOHN, NB (2018)

Project Planner for the development of a master plan and detailed site design for Marsh Creek Park. At the request of the client, the plan incorporated elements of passive recreation and emphasized active transportation linkages with the rest of Saint John.

ROOSEVELT CAMPOBELLO INTERNATIONAL PARK REVITALIZATION PLAN (2017-2018)

Project Planner for Upland Planning and Design on the design process of the revitalization of the natural area of the Roosevelt Campobello International Park. The objective of this project was to improve the existing trail network and design a new cycling trail facility around the island.

WAYFINDING PLANNING

WAYFINDING STRATEGY, SPECIAL OLYMPICS, VANCOUVER, BC (2013-2014)

Transportation Analyst responsible for developing a wayfinding strategy for the 2014 Special Olympics. Created clear directional signage, event signage designs, and wayfinding maps that were easily understood by all ages and abilities to ensure easy transition between events and to/from accommodations for events and spectators. Client: Special Olympics Canada

COMMUNITY ENGAGEMENT

SPRING GARDEN ROAD STREETSCAPING ENGAGEMENT, HALIFAX, NS (2018)



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Project Planner responsible for facilitating community consultations, developing an online engagement platform and survey questions, and engaging and liaising with businesses affected by the project. Through consultation with the public and stakeholders, worked with the integrated design team to develop concepts for a pedestrian focused streetscape. Client: Halifax Regional Municipality.

HALIFAX COMMON MASTER PLAN, HALIFAX, NS (2017-2018)

Project Planner responsible for facilitating community consultations, concept plan development, and policy drafting for a 225-acre public open space in the heart of Downtown Halifax. Through consultation with the public and stakeholders, worked with the integrated design team to develop concepts for a redesign of a regional park. Client: Halifax Regional Municipality.

TOWN OF BRIDGEWATER ACTIVE TRANSPORTATION PLAN (2019-2020)

Project Planner responsible for facilitating community consultations, concept plan development, and policy drafting for the Town of Bridgewater. Through consultation with the public and stakeholders, and a rigorous and immersive engagement strategy Chris worked with the integrated design team to develop concepts for the redesign and development of Bridgewater's Active Transportation network. Client: Halifax Regional Municipality.

YEARS OF PROFESSIONAL EXPERIENCE

8+

EDUCATION AND PROFESSIONAL MEMBERSHIPS

Master of Planning, Dalhousie University, Halifax, NS	2018
Bachelor of Arts, Geography, specialization in Sustainability, University of British Columbia, Vancouver, BC	2014
Full Member, Canadian Institute of Planners (MCIP)	2020
Licensed Professional Planners Association of Nova Scotia (LPP)	2020



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Greg Zwicker, MCIP, LPP, Principal

As the Principal Planner at ZZap, Greg sets the vision, objectives, schedules and budgets for the ZZap team, and manages and delivers community-based projects ranging in scale from single lot developments to full community masterplans and Municipal Policy documents. Greg is a Senior Planner with 22 years' experience working with municipal and provincial planning documents, and has a history of building relationships and developing plans and strategies with communities across the Maritimes. He believes a community's well-being rests at the intersection of the four pillars of sustainability: Culture, Environment, Social and Economy, and he introduces this lens whenever possible.

Greg has managed the Public Engagement and Approvals for several major development projects in HRM. Recently, he was engaged by the Canada Lands Company to develop and deliver a public Engagement Program for the Shannon Park Lands. This program utilized many forms of engagement, from 1 on 1 discussions through to community workshops. The result of this work is a concept that the community is excited about and looking forward to. On top of the engagement experience, Greg's background as a Land Use Planner and his understanding of the Policy and Regulations in Halifax allow him to present to a wide variety of groups as well as create viable development plans.

CAREER

2018-present	Principal and owner of ZZap Consulting Inc.
2014-2018	Director - Planning, Landscape Architecture and Urban Design, WSP
2014	Manager - Planning, WSP
2010-2013	Manager - Planning, GENIVAR (now WSP)
2000-2010	Manager - Planning, Terrain Group Inc.
1998-2000	Junior Planner - Terrain Group Inc.

PROJECT EXPERIENCE

MAIN STREET MASTERPLANS

COGSWELL INTERCHANGE REDEVELOPMENT, HALIFAX, NS (2019)

Project Manager and Senior Planner leading the design process for demolition and removal of 1960's highway interchange and redevelopment of full urban community. Client: Halifax Regional Municipality

SPRING GARDEN ROAD STREETSCAPE DESIGN, HALIFAX, NS (2009)

Community Consultation Lead and Design Team Member. Through consultation with the public and stakeholders, worked with the integrated design team to develop concepts for a pedestrian focused streetscape. Client: Halifax Regional Municipality

QUINPOOL ROAD STREETSCAPE DESIGN, HALIFAX, NS (2009)

Community Consultation Lead and Design Team Member. Through consultation with the business community, worked with the integrated design team to develop concepts for a multi-use travel way (vehicles, bikes, pedestrians). Client: Halifax Regional Municipality



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URBAN DESIGN STUDY, BATHURST, NB (2008)

Project Manager for the development of concepts for a proposed mixed-use development in the heart of downtown Bathurst. This design focused on the relationship of the central courtyard and surrounding mixed-use development and the revitalization of Main Street. Client: City of Bathurst

COMMUNITY PLANNING

PORT MASTERPLAN, HALIFAX, NS (2017)

Senior Planner leading research, design and community stakeholder consultation for development of new berth, rail extension and Off Dock Intermodal Yard. Client: Halifax Port Authority

SHANNON PARK MASTER PLAN, HALIFAX, NS (2015)

Project Manager and Senior Planner for Masterplan of a complete urban community. Client: Canada Lands Company

FOREST LAKES COUNTRY CLUB, WEST HANTS, NS (2014)

Project Planner responsible for preparing neighborhood design and approvals for future mixed-use community of 10,000 residents. Design incorporates sustainability initiatives, energy modelling and water re-use strategies. Client: Terra Firma

PORT WALLACE MASTER PLAN, HALIFAX, NS (2014)

Project Manager responsible for Master planning future mixed use community of 663 acres. Client: Port Wallace Developments

URBAN REDEVELOPMENT

MIDTOWN NORTH MIXED-USE DEVELOPMENT, DEVELOPMENT AGREEMENT, HALIFAX, NS (2016)

Development of 4.98-acre site to accommodate a mixed-use development. The site is comprised of 300 residential apartment units of varying sizes in different buildings ranging from 8 to 21 storeys. Additional amenities include town homes, commercial space, pedestrian plaza, day care with green roof. This project is currently in the development agreement phase. Client: Westwood Developments

BENS BAKERY SITE REDEVELOPMENT, DEVELOPMENT AGREEMENT, HALIFAX, NS (2015)

Project Planner leading the redevelopment of former bakery site in Halifax. The site features mixed-use retail and residential components comprised of a retirement home, town houses, condominium and apartment buildings. The design is currently under design review. Client: Westwood Developments

THE STACKHOUSE, HALIFAX, NS (2013)

Project Planner for a 32 Unit, 8 storey, residential project with a variety of rental units of differing sizes. The lower two floors are expressed in streetscape type configuration and sit on two levels of underground parking. Client: FH Construction

SUSTAINABILITY PLANNING

CLIMATE CHANGE TOOLS FOR SENIOR MUNICIPAL MANAGERS, NS (2014)

Project Manager that led the team of Planners to undertake interviews with Managers across all HRM divisions to better understand the tools available and how they are "Planning for Climate Change". Client: Halifax Regional Municipality



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MUNICIPAL CLIMATE CHANGE ACTION PLAN, GUYSBOROUGH, NS (2014)

Project Manager working closely with Climate Change Committee to develop adaptation and mitigation techniques to address potential impacts of Climate Change. Client: Municipality of Guysborough

MUNICIPAL CLIMATE CHANGE ACTION PLAN, CLARE, NS (2013)

Project Planner working on behalf of the Municipality to prepare a plan addressing the impacts of Climate Change on the community of Clare. Client: Municipality of the District of Clare

MUNICIPAL CLIMATE CHANGE ACTION PLAN, BARRINGTON, NS (2013)

Project Manager responsible for project oversight and committee meetings in area heavily impacted by sea level rise and storm surge. Client: Municipality of Barrington

CLIMATE CHANGE RESEARCH, HALIFAX, NS (2013)

Project Manager for team of Urban Planners that visited and interviewed all HRM Fire Chiefs regarding the impacts of Climate Change on their facilities and ability to respond to emergency situations. Results used to direct funding to necessary upgrades to mitigate the impacts of climate change on Fire Services. Client: Halifax Regional Municipality

BIKES & TRAILS MASTER PLAN, SAINT JOHN, NB (2010)

Provided senior level oversight. Identified Active Transportation Corridor and trails network across the city. Developed standards and design criteria for several cross-sections. Client: City of Saint John

INTEGRATED COMMUNITY SUSTAINABILITY PLAN, CLARE, NS (2010)

Project Manager responsible for developing a new Integrated Community Sustainability Plan. Client: Municipality of the District of Clare

ACTIVE TRANSPORTATION PLAN, BRIDGEWATER, NS (2007)

Project Manager responsible for the development of an Active Transportation Plan for the Town. This work included stakeholder discussions, policy review, network assessment, site analysis, and policy recommendations. Client: Town of Bridgewater

CLIMATE CHANGE ADAPTATION RESEARCH, NB (2006)

Team Planner. Completed a thorough review of legislation at the Federal, Provincial and Municipal levels to identify opportunities to consider climate change in policy making decisions. Client: Natural Resources Canada

MUNICIPAL PLANNING

WATERSHED PROTECTION PLAN, CLARE, NS (2015-2017)

Project Planner developing Municipal Policy and Regulations to protect lakes at the top of local river systems. Client: Municipality of the District of Clare

SUMMERSIDE STORMWATER MANAGEMENT GUIDELINES, PE (2015)

Project Manager responsible for directing staff who reviewed International best practices applied to PEI and made recommendations on future 'green' stormwater management techniques. Client: City of Summerside



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MUNICIPAL PLANNING STRATEGY, BARRINGTON, NS (2013)

Project Manager worked closely with Council, PAC and the community to develop new Municipal Planning Strategy and Land Use Bylaw. Client: Municipality of Barrington

ENVIRONMENTAL POLICY REVIEW BOILERPLATE, HALIFAX, NS (2013)

Project Manager responsible for team reviewing Environmental policies in 22 Land Use Bylaws and developing one standard section to be implemented across all plans. Client: Halifax Regional Municipality

MUNICIPAL PLANNING STRATEGY, CLARE, NS (2010)

Project Manager responsible for preparing the District's first Municipal Planning Strategy. Client: Municipality of the District of Clare

MUNICIPAL PLAN REVIEW, ST. STEPHEN, NB (2010)

Reviewed background report and assisted with policy development. Client: Town of St. Stephen

LAND USE BY-LAW, DIGBY, NS (2009)

Project Manager involved with enabling a new fly-in residential development at the Digby Municipal Airport. Client: Town of Digby

NSURB APPEAL, BEDFORD ICE CREAM STANDS, NS (2009)

Planner providing professional evidence. Reviewed the proposal against the relevant policies within the Bedford Municipal Plan and Land Use By-law and provided the client with a professional planning opinion report. Client: Daily Green

MUNICIPAL PLAN REVIEW, WOODSTOCK, NB (2009)

Policy Planner. Reviewed existing Municipal Plan, held public meetings, drafted new plan, and prepared draft documents for Council's review. Client: Town of Woodstock

MUNICIPAL PLAN REVIEW, NEW MARYLAND, NB (2008)

Senior Planner. Reviewed the Municipal Plan and Zoning By-Law, drafted new plan policy and zoning regulations, and presented proposed revisions to Planning Advisory Committee and Village residents. Client: Village of New Maryland

UTILITY AND REVIEW BOARD APPEAL, TRURO, NS (2005)

Policy Planner. Prepared professional planning opinion and policy interpretation for multi-unit project in Truro. Client: Town of Truro

YEARS OF PROFESSIONAL EXPERIENCE

22

EDUCATION AND PROFESSIONAL MEMBERSHIPS

Master of Urban and Rural Planning, Dalhousie University, Halifax, NS	2000
Bachelor of Arts, Geography, specialization in Planning, Saint Mary's University, Halifax, NS	1998
Member, Canadian Institute of Planners	CIP
Licensed Professional Planners Association of Nova Scotia	LPP



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Ken Watters, Senior Planning Technician

As a Planning Technician with more than 27 years' experience, Ken Watters enjoys the challenging aspects of planning as well as working with CAD and 3D modeling software. He is proficient in AutoCAD, SketchUp, Adobe InDesign, Adobe Photoshop and Solid Edge v19.

Ken's general tasks include gathering, compiling and interpreting current mapping information, evaluating and confirming the accuracy of mapping data, preparing multiple land use options and designs, incorporating design changes developed from client requests, and preparing drawings and specifications for planning applications and master planning initiatives.

CAREER

- 2019 – Current Senior Planning Technician, Zzap Consulting Inc.
- 2014 – 2019 Planning Technician, Planning, Landscape Architecture and Urban Design, WSP
- 2010 – 2013 Planning Technician, Planning, GENIVAR (now named WSP)
- 2007 – 2010 Planning Technician, Planning, Terrain Group Inc. (GENIVAR Acquisition)
- 1998 – 2007 Mechanical Tooling Designer, GN Plastics Co. Ltd., Chester, NS
- 1993 – 1998 CAD Technician, Barber Engineering Consulting Services, Halifax, NS
- 1992 – 1993 CAD Technician, Paul Skerry Associates, Halifax, NS

PROJECT EXPERIENCE

COMMERCIAL REAL ESTATE

O'REGAN'S PROPERTIES LTD., HALIFAX AND BRIDGEWATER, NS (2019-ONGOING)

Planning Technician responsible for property mapping, concept plans and Sketchup models for commercial retail mixed-use development.

LOBLAW INC., ATLANTIC CANADA (2007-2018)

Planning Technician responsible for preparing concept and landscape plans for various Superstore locations including Gas Bars.

CANADIAN TIRE CORP., ATLANTIC CANADA (2007-ONGOING)

Planning Technician responsible for preparing concept plans, landscape plans and building façades for various Canadian Tire stores and gas bars

KENT BUILDING SUPPLIES, SYDNEY, NS (2018)

Planning Technician responsible for preparation of concept plans for a new store location.

PROREIT, HALIFAX, NS (2017-2018)

Planning Technician responsible for preparation of concept plans for various sites in the Halifax area.

KENT BUILDING SUPPLIES, LOWER SACKVILLE, NS (2013-2018)

Planning Technician responsible for preparing concept plans for redeveloping the existing commercial retail property.



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BAYERS LAKE PHASE 2, HALIFAX, NS (2016)

Planning Technician responsible for concept plans for a commercial retail mixed-use development. Client: Ivanhoe Cambridge.

EON SQUARE, INNOVATION DRIVE, DARTMOUTH, NS (2015)

Planning Technician responsible for preparing concept plans for a business campus. Client: Armour Group

TOWER CROSSING, REGINA, SK (2015)

Planning Technician responsible for preparing concept plans for a large commercial retail mixed-use development. Client: SRC Holdings Inc.

WESTWINDS DEVELOPMENTS, MORINVILLE, AB (2013)

Planning Technician responsible for preparing concept plans for a commercial retail mixed use development. Client: Alluvium Developments Inc.

CAMGILL ENTERPRISES LTD., LEDUC COUNTY, AB (2012-2013)

Planning Technician responsible for preparing concept plans for a Custom Vac Services manufacturing and repair facility. Client: Camgill Enterprises Ltd.

INTERCHANGE RETAIL MIXED-USE DESIGN, ANTIGONISH, NS (2012)

Planning Technician responsible for preparing concept plans for a commercial retail mixed use development. Client: Nova Construction Inc.

IRVING OIL, ATLANTIC CANADA (2012)

Planning Technician responsible for preparing concept plans for the redevelopment of the Irving Big Stop site, Enfield, Nova Scotia.

COBALT PROPERTIES LIMITED, ATLANTIC CANADA AND NEW ENGLAND, US (2011-2012)

Planning Technician responsible for concept plans, marketing spec sheets, interior floor plans, and 3D SketchUp models for various sites. Client: Cobalt Properties

CONCEPT AND LANDSCAPE PLANS, NOVA SCOTIA (2010-2012)

Planning Technician responsible for preparing concept plans and landscape plans for various NSLC stores in Nova Scotia. Client: Nova Scotia Liquor Commission

ROYCOM INC., MONCTON, NB (2010)

Prepared marketing concept plans for mixed use commercial / retail development. Client: Roycom Inc.

GAS BAR CONCEPT PLANS, ATLANTIC CANADA (2010)

Preparing concept plans for proposed gas bars. Client: Costco Wholesale

PARTSOURCE, DARTMOUTH, NS (2009)

Planning Technician responsible for preparing concept plans, landscape plans and building façades.

MARINA DESIGN PROJECT, JEDDORE, NS (2009)

Responsible for graphic design and digital information management support. Client: Sea Rover Marine

COBEQUID PASS RETAIL MIXED-USE DESIGN, NS (2008)

Planning Technician responsible for preparing concept plans for a retail outlet mixed use development. Client: Mike MacDonald

MARKETING PLANS, ATLANTIC CANADA (2008)

Prepared marketing plans for various projects around the Maritimes. Client: Arcturus Realty

RESIDENTIAL DEVELOPMENT AND SERVICING

WESTWOOD DEVELOPMENTS LTD., HALIFAX, NS (2017-ONGOING)



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Planning Technician responsible for preparing concept plans and Sketchup models for various residential developments around Halifax.

FH CONSTRUCTION, HALIFAX, NS (2012-ONGOING)

Planning Technician responsible for preparing concept plans and Sketchup models for various residential developments around Halifax.

OPEN SPACE SUBDIVISION DESIGN, BEAVERBANK, NS (2015-2017)

Planning Technician responsible for the preparation of concept plans for a classic and hybrid open space design. Client: Marque Investments Ltd.

FOREST LAKES COUNTRY CLUB, ARDOISE, NS (2013-2017)

Planning Technician responsible for preparing concept plans for a residential development. Client: Terra Firma Development Corporation

BANC DEVELOPMENTS, HALIFAX, NS (2012-2017)

Planning Technician responsible for preparing concept plans for various residential developments around Halifax.

SOUTHPORT CONDO DEVELOPMENT, BARRINGTON STREET, NS (2013)

Responsible for concept plan and landscaping plan. Client: Urban Capitol / Killam Properties

MCCABE LAKE NORTH, LOWER SACKVILLE, NS (2012)

Planning Technician responsible for preparing concept plan for residential development. Client: Twin Brooks Developments

EAGLERIDGE ESTATES, BRIDGEWATER, NS (2011)

Planning Technician responsible for concept plans for a Development Agreement. Client: Harry Steenbakkens

ARMCO CAPITAL, NS AND NB (2007-ONGOING)

Planning Technician responsible for preparing concept plans for various residential developments around the Maritimes. Client: Armco Capital

CARLTON TERRACE, HALIFAX, NS (2010-2011)

Responsible for SketchUp model concept. Client: Killam Properties

SHAUNSLIEVE, HALIFAX, NS (2010)

Planning Technician responsible for preparing concept plan for residential development. Client: Killam Properties

KIEL DEVELOPMENTS LTD. OPEN SPACE SUBDIVISION DESIGN, COLE HARBOUR, NS (2010)

Prepared concept plans for a classic and hybrid open space design. Client: Kiel Developments Ltd.

TWIN BROOKS PHASE 3 RESIDENTIAL DEVELOPMENT, SACKVILLE, NS (2009)

Prepared concept plans for a development agreement. Client: Twin Brooks Developments

VALERIUM GROUP LTD. RESIDENTIAL COMMUNITY DESIGN, HERRING COVE, NS (2009-2010)

Prepared concept plans for a development agreement. Client: Valerium Group Ltd.

VALERIUM GROUP LTD. OPEN SPACE SUBDIVISION DESIGN, FALL RIVER, NS (2009)

Prepared concept plans for a classic and hybrid open space design. Client: Valerium Group Ltd.

CALIBER CONSULTING LTD., OAKFIELD, NS (2009)

Prepared concept plans for a classic and hybrid open space design. Client: Caliber Consulting Ltd.

RAMAR CONSTRUCTION LTD., FALL RIVER, NS (2009)

Planning technician responsible for preparing concept plans for a residential development. Client: Ramar Construction Ltd.

KELTIC GARDENS, LAWRENCETOWN, NS (2009)

Responsible for preparing concept plans for residential development. Client: Scotian Homes



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MUNICIPAL

CITY OF DIEPPE TRANSIT TERMINAL, DIEPPE, NB (2018)

Planning Technician responsible for multiple concept options for various sites in the Dieppe area. Client: City of Dieppe

WRIGHTS COVE TRANSIT TERMINAL, DARTMOUTH, NS (2017)

Planning Technician responsible for multiple concept options for a new transit terminal. Client: Halifax Regional Municipality

MUNICIPAL PLANNING STRATEGY AND LAND USE BYLAW DEVELOPMENT, MUNICIPALITY OF THE DISTRICT OF CLARE, NS (2009-2016)

Assisted with developing the generalized future land use, watershed maps and zoning maps. Client: Municipality of the District of Clare

CITY OF SAINT JOHN TRAILS & BIKEWAYS STRATEGIC PLAN, SAINT JOHN, NB (2010)

Responsible for the development of trail design standards.

DIGBY AIRPORT MUNICIPAL PLANNING STRATEGY AND LAND USE BYLAW DEVELOPMENT, DIGBY, NS (2009)

Planning Technician responsible for preparing residential land use concepts and general future land use maps for the Digby Airport Municipal planning area. Client: Digby Municipal Airport

INDUSTRIAL

KENSINGTON BUSINESS PARK, REGINA, SK (2014)

Planning Technician responsible for preparation of land use concept plans. Client: Kensington Greens Development Corp.

Saint John Industrial Parks, Saint John, NB (2013) Planning Technician responsible for creating a site selection for industrial development map for the Saint John area as well as individual site detail sheets. Client: Saint John Industrial Parks

LAUER INDUSTRIAL PARK, BRAZEAU COUNTY, AB (2013)

Planning Technician responsible for preparing concept plans for an Area Structure Plan

BAYERS LAKE INDUSTRIAL PARK, HALIFAX, NS (2011)

Planning Technician responsible for preparing concept plans and Sketchup 3D model support for the Industrial Park Expansion. Client: Banc Developments Ltd.

SPRUCE LAKE INDUSTRIAL PARK, SPRUCE LAKE, NB (2009)

Planning Technician responsible for preparing concept plans for a large industrial park development.

ROCKY LAKE DRIVE, BEDFORD, NS (2009)

Responsible for SketchUp model concept and 3D visualization for proposed liquid natural gas tank. Client: Dexter Construction

MASTER PLANNING

SHANNON PARK, DARTMOUTH, NS (2015-2017)

Planning Technician responsible for preparing concept and land use plans for future master planned community. Client: Canada Lands Company

PORT OF HALIFAX MASTER PLAN, HALIFAX, NS (2017)

Planning Technician responsible for graphic design support. Client: Port of Halifax

THE LINKS AT BRUNELLO, HALIFAX, NS (2009-2017)



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Planning Technician responsible for preparing concept plans for a master planned community. Client: The Links at Brunello

VARIOUS CLIENTS, PORT WALLACE, NS (2009-2017)

Responsible for preparing concept and land use master plans for a large future residential development.

SEVEN LAKES DEVELOPMENT LIMITED, PORTERS LAKE, NS (2009-2017)

Responsible for preparing concept and land use master plans for future conservation residential development.

ÉCOLE DE LA RIVE-SUD, BLOCKHOUSE, NS (2008)

Responsible for preparing concept plans for a retail / institutional mixed-use development.

URBAN DESIGN SUPPORT

COGSWELL REDEVELOPMENT, HALIFAX, NS (2016-2018)

Planning Technician responsible for preparing concept plans and Sketchup models for an intersection redevelopment. Client: Halifax Regional Municipality

CLAIRMONT STREETScape, CLAIRMONT, AB (2012-2015)

Planning Technician responsible for creating concept plans, cross section layouts and design support. Client: County of Grande Prairie

WETASKIWIN STREETScape, WETASKIWIN, AB (2010-2015)

Planning Technician responsible for 3D SketchUp and graphic design support and concept for phases 3 and 4. Client: Town of Wetaskiwin.

SPRING GARDEN ROAD STREETScape AND QUINPOOL ROAD STREETScape, HALIFAX, NS (2009)

Planning Technician responsible for graphic design and digital information management support. Client: Halifax Regional Municipality

FOOD SERVICE DESIGN SUPPORT

DALHOUSIE UNIVERSITY DINING HALL, HALIFAX, NS (2012)

Responsible for kitchen and food storage / preparation area floor plan and details. Client: Dalhousie University

CABOT LINKS CLUB HOUSE, INVERNESS, NS (2011)

Responsible for bar, kitchen and food storage/preparation area floor plans. Client: Cabot Links

COMMERCIAL RESTAURANT / RETAIL LAYOUT, WHITBOURNE, NL (2010)

Responsible for multiple tenant interior floor plan for Mary Brown's, Circle K, and Tim Horton's. Client: Cobalt Properties

COMMERCIAL RETAIL LAYOUT, PARADISE, NL (2010)

Responsible for Newfoundland Labrador Liquor Commission interior floor plan. Client: Cobalt Properties

YEARS OF PROFESSIONAL EXPERIENCE

27

EDUCATION

Diploma, Architectural Drafting, AutoCAD & Manual Skills, Nova Scotia Community College, Halifax, NS
1992



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Solid Edge-Advanced Training, J-Squared Technologies, Ottawa, ON
2000

Visual Basic, Dalhousie University CTE
2001



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Justine Bowles, NSAA, NLAA, MRAIC, Principal

Justine Bowles believes that creativity and communication are two of the main building blocks of architecture and strives to bring both to all aspects of her projects. Her expertise and innovative ideas have been honed through her 9+ years of experience and involvement in a wide range of work including residential, commercial, and restoration. She has demonstrated experience in design for both new buildings and adaptive-reuse and continues to gain experience in all building types. Her focus on communication and collaboration through her project management results in projects being delivered on time and on budget. With past work experience throughout North America, Justine has had the opportunity to educate herself on building technologies of varying climates as well as find design inspiration.

Justine's involvement occurs at all aspects of project development from the practical abilities such as design concept developing, construction documentation, to the management the project through construction. Strong communication leads to design innovation, and with this Justine excels at providing concept renderings and graphic presentations to convey design intention and be interpreted by all. Born and raised in Nova Scotia, Justine is passionate about creating built spaces to contribute to the unique fabric of Atlantic Canada's towns and cities.

CAREER

2019-current	Principal Architect - zzap Consulting Inc., Halifax, NS
2016-2019	Intern Architect – Kassner Goodspeed Architects Ltd., Halifax, NS
2014	Architectural Internship – Ronnette Riley Architect, New York City, NY
2012	Architectural Internship – Guy Architects, Yellowknife NWT

PROJECT EXPERIENCE

COMMERCIAL AND MULTI-UNIT RESIDENTIAL

SEYMOUR ST. STUDENT MULTI-UNIT, HALIFAX NS (2019-PRESENT)

Project Lead for an 6 storey wood-framed (later steel) 141-unit development in Peninsular Halifax. Responsible for facilitating the schematic design, design development and permit application process, continuing through to construction drawings and construction administration. Responsible for coordination between all consultants and suppliers. Client: Werkliv

LAMBE'S LANE STUDENT MULTI-UNIT, ST. JOHN'S, NL (2019-PRESENT)

Project Lead for a 6 storey 200+ unit development in St. John's NL. Responsible for facilitating conceptual and schematic design of the project working closely with the zzap planning team to facilitate the project approvals. Expected to be approved by council in August of 2021, this project will continue through to full detailed design. Client: Werkliv

THE BELLO MULTI-UNIT, DARTMOUTH, NS (2019-PRESENT)

Project Lead for a 5 storey 46 unit development containing multiple housing typologies on Waverly Road in Dartmouth. Responsible for facilitating conceptual and schematic design of the project working closely with the zzap planning team to facilitate the project approvals. Expected to be approved by council in August of 2021, this project will continue through to full detailed design. Client: Yellowstone Commercial



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SOUTH PARK & BRENTON DEVELOPMENT, HALIFAX, NS (2017-2021)

Project Lead for an 11 storey multi-unit development in downtown Halifax. Responsible for facilitating the design development and permit application process, continuing through to construction drawings and construction administration. Responsible for coordination between all consultants and suppliers. Client: Olympus Properties Ltd.

THE PROMENADE ROBIE SOUTH, HALIFAX, NS (2016-PRESENT)

Architectural team member of a multi-disciplinary team for development of over 400 residential units, 33,500 sq.ft. commercial space, and heritage house restoration in Peninsular Halifax. Currently in approval process, the project involves various expertise including architecture, streetscape design, urban planning, and heritage conservation. Duties included concept plan development, 3-D modelling and concept image rendering, presentation graphics and documents, attending committee, Public and Council meetings. Client: 29th & State Street Developments Ltd.

PORTLAND STREET MIXED USE DEVELOPMENT, DARTMOUTH, NS (2019-2020)

Project Lead for a 10-unit mixed use development on Portland St. Dartmouth consisting of the consolidation and renovation of two existing historic commercial properties. Responsible for the schematic design of the project and development of conceptual presentation images, as well as permit drawing development and permit application process. Client: Bruno Builders

MAIN STREET MIXED USE DEVELOPMENT, ANTIGONISH, NS (2018-2019)

Project lead for a 7-unit mixed use development on Main St. Antigonish consisting of the adaptive re-use and new addition to an existing heritage property. Carried the project through schematic design, and permitting with the town of Antigonish, through to construction drawings and construction administration. Client: Private

COMMERCIAL DEVELOPMENT

TIMBERLEA ANIMAL HOSPITAL, HALIFAX, NS (2019-2020)

Project lead for an new timber framed Duties include schematic design and design development as well as coordination between all consultants and suppliers. Responsible for facilitating the design development and permit application process, continuing through construction drawings and construction administration. Client: Bruno Builders

ROBIE STREET GARAGE, HALIFAX, NS (2019)

Project lead for an adaptive re-use of an existing commercial building to an automotive garage. Duties include schematic design and design development as well as coordination between all consultants and suppliers. Currently in the process of permit application. Client: Aris & B Group

STARBOARD DRIVE COMMERCIAL, HALIFAX, NS (2018)

Architectural team member of a new commercial building in Bedford South. Responsible for facilitating the design development and permit application process, continuing through construction drawings and construction administration. Client: Premax Group

HERITAGE RESTORATION

CARLTON & COLLEGE - THE PROMENADE ROBIE SOUTH, HALIFAX, NS (2016-PRESENT)

Architectural team member of a multi-disciplinary team for development of over 400 residential units, 33,500 sq.ft. commercial space, and heritage house restoration in Peninsular Halifax. Currently in approval process, the project involves a large heritage conservation component. Duties included concept plan development, 3-D modelling and concept image rendering, presentation graphics and documents, attending committee, Public and Council meetings. Client: 29th & State Street Developments Ltd.



architecture + planning
1 Canal St, Dartmouth NS B2Y 2W1
www.zzap.ca

HENRY HICKS CLOCK TOWER RESTORATION, HALIFAX, NS (2017)

Design lead for the preparation of a series of design solutions for a landscaped solution to the accessible entry to the Dalhousie Henry Hicks building. Conducted site analysis, code research and well as materials research to create 2D and 3D graphics to submit to client for costing. Client: Dalhousie University

INSTITUTIONAL

ST.FX BLOOMFIELD CENTRE GOLDEN X INN RENOVATION AND FIRE PROTECTION, ANTIGONISH, NS (2021-PRESENT)

Design lead for the preparation of a series of design solutions for the renovation and building upgrades of the existing Golden X Inn at St.FX University. Conducted analysis of existing conditions as well as materials research, resulting in a proposed design strategy with 2D and 3D graphics. Client: St.FX University

HENRY HICKS QUADRANGLE RENOVATION AND RAMP STUDY, HALIFAX, NS (2017)

Design lead for the preparation of a series of design solutions for the restoration of the existing clock tower on the henry hicks Building at Dalhousie University. Conducted heritage research and analysis of existing conditions as well as materials research, resulting in a proposed restoration design strategy with 2D and 3D graphics. Client: Dalhousie University

YEARS OF PROFESSIONAL EXPERIENCE

9+

EDUCATION AND PROFESSIONAL MEMBERSHIPS

Masters of Architecture, Dalhousie University, Halifax, NS
2016

Bachelor of Environmental Design Studies, Dalhousie University, Halifax, NS
2013

Bachelor of Science with Honours in Chemistry, St. Francis Xavier University, Antigonish, NS
2011

Architect, Royal Architectural Institute of Canada
MRAIC

Architect, Nova Scotia Association of Architects
NSAA

NEIL FOUGERE, P.Eng. PRINCIPAL - Senior Civil Engineer

PROFILE

Neil has 15 years of experience in municipal engineering and has been involved in the design of a number of infrastructure projects throughout the Atlantic Provinces and across Canada. His area of expertise includes water distribution system design and modelling, storm drainage design, commercial/institutional site design, and serviced/un-serviced subdivision design. Neil also has extensive experience in the design of renewable energy projects including the design of access roads and laydown areas for wind energy developments.

EDUCATION

Project Management Bootcamp, PSMJ Resources, San Francisco (2010)
Erosion & Sediment Control for Highway Construction & Building Sites, Dalhousie University, Halifax, NS (2008)
Storm Water Detention Basin Design, University of Wisconsin, Madison, WI (2006)
AutoCAD Civil 3D, Atlantic CAD Solutions (2006)
Bachelor of Engineering, Civil, Dalhousie University, Halifax, NS (2005)
Diploma of Engineering, Dalhousie University, Halifax, NS (2003)

PROFESSIONAL AFFILIATIONS

Member, Engineers Nova Scotia
Member, Association of Professional Engineers & Geoscientists of New Brunswick
Member, Association of Professional Engineers of Prince Edward Island
Member, Engineers and Geoscientists British Columbia
Member, Association of Professional Engineers & Geoscientists of Alberta

CAREER

Principal, Senior Civil Engineer, DesignPoint (2020 – Present)
Senior Civil Engineer, DesignPoint (2019)
Project Engineer, GENIVAR/WSP (2010 - 2018)
Project Engineer, Terrain Group Inc. (2010)
Engineer-in-Training, Terrain Group Inc. (2006 – 2010)
Construction Inspector Assistant, Halifax Regional Municipality (2004 - 2005)
Road Person, Survey, Acute Surveys (2004 – 2005)

PROFESSIONAL EXPERIENCE

Wickwire Station, Lantz, NS (Ongoing): Project Manager responsible for the detailed design of a multi-phase 520-acre multi-use development in Lantz. Project includes topographic and legal survey, detailed plan and profile drawings for public infrastructure, storm drainage model and plan, watercourse bridge design, wastewater pumping stations, subdivision grading plans, intersection designs, single lane roundabout design, erosion and sedimentation control plan, cost estimates, and utility service plans.
Client: Armco Capital Inc.



EXPERTISE

- Municipal Infrastructure Design
- Commercial and Institutional Site Design
- Water Distribution System Modelling
- Storm Drainage Design
- Serviced/Un-Serviced Subdivision Design
- Wind Farm Access Roads
- Street Layout and Design

PROFESSIONAL EXPERIENCE CONTINUED

Lovett Lake Estates, Beechville, NS (Ongoing): Project Manager responsible for the detailed design of a 43 acre residential development in Beechville. Design includes detailed design for public infrastructure including new roadways and pedestrian routes, storm drainage model and plan, sanitary sewer upgrades, subdivision grading plan, entrance design, water system model, erosion and sedimentation control plan, cost estimates, utility service plan, and supplemental topographic survey as well as legal surveying.

Client: Armco Capital Inc.

Eon Square, Bedford, NS (Ongoing): Project Engineer (while at WSP Canada and DesignPoint) responsible for the detailed grading and servicing for a 15,795 m² office building and amenity building. This site will eventually house up to 92,905 m² of office space. Continuing to provide engineering support related to future development.

Client: Armour Group.

Millbrook Apartment Development, Cole Harbour, NS (Ongoing): Project Engineer for the Millbrook Apartment development which included approximately 200 residential units within three new buildings as well as the construction of parking lots and access roads located on the Millbrook First Nation lands in Cole Harbour, NS. This includes the design of services (water, wastewater, and stormwater), grading, and street layout.

Client: Lindsay Construction.

Truro Gaming Center, Truro, NS (2020): Design Engineer for the design and construction review for a new gaming center located on with the Millbrook First Nations lands in Truro, NS. DesignPoint's role in this project included surveying and engineering for the project, including the servicing and grading design for the project.

Client: Lindsay Construction

Hammonds Plains Gaming Center, Hammonds Plains, NS (2020): Design Engineer for the design and construction review for a new gaming center for the Sipeknekatik First Nations located on Hammonds Plains Road. DesignPoint role in this project included surveying and engineering for the project, including the servicing and grading design for the project.

Client: Lindsay Construction

Springhill Geothermal Business Park, Springhill, NS (2020) Project Manager & Lead Engineer involved with the concept design for a green 220-acre business park in Springhill, NS that harnesses the geothermal potential of Springhill's abandoned mine network. Services included water system modelling, wastewater and stormwater analysis and several variations of conceptual road layouts including AT and a multi-use trail. A district energy strategy was also developed for this project including a proposed energy centre (that uses extraction and injection wells from the underground mine shafts) and supply and return lines throughout the road network.

Client: Municipality of Cumberland.

Harbour Isle, Dartmouth, NS (2015-2018): Project Engineer (while at WSP Canada) for the Harbour Isle project which is a 600-unit residential development. This project involved the servicing and grading for a number of multi-unit buildings.

Client: Elm Developments.

HRM Fire Station Site Suitability, Halifax and Bedford (2018): Project Engineer responsible for reviewing the site suitability for three (3) potential fire station sites, including two Bedford, and one on Herring Cove Road. The project included a review of site access, site serviceability and preliminary grading design. Class 'D' cost estimates for the site upgrades were prepared as well as a site suitability report with recommendations.

Client: HRM Real Estate.

Herring Cove Road Storm Sewer Design, Spryfield, NS (2019): Project Manager and Senior Civil Engineer for design of stormwater system to support the installation of 800 m of new active transportation facilities along Herring Cove Road.

Client: Halifax Regional Municipality

PROFESSIONAL EXPERIENCE CONTINUED

Elmsdale Business Park Environmental Support, Elmsdale, NS (2019): Senior Engineer assisting with stormwater plan to support Environmental Assessment application for Nova Scotia Environment.

Client: Municipality of East Hants

Prime Lane Bare Land Condominium Development Design, New Minas, NS (2019): Project Engineer for the design of services (water, on-site wastewater, and stormwater), grading, and layout of a proposed residential bare land condominium development. The engineering work included preliminary and detailed design of the road network, potable water distribution network design and analysis, site grading and stormwater management, on-site wastewater treatment design, project management, and regulatory approvals.

Client: BuschMac Developments Ltd.

Kings Wharf, Dartmouth, NS (Ongoing): Project Engineer for the Kings Wharf Development which is a 1500-unit residential development that includes 16 mixed-use lots and approximately 500m of new public road. This includes the design of services (water, on-site wastewater, and stormwater), grading, and street layout.

Client: Fares & C. Developments Inc.

Hammonds Plains Road Car Wash, Bedford, NS (2020): Design Engineer for the design and construction review for a new Car wash located at 1220 Hammonds Plains Road. DesignPoint's role in this project included surveying, and engineering for the project, including the servicing and grading design for the project.

Client: Lindsay Construction

Cole Harbour All Weather Sports Field, Cole Harbour, NS (2016-2017): Design Engineer (while at WSP Canada) for the design and construction review for a new all weather sports field located in Cole Harbour. WSP's role in this project included surveying, and engineering for the project, including the servicing and grading design for the project.

Client: Halifax Regional Municipality

BMO Sports Field, Clayton Park, NS (2020): Design Engineer for the design and construction review for a new washroom facility for the BMO sports field located Clayton Park. DesignPoint's role in this project includes engineering for the site services and permitting support.

Client: Halifax Regional Municipality

Gladstone, King and Clifton Recapitalization, Halifax NS (2020): Project Manager & Lead Engineer for the detailed design and construction of approximately 1100 m of street recapitalization, including Gladstone Street, Clifton Street, and King Street located in the North end of Halifax. The work included full depth pavement renewal, partial curb renewal, sidewalk spot replacement, as well as some other minor components to accommodate the planned work or improve existing street conditions.

Client: Halifax Regional Municipality

Centennial Drive Culvert Replacement, West Hants, NS (2020): Project Manager responsible for the detailed design and review of updated storm drainage calculations for the culvert replacement. This included completing a detailed topographic survey of the area and preparing detailed design drawings in accordance with Nova Scotia Environment requirements as well as the necessary permit application. Previously completed storm drainage studies were reviewed along with the preparation of a hydrologic and hydraulic model of the culvert and the watershed.

Client: Municipality of West Hants

JORDAN KEEPING

Engineering Technologist

PROFILE

Jordan Keeping has been building experience in civil and municipal design and construction since graduating from Nova Scotia Community College in May, 2015 and has experience with construction inspection and testing pressure pipes.

EDUCATION

AutoCAD Civil 3D Advanced Road Design Course (2016)
Civil Engineering Technology Diploma, Nova Scotia Community College, Dartmouth NS (2015)

CAREER

Engineering Technologist, DesignPoint (Jan 2019 – Present)
Civil Engineering Technologist, ABLE Engineering, (May 2016 – Dec 2018)
Construction Materials Technician, AMEC Foster Wheeler May, (2015 - May 2016)
Construction Inspection Assistant, Halifax Regional Municipality, (June 2014-Sept 2014)

PROFESSIONAL EXPERIENCE

Tyler Street Extension Development, Enfield, NS (2020): Engineering Technologist providing inspection services for the new urban residential development in Enfield, NS that includes 52 townhome units on a 240m long extension of Tyler Street and 36 semi-detached units on a new 225m long crescent that intersects with Tyler Street. Duties include supervision of the municipal water, wastewater, and stormwater system installation and testing to ensure the work was completed in accordance with the approved design, coordination of communication between the contractor and design engineer, collection and review of as-builts on the municipal systems using a total station, and record drawing production from as-builts collected.
Client: FH Development Group.

Springhill Geothermal Business Park, Springhill, NS (2019): Engineering Technologist involved with the concept design for a green business park in Springhill that harnesses the geothermal potential of an abandoned mine network. The project included the concept design of the road systems, lot layouts and the storm, water, sanitary and geothermal services.
Client: Cumberland Energy Authority (CEA)

Olde Town Hills Subdivision, Bridgewater, NS (2016): Engineering Technician (while at ABLE Engineering) involved with the design of a fully serviced 15 acre subdivision with approximately 30 single family homes and two 30-unit apartment buildings. Work included road plan and profiles and full water, storm, wastewater servicing and storm water management pond design.
Client: Town of Bridgewater

48 Farringdon Way Apartment, Bedford, NS (2021): Engineering Technologist involved with the design and production of engineering drawings for a 40-unit apartment building. The project included water, sanitary and storm water management designs for the entire site, as well as site design and grading.
Client: Jetco Contracting Inc.



EXPERTISE

- Civil/Municipal Design
- Preparation and Production of Engineering Drawings
- Construction Inspection and Testing

PROFESSIONAL EXPERIENCE CONTINUED

Shelburne Municipal Building, Shelburne, NS (2021): Engineering Technologist involved with the design and production of engineering drawings for the new municipal building for the town of Shelburne. The project included water, sanitary and storm water management designs for the entire site, as well as site design and grading.

Client: Harvey Architecture

Nine Locks Brewery, Dartmouth, NS (ongoing): Engineering Technologist involved with the design and production of engineering drawings for 22,000 sq. ft brewery. The project included water, sanitary and storm water management designs for the entire site, as well as site design and grading.

Client: Nine Locks Brewing Company

New Waterford Community Recreation Centre, New Waterford, NS (2021): Engineering Technologist involved with the design and production of engineering drawings for an artificial turf soccer field, natural soccer field, tennis courts and auxiliary buildings. The project included water, sanitary and storm water management designs for the entire site, as well as site design and grading.

Client: Cape Breton Regional Municipality/NSTIR

Cow Bay Gas Bar, Eastern Passage, NS (2020): Engineering Technologist responsible for the inspection of pipework installation and testing for the site re-development of the existing commercial building and two dwellings into a gas bar, convenience store, and car wash.

Client: Lindsay Construction.

Brunello Commercial, Timberlea, NS (2020): Engineering Technologist responsible for the inspection of pipe installation and testing for the extension of water and wastewater to the commercial site as part of the Brunello Estates development.

Client: Brunello Estates.

Multi-Unit Development, Kentville, NS (2019): Engineering Technologist involved with the design and production of engineering drawings for four 47-unit apartment buildings. The project included water, sanitary and storm water management designs for the entire site, as well as site design and grading.

Client: PG Developments

Princess Auto Retail Building, Burnside, NS (2018): Field Inspector (while at ABLE Engineering) for construction of new industrial building being constructed. Project included site grading, stormwater management, water system, and wastewater system.

Client: Princess Auto LTD.

Valley Regional Hospital Addition, Kentville, NS (2017): Engineering Technologist (while at ABLE Engineering) responsible for the site grading, storm water management and water system design for the new dialysis building addition for valley regional hospital.

Client: Nova Scotia Health Authority

1100 Cole Harbour Road Apartment, Halifax, NS (2016): Engineering Technician (while at ABLE Engineering) involved with the site servicing and production of engineering drawings for this project and construction field inspections. The project included a 4-storey residential apartment and, two 1-storey commercial buildings.

Client: Kent Hill.

2300 Gottingen Street Apartment The VELO, Halifax, NS (2016): Engineering Technician (while at ABLE Engineering) involved with the design of a 103-unit residential apartment building with ground floor retail units. Work included water, storm, and wastewater servicing. Also provided cut fill estimates for the building and site construction.

Client: Ross Cantwell

PROFESSIONAL EXPERIENCE CONTINUED

2183 Gottingen Street Apartment, Upper Sackville, NS (2015): Engineering Technician (while at AMEC) involved with the design of a residential apartment building with 153 units. Project included water, storm and sanitary design for the building and site grading, as well as providing cut fill estimates.
Client: Housing Trust of Nova Scotia

Springhill Storm Sewer Replacement, Springhill, NS (2019): Engineering Technologist involved with the design of a storm sewer that had washed out in a large storm event. The project included the hydrologic analysis of the tributary watershed of the storm sewer, the sizing of the replacement culverts and, the detailed design of the culverts and ditches. Also included was the preparation of the tender package and NSE permit application for the project.
Client: Municipality of Cumberland County

Freemans Lumber Diversion Ditch & Sedimentation Pond, Greenfield, NS (2017): Engineering Technologist (while at ABLE Engineering) involved in the design of diversion ditch, culvert, and sedimentation pond for a large lumbermill that was having issues with sediment surface runoff to the Medway river. Work included analysis of existing systems, site inspections, storm water modeling, and production and review of engineering drawings.
Client: Harry Freeman & Son LTD.

Dayton and Port Maitland Sidewalk Yarmouth, NS (Ongoing): Engineering Technologist involved with the design of 1200 m of new sidewalk and storm system for the town of Yarmouth.
Client: Municipality of the County of Yarmouth.

Burgess Road Water & Wastewater Replacement, Shubenacadie, NS (2021): Engineering Technologist involved with the design of sewer, water, and road reconstruction on existing rural residential road in Shubenacadie, NS. Work includes preparation of engineering design drawings, tender package, and construction support services.
Client: Municipality of East Hants.

Scott Drive Sidewalk (Phase 1 & 2), Kentville, NS (2020): Engineering Technologist involved with the design of a new sidewalk and storm system for Scott Drive from Mee Road to Nichols Ave.
Client: Municipality of the County of Kings.

Kings Wharf Expansion, Dartmouth, NS (2019): Engineering Technologist involved with the design of 16 mixed-use lots for the continuation of the Kings Wharf development. The project included the detailed design of the roads, storm, water and sanitary services.
Client: Fares & Co. Developments Inc.

Herring Cove Road Storm Upgrade, Spryfield, NS (2019): Engineering Technologist involved with the design of upgrading the road from ditches to a storm sewer system. The project involved the detailed design of the new storm sewer system and retaining walls.
Client: Halifax Regional Municipality

285 & 305 Larry Uteck Apartment Buildings, Bedford, NS (2020): Engineering Technologist responsible for inspection of the municipal service installation and testing for two new twelve storey apartment buildings.
Client: Parsco Engineering & Construction Ltd.

Multi-Unit Residential Building, Halifax, NS (2020): Engineering Technologist responsible for inspection of the pipework installation and testing for a new multi-unit residential building on Preston Street in Halifax, NS.
Client: Westwood Construction Ltd.

Highland Avenue and Churchill Street Services & Street Renewal, Windsor, NS (2019): Engineering Technologist involved with the design for the renewal of existing municipal services (water, storm and sanitary) and the reconstruction of the streets. The project involved the detailed design of the water, storm and sanitary services as well as the preparation of the cost estimates and tender documents and specifications.
Client: Town of Windsor



**TOWN OF LUNENBURG
RFP #TOL2022016**

REQUEST FOR PROPOSALS
Upper King Street Extension Development

Proposals will be received no later than:
2:00 p.m. LOCAL TIME
June 30, 2022

Addressed to:
Business Coordinator
Town of Lunenburg
119 Cumberland Street
Lunenburg, NS B0J 2C0

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1.0 GENERAL TERMS AND CONDITIONS

Section 1 of this proposal document sets out a summary of requirements and outlines the general terms and conditions. The Town of Lunenburg shall be referred to as the “Town” throughout this document.

1.1 Purpose

The Town is seeking proposals regarding the development of lands at Upper King Street Extension in the Town of Lunenburg. This area of land is known as PID 60057387, PID 60057379, PID 60057395 and Upper King Street Extension - portion of PID 60579687 and consists of roughly 4 acres located on the north side of Old Town sloping towards Lunenburg’s Back Harbour. The properties are shown on a map attached as Appendix “A”. The Town is in the process of migrating the lots into the Land Registry system.

The purpose of this RFP is to receive residential concept proposals for development of the land in-keeping with the Town’s Comprehensive Community Plan (CCP), Municipal Planning Strategy (MPS), Land Use By-law (LUB) and Subdivision By-law. The Town is looking for a mixed-use residential development with a good mixture of affordable and accessible units. This RFP is seeking consultants to undertake design proposals and not seeking developers to undertake the actual physical build-out of the development. The physical built-out of the development and the divestiture of the lands will follow much later in the process following a public information session.

This RFP sets out the instructions for submitting proposals and procedures and criteria by which the successful Proponent may be evaluated, subject to the Town’s overriding discretion to determine what is in its best overall interests.

1.2 Proposal Submissions

Any change notices, appendices and addenda issued for this RFP shall be considered part of this proposal document. The proposal is to be submitted, clearly marked with **“Upper King Street Extension Development RFP”** and proposal document number **TOL2022016**, to Business Coordinator at 119 Cumberland Street, Lunenburg, NS, B0J 2C0 before the closing time on the closing date (Closing Time). Proponents must submit one (1) PDF copy via email to purchasing@townoflunenburg.ca or on a USB drive. Erasure, overwriting or strike-outs must be initialed by the person signing on behalf of the Proponent. Proposals will not be accepted after the Closing Time. The Town shall have the right in its absolute and unfettered discretion to determine whether a proposal has been received prior to the Closing Time. Proposal prices must remain open and available for acceptance by the Town for 90 days after the Closing Time. All proposals shall become the property of the Town of Lunenburg. It is the responsibility of each Proponent to submit all required documents as outlined in this RFP. Failure to quote on all options set out may disqualify your proposal.

1.3 Irrevocable Offer

The Proponent hereby acknowledges that offers contained within your response to this RFP shall remain open for acceptance by the Town of Lunenburg for a period of not less than ninety (90) days from the Closing Time specified in Section 1.6. Proponents may not make modifications to their Proposals after the Closing Time.

1.4 Proposal Costs

The Proponent shall be solely and fully responsible for all costs associated with the development, preparation, transmittal, submission of proposal, and any work performed prior to official appointment by the Town of Lunenburg.

1.5 Municipal Contact for RFP

It shall be the Proponent's responsibility to clarify any points in question with the Town of Lunenburg prior to submitting the proposal. Deadline for all inquiries is June 23, 2022. Inquiries regarding the specifications of the RFP and the RFP process should be directed to:

Title: Business Coordinator
Email Address: purchasing@townoflunenburg.ca

If a Proponent discovers any inconsistency, discrepancy, ambiguity, error, or omission in this Request for Proposal, they must notify the Town of Lunenburg immediately in writing.

Any revision to this Request for Proposal will be issued as an addendum to all known potential Proponents.

Please check the Town website townoflunenburg.ca/purchasing.html to determine if any addendums have been issued prior to the submission deadline.

1.6 Opening

Proposals will only be received by:

Title: Business Coordinator
Email Address: purchasing@townoflunenburg.ca

One (1) PDF copy of your proposal must be received by email prior to **2:00 p.m.** local time, **June 30, 2022**. Proposals will be signed by an official authorized to bind the Proponents will provide the name(s), title(s), address, and telephone number of the individual(s) to be contacted during the evaluation process. Proposals received later than the specified Closing Time may be returned unopened to the Proponent.

There will not be a public opening for this RFP. As this is a proposal document for which a number of criteria will be evaluated, the names of the Proponents who have submitted a proposal will be identified after the opening, upon request.

1.7 Selection Process

Selection – Subject to Section 1.9 of this RFP, the Town will not necessarily accept the lowest price or any proposal. Any implication that the lowest price or any proposal will

be accepted is hereby expressly negated. The successful Proponent(s) will be selected based upon evaluation criteria developed by the Town which in its sole discretion will determine the manner in which each response to this RFP meets the evaluation criteria. The proposal may be awarded to one Proponent only or more as the Town determines.

Evaluation Criteria – Subject to Section 1.9 of this RFP, each response to this RFP will be evaluated by the Town to determine the degree to which it responds to the requirements as set out herein. Because this is an RFP other factors in addition to price will be considered when submissions are evaluated.

Please indicate any requirements not met in your proposal with a brief description and reasons therefor.

The Town will read, review and evaluate each proposal. The below evaluation criteria table should be used as a reference only. The Town may in its sole and absolute discretion use or alter the below criteria or use some other evaluation criteria in its entirety.

Evaluation Criteria	Percentage
Price – value for money	25%
Ability to complete all RFP components	15%
Demonstrated understanding of project, work plan, methodology and schedule	25%
Project timeline	10%
Knowledge, experience, and technical competence of the Proponent and the proposed project team members as well as their ability to address the project scope	25%
TOTAL	100%

1.8 Modification and Withdrawal of Proposals

Proposal prices must remain open and available for acceptance by the Town for 90 days after the Closing Time. Proponents may not make modifications to their proposals after this. Proponents will not have the right to change conditions, terms or prices of the proposal once the proposal has been submitted in writing to the Town. All proposals shall become the Town's property. It is the responsibility of each Proponent to submit all required documents as outlined in this RFP.

1.9 Acceptance and/or Rejection of Proposals and Reservation of Rights

The Town is not under any obligation to award a contract, and reserves the right to terminate this RFP at any time for any reason, and to withdraw from discussions with all

REQUEST FOR PROPOSALS
Upper King Street Extension Development

or any of the Proponents who have responded. The receipt and opening of a proposal does not constitute acceptance of any proposal.

The Town reserves the right to reject all or any proposals, and to not necessarily accept the lowest proposal. The Town may accept any proposal that may be considered in the

best interests of the Town in its sole and absolute discretion. The Town also reserves the right in its sole and absolute discretion to waive any formality, informality, or technicality in any proposal. This includes the right to accept a proposal that is not strictly compliant with the instructions in the RFP document.

The Town reserves the right to negotiate, after the RFP Closing Time, with any Proponent to finalize service arrangements in the best interests of the Town.

The Town shall not be bound by trade or custom in dealing with and/or evaluating the responses to the RFP. The Town reserves the right to interpret any and all aspects of this RFP as may be most favorable to the Town.

Proponents will be deemed to have familiarized themselves with existing conditions and any other conditions which may affect performance of the contract. No plea of ignorance of such conditions as a result of failure to make all necessary examinations will be accepted as a basis for any claims for extra compensation.

Proponents waive any claim against the Town for compensation of any kind whatsoever as a result of its participation in or providing a response to this RFP process, including without limitation any claim for costs of proposal preparation or participation in negotiations, or for loss of anticipated profits, whether based in contract including fundamental breach, tort, equity, breach of any duty, including, but not limited to breach of the duty of fairness, breach of any obligation not to accept non-compliant proposals or any other cause of action whatsoever.

In submitting a proposal, the Proponent has accepted the reservation of rights as set out herein and agrees to be bound by same.

1.10 Governing Law and Jurisdiction

Any contract resulting from this RFP shall be governed by and interpreted in accordance with the laws of the Province of Nova Scotia. Any disputes shall be determined in the courts of Nova Scotia.

1.11 Proposal Form

The attached Proposal Form (3.0) must be completed and submitted with all proposals for consideration. Failure to complete and submit the proposal form could lead to the rejection of the proposal.

1.12 Freedom of Information and Protection of Privacy Act

The Town of Lunenburg is subject to the Municipal Government Act provisions relating to the freedom of information and protection of privacy provisions Freedom of Information and Protection of Privacy Act (FOIPOP) and associated Provincial legislation. Any proposal submitted to the Town may be required to be disclosed publicly if any request is to be made under FOIPOP. All proposals received in response to this RFP will be considered public.

1.13 Insurance Requirements

The successful Proponent shall at its own expense obtain and maintain until the completion of the contract and provide the Town with a Certificate of Insurance providing proof of:

- a. Professional Liability insurance covering the work and services described in this Agreement for an amount not less than \$2.0 Million per occurrence;
- b. Comprehensive General Liability insurance for an amount not less than \$2.0 Million per occurrence;
- c. Automobile Liability insurance for an amount not less than \$2.0 Million covering all vehicles used in any manner in connection with the performance of the work described in this RFP.

1.14 Conflict of Interest

The Proponent warrants that no conflict of interest exists with any Town staff, Council or Committee member regarding their RFP submission or with the Town's evaluation process. Should a conflict of interest exist or arise, the Town at its sole discretion may disqualify the proposal submission and/or contract as applicable.

1.15 Nova Scotia Worker's Compensation

The successful Proponent must be registered and remain in good standing with NS WCB throughout the term of a contract issued pursuant to this RFP.

1.16 Human Rights Act

The successful Proponent shall ensure full observance of the NS Human Rights Act in all dealings related to this project.

1.17 Ownership of Data and Information

All data, other information and all resulting reports and materials prepared by the successful Proponent shall be the exclusive property of the Town who reserves ownership rights to all ideas, plans, concepts, etc.

2.0 SPECIFICATIONS AND REQUIREMENTS

2.1 Background and Overview

The Town is seeking proposals regarding the development of lands at Upper King Street Extension in the Town of Lunenburg. This area of land is known as PID 60057387, PID 60057379, PID 60057395 and Upper King Street Extension - portion of PID 60579687 and consists of roughly 4 acres located on the north side of Old Town sloping towards Lunenburg's Back Harbour. This RFP is to receive residential concept proposals for development of the land in-keeping with the Town's Comprehensive Community Plan (CCP), Municipal Planning Strategy (MPS), Land Use By-law (LUB) and Subdivision By-law. The Town is looking for a mixed-use residential development with a good mixture of affordable and accessible units. This RFP is seeking consultants to undertake design proposals and not seeking developers to undertake the actual physical build-out of the development. The physical built-out of the development and the divestiture of the lands will follow much later in the process following a public information session.

Connectivity with the existing streets, walkways, open space (parks and playgrounds) and trails systems in support of a pedestrian-friendly streetscape and active transportation system are important aspects of any development proposal. Any development proposal should demonstrate the use of "complete" streets that are built in such a fashion for all users, no matter of age or ability. Barrier-free design of streets and other public areas should be demonstrated in the proposal. In addition, the Town will be requesting as part of the subdivision process a land dedication equal to 10% of the land mass to be transferred back to the Town as open space pursuant to Part 9.1 of the Town's Subdivision By-law.

The lands are located within the World Heritage Site (WHS) Buffer area as shown on the map in Appendix "B". The WHS Outstanding Universal Values (OUV's) are attached in Appendix "C". The National Historic Site's Statement of Significance is attached in Appendix "D". Any development proposal should be complimentary to the OUV's of the WHS as well as the Statement of Significance for the National Historic Site.

The proposed development scheme shall demonstrate the density and number of dwellings, the type of dwellings and the percentage and number of affordable and accessible dwelling units. 10 percent of the dwelling units shall be affordable units. Affordable housing development is defined here as housing which costs no more than 30% of the median household income within the applicable census dissemination area. The number of accessible units will be based upon the national building code based on the complete developed site scheme as presented by the proponent (not on individual aspects of the development).

Proponents should note that the properties are known to be archaeological hot spots and if any artifacts are found they must contact the Provincial Department of Communities, Culture and Heritage. Developers are encouraged to undertake a Resource Impact Assessment Report prior to any development.

Zoning Information – Current Zoning

PID 60057387

- Located in the Medium Density Residential (RM) Use Zone;
- Located in the Old Town New Town 2 (ONT2) Form Zone; and
- Located in Lot Zone 3 (LZ3).

PID 60057379

- Located in the Medium Density Residential (RM) Use Zone;
- Located in the Old Town New Town 2 (ONT2) Form Zone; and
- Located in Lot Zone 3 (LZ3).

PID 60057395

- Located in the Medium Density Residential (RM) Use Zone;
- Located in the Old Town New Town 2 (ONT2) Form Zone; and
- Located in Lot Zone 3 (LZ3).

PID 60579687 (Upper King Street Extension)

- Located in the Medium Density Residential (RM) Use Zone and the Lower Density Residential (RL) Use Zone;
- Located in the Old Town New Town 2 (ONT2) Form Zone and the OLD Town New Town 1 Form Zone; and
- Located in Lot Zone 3 (LZ3).

The Old Town New Town 2 (ONT2) Form Zone enables multiple main buildings on the lot. However, the Medium Density Residential (RM) Use Zone only permits four (4) residential dwellings plus one accessory dwelling for a maximum of five (5) dwelling units on the lot. The Town is looking for two (2) development schemes associated with the Old Town New Town 2 (ONT2) Form Zone; the Medium Density Residential (RM) Use Zone; and Lot Zone 3. To obtain the highest and best use of the property, a public street system needs to be implemented. The scheme may incorporate other existing rights-of-way, such as the extension of Duke Street and the perpendicular right-of-way from Cornwallis Street to accommodate the proposed street network.

The public street layout shall demonstrate the feasible of a sustainable and practical means of extending the street network and the extension of services including, but not limited to, storm, sewer and water services, curb and gutters, sidewalks, fire hydrants, pumping stations, and other services such as telephone, internet, electrical services and cable. Views down King Street extension through the development to the Back Harbour should be maintained if feasible.

The Town is also looking for two (2) development schemes associated with the Old Town New Town 2 (ONT2) Form Zone; the High Density Residential (RH) Use Zone; and Lot Zone 3. This would require a rezoning to the High Density Residential (RH) Use Zone where group dwellings are permitted without a restriction on the potential number of residential units per lot. In this fashion, no new public streets would be required. A

REQUEST FOR PROPOSALS
Upper King Street Extension Development

driveway with sewer and water laterals could be developed from Creighton Street, along King Street extension to service the development. Views down King Street extension through the development to the Back Harbour should be maintained if feasible.

2.2 Scope of Work

The scope of work shall include two (2) development schemes for a mixed use residential development that is consistent with the Town's CCP, MPS, LUB and Subdivision By-law (Existing zoning of Old Town New Town 2 (ONT2) Form Zone; the Medium Density Residential (RM) Use Zone; and Lot Zone 3) as well as two (2) development schemes for a mixed use residential development that is consistent with the Town's CCP, MPS, LUB and Subdivision By-law (with the proposed zoning of Old Town New Town 2 (ONT2) Form Zone; the High Density Residential (RH) Use Zone; and Lot Zone 3).

The four (4) development schemes will provide four (4) subdivision layouts or alternatively four (4) site plan layouts including as the case may be, but not limited to, the street layout, proposed servicing plan, proposed lot configurations, proposed use (number of dwelling units) of each lot configuration including the height and massing of the developments.

Each of the four (4) development schemes shall demonstrate how the proposals comply with the CCP, MPS, LUB and Subdivision By-law; how each demonstrates a good mixture of affordable and accessible units; how each provides a connectivity to the existing streets, walkways, open space (parks and playgrounds) and trails systems in support of a pedestrian-friendly streetscape and active transportation system consistent with the "complete street" concept and barrier-free design; how each provides the 10% land dedication pursuant to the Town's Subdivision By-law including but not limited to the location, grade analysis, type of open space uses and proposed infrastructure keeping in mind the concept of barrier free design and age friendly facilities (if indeed a subdivision scheme is considered); how each development scheme is complimentary to the WHS; and how each development scheme is respectful of the views overlooking Back Harbour.

The scope of work shall include a general financial cost analysis for the four (4) development schemes.

The scope of work shall include a draft restrictive covenant or other means, such as, but not restricted to, an Agreement for each of the four (4) development schemes as a means of ensuring any prospective purchaser will be legally required to fulfill the development scheme as presented.

The successful proponent shall be mindful of the electrical easement as shown on Appendix "E" – Electrical Easement Plan, where no structures (accessory or main buildings) can be located, but may be used as locations for roadways, driveways and/or parking areas.

2.3 Proposal Deliverables

The proposal shall include the following:

- a)** A cover letter signed by an officer of the company authorized to execute a contract with the Town.
- b)** Detailed project work plan description including a statement of understanding, research, analysis, detailed work approach and methodology purposed to be used in the development of the four (4) development schemes. The work plan should list specific tasks and any options or alternatives. A Gantt chart containing the key tasks, milestones, meetings, presentations, sequence and duration of each task as well as the personnel assigned to each task and their anticipated number of hours devoted to each task.
- c)** Demonstrated experience working with municipalities or companies on similar projects. A list of these relevant projects completed, sample documents and the names and contact information of three references who can speak to the quality of the work performed.
- d)** Identify the key contacts for the project and all personnel and sub-contractors who will be assigned to work on this project, including a description of their relevant qualifications and experience.
- e)** Identify any Town staff or other resource support and/or additional information the Proponent will seek to complete the RFP components.
- f)** Proposed budget and breakdown of costs and expenses related to the project. A charge out rate list for all Proponent staff and relevant sub-contractors is required complete with their assigned tasks and hours devoted as per b) above.

2.4 Project Deliverables

The successful proponent shall be responsible for submitting the following project deliverables:

- a)** The submission of the four (4) development schemes in-keeping with this RFP and its Scope of Work with an Adobe PDF (300dpi) electronic copy as well as a Word Document if required or otherwise deemed appropriate by the proponent.
- b)** All designs, drawings, illustrations, and plans must be submitted in the original software that they were created as well as JPEG or GIF format and all maps submitted in an ArcGIS format.
- c)** All pictures and photographs must be dated and captioned with the location and brief description of the activity being documented. Electronic data for all pictures and photographs must be submitted in JPEG or GIF format.

REQUEST FOR PROPOSALS
Upper King Street Extension Development

d) A draft restrictive covenant or other means, such as, but not restricted to, an Agreement for each of the four (4) development schemes as a means of ensuring any prospective purchaser will be legally required to fulfill the development scheme as presented.

The successful proponent will be responsible for providing all necessary materials including drafts and other materials for review. All materials to be provided to Town staff in electronic format. All documents shall become the property of the Town.

3.0 PROPOSAL FORM

NAME OF PROPONENT: _____

Do not include HST in the Amount of Proposal. All of the below pricing is to be in Canadian Dollars.

Amount of Proposal..... \$ _____

HST..... \$ _____

Total..... \$ _____

Please attach the following additional information:

- Start and end time required to complete the work.
- Two relevant work references and contact phone numbers.

Mailing Address _____

Phone Number _____

Email Address _____

Signature _____

Print Name & Title _____

Date _____

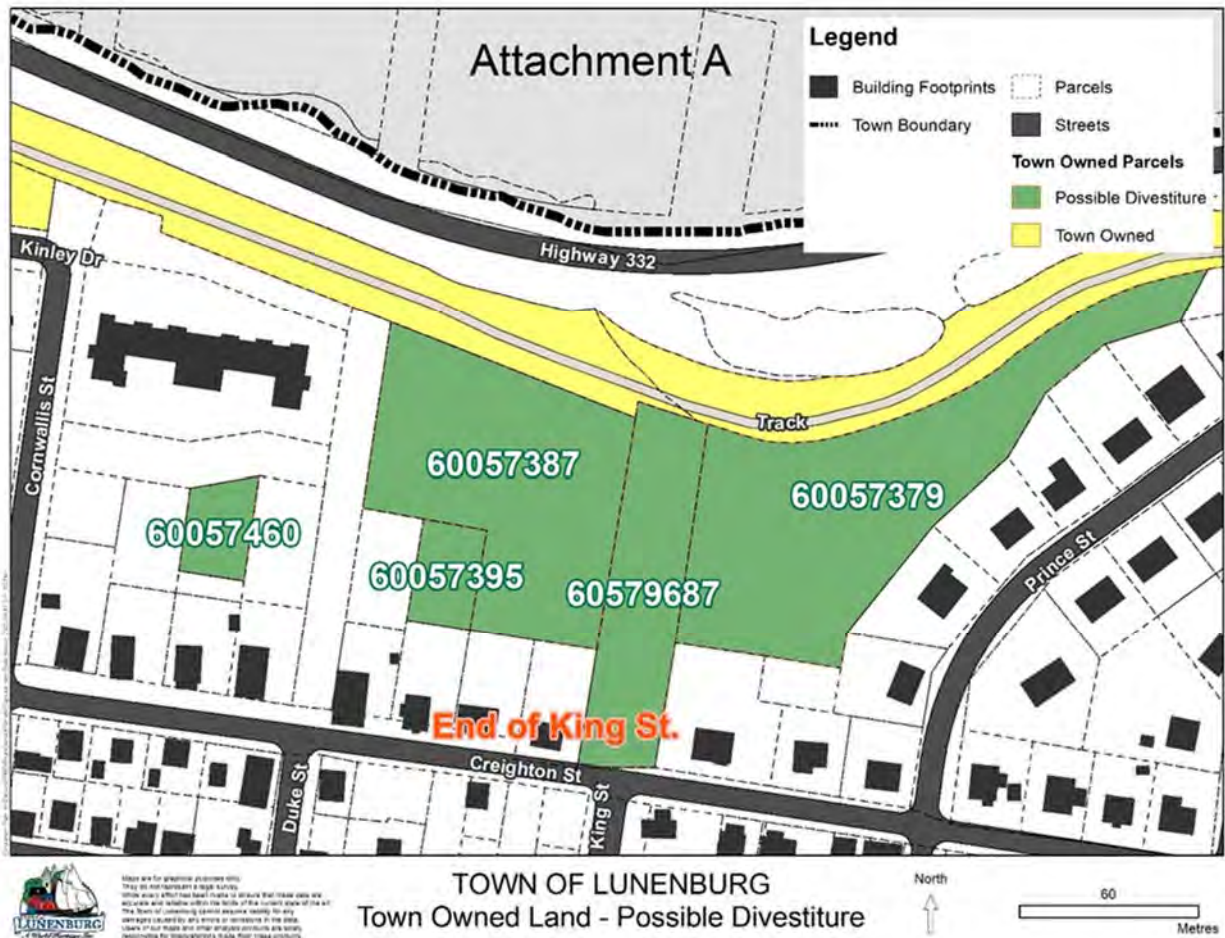
Witness _____

Date _____

Details of Proposal – please attach your submission details as required in this RFP.

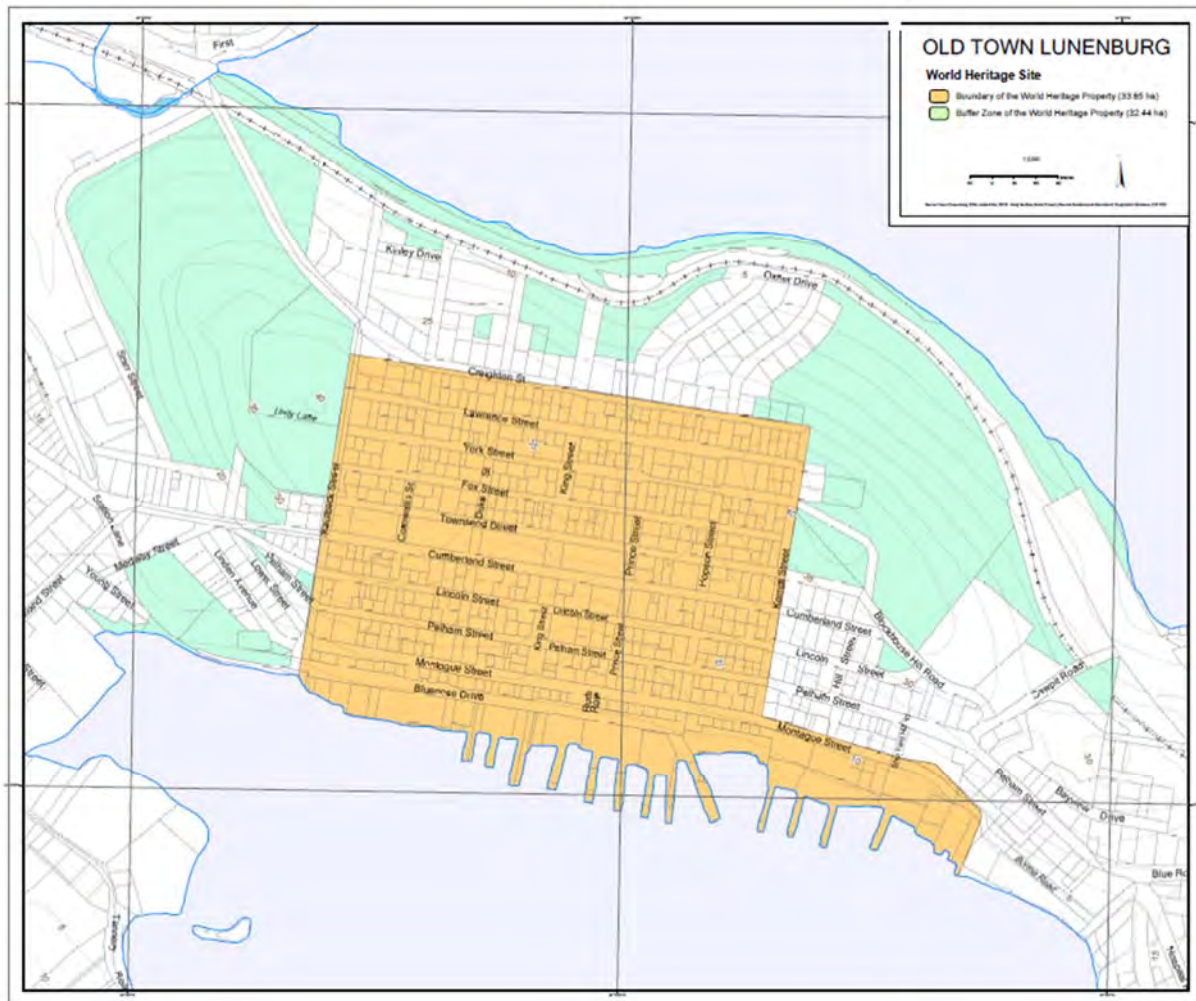
4.0 APPENDICES

**Appendix "A" - Map of PID 60057387, PID 60057379, PID 60057460,
PID 60057395 and Upper King Street Extension - portion of PID 60579687**



REQUEST FOR PROPOSALS
Upper King Street Extension Development

Appendix “B” - World Heritage Site Map with Buffer



Appendix “C” - World Heritage Site – Outstanding Universal Value’s

Old Town Lunenburg

Lunenburg is the best surviving example of a planned British colonial settlement in North America. Established in 1753, it has retained its original layout and overall appearance, based on a rectangular grid pattern drawn up in the home country. The inhabitants have managed to safeguard the city's identity throughout the centuries by preserving the wooden architecture of the houses, some of which date from the 18th century.

Outstanding Universal Value

Brief synthesis

Old Town Lunenburg is the best surviving example of a planned British colonial settlement in North America. Established in 1753, it has retained its original layout and overall appearance, based on a rectangular grid pattern drawn up in the home country. The inhabitants have safeguarded the town's identity throughout the centuries by preserving the wooden architecture of the houses and public buildings, some of which date from the 18th century and constitute an excellent example of a sustained vernacular architectural tradition. Its economic basis has traditionally been the offshore Atlantic fishery, the future of which is highly questionable at the present time.

Criterion (iv): Old Town Lunenburg is a well-preserved example of 18th century British colonial urban planning, which has undergone no significant changes since its foundation, and which largely continues to fulfil the economic and social purposes for which it was designed. Of special importance is its diversified and well-preserved vernacular architectural tradition, which spans over 250 years.

Criterion (v): Old Town Lunenburg is an excellent example of an urban community and culture designed for and based on the offshore Atlantic fishery which is undergoing irreversible change and is evolving in a form that cannot yet be fully defined.

Integrity

Within the boundaries of the 33 ha property are located all the elements necessary to express the Outstanding Universal Value of Old Town Lunenburg. The property encompasses the intact original town plan in its entirety, missing only the fortifications that surrounded the town in its early years, but of which there are no surviving above-ground remains. Its boundaries adequately ensure the complete representation of the features and processes that convey the property's significance, and there is a 48.72 ha buffer zone. The property does not suffer unduly from adverse effects of development and/or neglect.

Authenticity

Old Town Lunenburg is authentic in location and setting, forms and designs, materials and substances, and uses and functions. The original British colonial town plan remains

REQUEST FOR PROPOSALS

Upper King Street Extension Development

evident, including the regular layout of property parcels in a grid pattern with geometrically regular streets, central public spaces, and key community structures, with a functioning waterfront as its focus. In terms of forms and materials, there is a harmony of scale, siting and materials (predominantly wood) throughout the property, and a regional architectural vocabulary that includes the 'Lunenburg bump', an indigenous five-sided dormer. While a continuing vernacular architectural tradition is integral to the property's Outstanding Universal Value, there has been very limited infill in the modern era. Many of the property's historic uses and functions survive.

Most of the recent changes to the property are renovations to specific buildings, some of which have better conveyed the heritage value of Old Town Lunenburg than others. Due to long-term economic circumstances, there are also ongoing pressures on property owners in terms of rising property values, maintenance costs, and the challenges of retaining historical accuracy in restoration planning.

Protection and management requirements

Old Town Lunenburg, which is almost entirely in private ownership, is commemorated by the Government of Canada as a National Historic Site (1991) and protected under two key pieces of provincial legislation, the Municipal Government Act (1998) and the Heritage Property Act (1989), which enable the municipality to create, respectively, land-use and heritage bylaws. In this context, the municipality adopted the Heritage Conservation District Plan, Bylaw and Guidelines in 2000 (consolidated in 2001). In order to better manage the community as a World Heritage property and ensure the continuing protection of the town's heritage resources, the Town of Lunenburg Heritage Sustainability Strategy (2010) has been developed to guide its development, including the identification of heritage, culture and tourism prospects that may produce economic opportunities for the community.

Sustaining the Outstanding Universal Value of the property over time will require managing, to the degree possible, ongoing pressures on property owners related to rising property values, maintenance costs, and the challenges of retaining historical accuracy in restoration planning. It will also require developing and implementing mechanisms to encourage building renovations that fully respect the heritage value of Old Town Lunenburg. Special attention will be given over the long term to monitoring and taking appropriate actions related to a number of factors in and near the property. Specifically, these include the potential impacts of climate change, and the impacts of tourism and visitation.

Appendix “D” – National Historic Site – Statement of Significance

Lunenburg Old Town Heritage Conservation District

Old Town, Lunenburg, Nova Scotia, B0J, Canada
Formally Recognized: 2000/05/11



Lunenburg from Haulback Head



Aerial view of Lunenburg



Plan of Lunenburg

OTHER NAME(S)

- Lunenburg Old Town Heritage Conservation District
- Old Town Lunenburg

LISTED ON THE CANADIAN REGISTER: 2005/02/04

STATEMENT OF SIGNIFICANCE – DESCRIPTION OF HISTORIC PLACE

Lunenburg is located on the southwest coast of Nova Scotia. The Old Town Heritage Conservation District is located on a hilly peninsula between Lunenburg (Front) Harbour and the Back Harbour. The Heritage Conservation District includes waterfront and shipyard buildings, and continues north up the slope of the peninsula's hills, encompassing the downtown commercial district; the institutional area of the town, with a parade square, town hall, Anglican church, former courthouse and rectory; and the

REQUEST FOR PROPOSALS
Upper King Street Extension Development

private wood-construction homes to the north of the town centre. All streets in the Old Town run north-south and east-west on a grid.

HERITAGE VALUE

Lunenburg Old Town Heritage Conservation District is valued for its historical origins as a planned colonial town, for its well-preserved vernacular architecture, and as a longstanding centre for marine-related industries and the culture that surrounds them. Established in 1753 by the British as a colonial town for over 1,400 mostly German-speaking Protestant German, Swiss and Montbéliardian French colonists, Old Town Lunenburg has retained its original layout and overall appearance, based on the rectangular grid pattern commonly used in colonial planning of its era. The townsite, true to then-current convention, consisted of seven north-south streets, 48 feet wide (with the exception of King Street, which is 80 feet), intersected at right angles by nine east-west streets, each 40 feet wide, creating blocks that were further divided into 14 lots of 40 by 60 feet each. As well, different sections of the town were set aside for industrial use (the blocks closest to the harbour); commercial use (to the north of the waterfront); and institutional use, such as the parade square, the courthouse and Anglican Church (the central blocks in the Old Town). Each immigrating family received one town lot, drawn from playing cards. The London-based Board of Trade and Plantations developed the plans without regard to local topography, resulting in Lunenburg's unusually straight but very steep streets. There are approximately 400 major buildings within the old town, most of them dating from the 18th and 19th centuries, almost all of them wood, and many with colourfully painted exteriors and trims.

The Old Town Heritage Conservation District also includes many waterfront warehouses and outbuildings, reflecting Lunenburg's long tradition of economic dependence on both the shipbuilding and fishing industries. While these industries have grown smaller in Lunenburg, they are still of vital importance, and the industrial area has many shops specializing in marine-related crafts. Lunenburg is also home to the iconic schooners "Bluenose" and the "Bluenose II," both built in a shipyard within the Old Town Heritage Conservation District.

Lunenburg is the best surviving example of a planned British colonial settlement in North America. The inhabitants have managed to safeguard the town's identity and their German heritage throughout the centuries by preserving the wooden architecture of their homes and commercial buildings. One unique regional architectural feature is the "Lunenburg Bump:" a projection traditionally located on the centre of the front façade, and comprised of a large, extended, overhanging dormer, usually of the five-sided Scottish style, and seen throughout the Heritage Conservation District on many homes. By the end of the nineteenth century the local architectural tradition, including Bumps, had reached a level of complexity and variation that reflected the social cohesion and growing prosperity of Lunenburg society. Eventually this growth also resulted in new development, mainly to the west, in an area given the name 'New Town'.

Source: Heritage Conservation District Plan and By-law with Design Guidelines, 2001, found in Town of Lunenburg Heritage Files, no. 62.

CHARACTER-DEFINING ELEMENTS

The Lunenburg Old Town Heritage Conservation District has many defining elements that relate to its value as a well-preserved planned colonial town, an area of architectural interest and an important centre for marine-related industries, including:

- The dense concentration of historic architecture, seen in the 403 buildings of the Old Town, ranging in age from the eighteenth to early twentieth century, and creating cohesive streetscapes. The main types of buildings include waterfront industrial buildings in the Maritime Vernacular warehouse style, commercial buildings in the late Victorian and Edwardian styles, and a variety of homes in Georgian, Cape Cod, Gothic Revival, Classical Revival and Second Empire styles, accentuated with vernacular architectural elements;
- All elements that are typical of a longstanding building tradition particular to the Lunenburg area, including the sturdy wooden construction of the majority of the buildings, with clapboard or shingle cladding and wooden trim elements. The most noticeable vernacular building element in Lunenburg is the "Lunenburg Bump:" an enlarged dormer extended out over the eaves, either five-sided or rectangular. Most are situated in the centre of the front façade over the entrance, which may be in an attached storm porch. Decorative elements include complex dormer roofs (from bellcast to triple-tiered varieties), bracketry, panelling and fretwork, gablets on the dormers, cornices and window ornamentation;
- All elements of the town's still preserved original form, which is based on eighteenth century colonial planning theory: using a very specific rectangular grid form layout of seven north-south streets, 48 feet wide (with the exception of King Street, which is 80 feet), intersected at right angles by nine east-west streets, each 40 feet wide, and with each block divided into 40 foot by 60 foot lots. The geometrically regular streets have most buildings close to the street line, public spaces in the centre of town and a well-defined distinction between urban and non-urban areas;
- The distinction between the industrial, commercial, institutional and residential areas of the Old Town, reflecting the original town plans. In particular, the layout and use of the institutional area of the Old Town, in its geographic centre. The buildings in this area include (from west to east) Saint John's Anglican Church building and open space surrounding the building, the old fire hall and electric lights building, town hall with park space to either side, the open park space to the east of town hall including war memorials, a heritage bandstand and the King Street right-of-way, and the Armouries site (now the Town of Lunenburg Public Works Department) at the far eastern end. The land between the Armouries and Prince Street were sold in 1894 and are now private lots with houses;
- All original elements reflecting the fishing and shipbuilding industries, especially the inter-related warehouses and wharves, the marine railway, outbuildings, parking and loading areas, all located on or close to the waterfront. Also, all elements contributing

REQUEST FOR PROPOSALS
Upper King Street Extension Development

to the visual character and related harbour views of the area, without constricting its function;

- Elements used by the town in the protection of the district such as former cannons put in place at corners to slow carriage traffic, significant trees located in public areas, monuments, and outbuildings considered to add value to the surrounding streetscape.

RECOGNITION JURISDICTION

Nova Scotia

RECOGNITION AUTHORITY

Local Governments (NS)

RECOGNITION STATUTE

Heritage Property Act

RECOGNITION TYPE

Heritage Conservation District

RECOGNITION DATE

2000/05/11

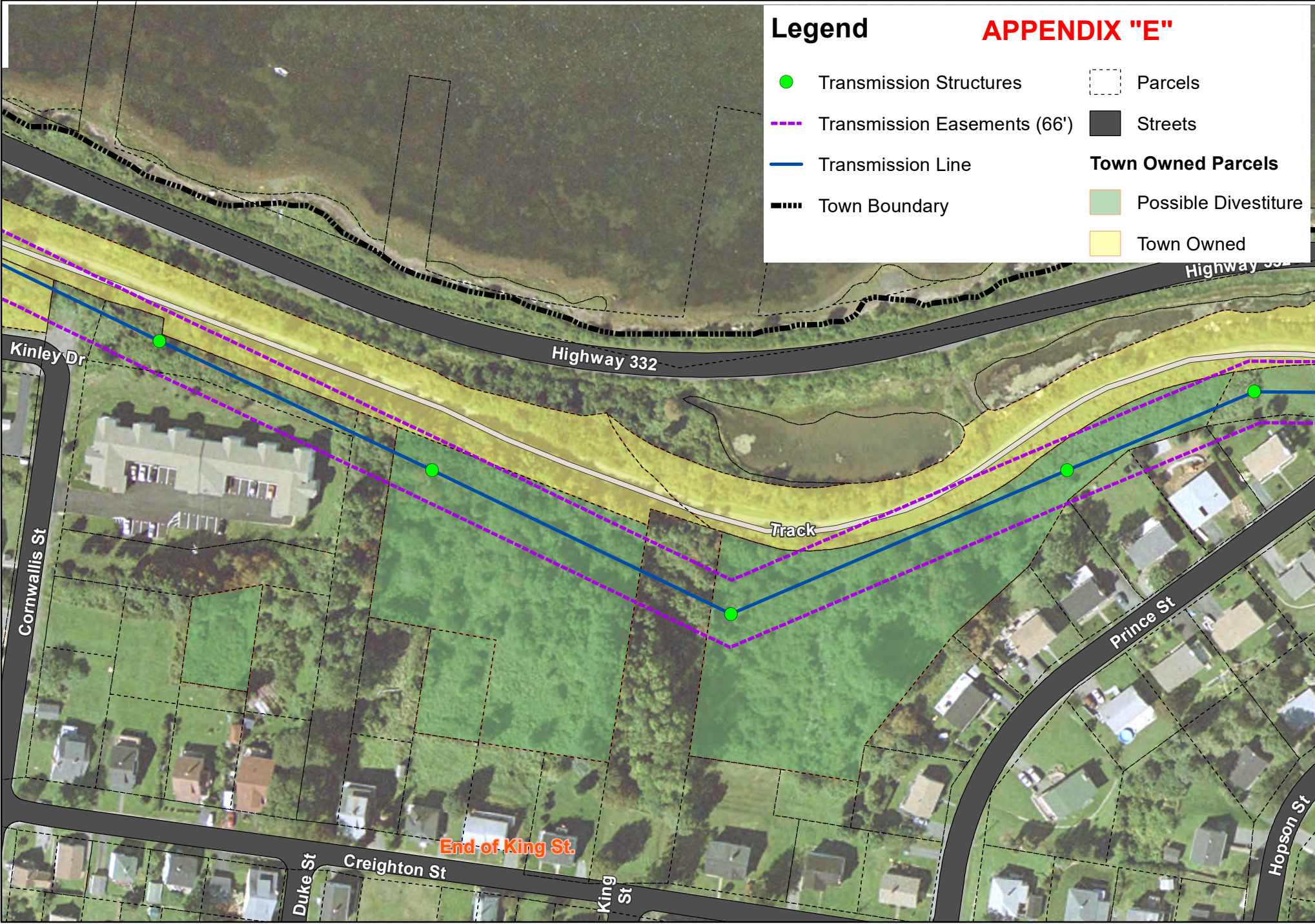
HISTORICAL INFORMATION – SIGNIFICANT DATE(S)

1753/01/01 to 1940/01/01

THEME - CATEGORY AND TYPE

Developing Economies
Trade and Commerce
Expressing Intellectual and Cultural Life
Architecture and Design
Peopling the Land
Settlement

Document Path: H:\Data\NSPFD\TownOwned\ParcelDisposalElec.mxd Date Saved: 2022-05-16 11:30:37 AM



Document No:
Meeting: Council Sept.13/22
Circulate to:
File: Budget 2021/22

MEMORANDUM

TO: TOWN COUNCIL

FROM: LISA DAGLEY, CPA, CGA - FINANCE DIRECTOR

DATE: AUGUST 25, 2022

**RE: ELECTRIC UTILITY OPERATING YEAR END AND CAPITAL FUNDING
MARCH 31, 2022**

1. FACTS

Finance staff have completed the Electric Utility's year-end and our auditors have completed their audit field work. The Electric Utility's draft unaudited financial statements have been completed and an Audit Committee meeting is scheduled for September 28, 2022.

2. ISSUES AND OPTIONS ANALYSIS

For the fiscal year ended March 31, 2022 the Electric Utility had a surplus before any reserve transfers of \$173,208. As a result Finance Staff are recommending a reserve transfer of \$173,000 for future capital be approved. After the transfer the Electric Utility will have a modest surplus of \$208 for the year and the retained earnings will close at \$470,014 which is sufficient for the operating financial health of the Electric Utility. (Schedule 1)

The Electric Utility's capital expenditures of \$514,442 (Schedule 2) are funded 100% from available depreciation funds, net of customer contributions of \$47,437. All completed capital expenditures were budgeted to be funded from depreciation reserves.

3. FINANCIAL IMPACT

As per above.

4. STRATEGIC PLAN RELEVANCE

Servicing and Facilities: Direction to ensure efficient infrastructure, and that municipal facilities are properly managed and maintained for future use.

5. RECOMMENDATION AND DRAFT MOTION

Recommend approval of the draft motion.

Draft Motion:

Moved and seconded that for the fiscal year ended March 31, 2022 the Electric Utility transfer \$173,000 to its Future Capital Reserve.

Attachments - 2

Acknowledged only by:

Jamie Doyle
CAO

TOWN OF LUNENBURG
ELECTRIC UTILITY
STATEMENT OF OPERATIONS
YEAR ENDED MARCH 31, 2022

DRAFT

	2022		
	Budget	Actual	Variance
Operating Revenue			
Residential, commercial and Industrial electric energy sales	6,546,500	6,574,578	(28,078)
Street lighting - town and others	128,000	133,531	(5,531)
Customers' late charges	32,000	36,974	(4,974)
Miscellaneous	27,600	27,620	(20)
	6,734,100	6,772,703	(38,603)
Operating Expenditure			
Power purchased	5,248,700	5,289,354	(40,654)
Substations	69,300	44,652	24,648
Transmission and distribution	468,400	346,907	121,493
Administration and general	665,700	617,541	48,159
Depreciation	184,500	214,592	(30,092)
	6,636,600	6,513,046	123,554
Net Operating Revenue	97,500	259,657	(162,157)
Non-operating Revenue			
Interest earned	5,000	4,992	8
Miscellaneous	25,000	24,345	655
Expired Deposits & Other Settlements	-	5,216	(5,216)
	30,000	34,553	(4,553)
Non-operating Expenditure			
Interest on long-term debt	27,500	21,002	6,498
Principal repayments	100,000	100,000	-
Transfer to capital reserve	-	173,000	(173,000)
	127,500	294,002	(166,502)
Net Non-Operating Revenue (Expenditure)	(97,500)	(259,449)	161,949
Excess of revenue over expenditures	-	208	(208)
Surplus, beginning of year		469,806	
Surplus, end of year		\$ 470,014	

Capital Status Report for the Year Ended March 31, 202

ELECTRIC
UTILITY

Project

Budget

YTD Actual

Under/(Over)
Budget

Structures			
Capacitor Banks on Distribution System <i>Comment:</i> CF Project from fiscal 20-21. Equipment installation completed in October 2022. Success of project continues to be monitored however based on the winter ratchet period of fiscal 21-22 savings were achieved. A new ratchet was recorded and despite this additional cost of \$28,500 the sales to power costs margin improved by 0.5% in fiscal 21-22.	\$100,000	\$80,644	\$19,356
Capacitor Banks on Distribution System <i>Comment:</i> CF Project from fiscal 19-20 & 20-21. There were two transfer buses that needed to be installed for our two different circuit systems. Covid working restrictions slowed the progress of these installations, however the 3300 system bus was completed in fiscal 20-21 at a cost of \$31,347 and the 2400 system was completed in fiscal 21-22 at cost of \$32,616 for a total project cost of \$63,963.	\$50,600	\$32,616	\$17,984
Solar Assessment Study <i>Comment:</i> Staff report at August 9, 2022 Council meeting provided report findings. Cost of report was \$9,398 and has been expended in the operations budget.	\$16,800	\$0	\$16,800
Substation Recloser <i>Comment:</i> Service provided NSP have incorporated into another project for the substation.	\$47,000	\$0	\$47,000
Utility Line Work			
Meters <i>Comment:</i> No capital quantity of meters required in fiscal 21-22.	\$10,000	\$0	\$10,000
Overhead Conductors <i>Comment:</i> As required for new construction and maintenance. Includes customer requested changes, a portion of which is cost recovered. Utility's cost = \$100,090, customer recoveries = \$47,437	\$187,500	\$147,527	\$39,973
Poles & Fixtures <i>Comment:</i> As required for new construction and maintenance.	\$75,000	\$63,843	\$11,157
Services <i>Comment:</i> As required, higher than anticipated construction activity. Overage offset but savings in other capital budget categories.	\$37,500	\$41,200	(\$3,700)
Street Lighting <i>Comment:</i> As required for new construction and maintenance.	\$30,000	\$5,753	\$24,247
Transformers - Line <i>Comment:</i> As required, higher than anticipated construction activity. Overage offset but savings in other capital budget categories.	\$105,000	\$116,011	(\$11,011)

Capital Status Report for the Year Ended March 31, 202

ELECTRIC
UTILITY

Project

Budget

YTD Actual

Under/(Over)
Budget

LED Street Lighting Assessment <i>Comment:</i> Carried forward to fiscal 22-23 as majority of study completed in that year. LED Street light conversion project required to be completed by December 31, 2022 current plans are for work to be carried out in the fall of 2022.	\$15,000	\$0	\$15,000
Distribution System Review <i>Comment:</i> Project will span both fiscal 21-22 & 22-23. Final report received in June 2022.	\$50,000	\$26,849	\$23,151

Total Capital Expenditures

\$514,442

Capital funding from Depreciation Reserves less
Customer cost recoveries

\$467,005

Balance in Depreciation Reserve after year-end capital funding \$469,810.

Document No:
Meeting: Council Sept.13/22
Circulate to:
File: Budget 2021/22

M E M O R A N D U M

TO: TOWN COUNCIL

FROM: LISA DAGLEY, CPA, CGA - FINANCE DIRECTOR

DATE: AUGUST 25, 2022

**RE: TOWN GENERAL OPERATING YEAR END AND CAPITAL FUNDING
FOR MARCH 31, 2022**

1. FACTS

Finance staff have completed the Town's year-end and our auditors have completed their audit field work. Town Council is asked to approve the final proposed funding of the capital assets for the year ended March 31, 2022 as there are some proposed changes to the budgeted funding which have been incorporated in the draft financial statements. There is an Audit Committee meeting scheduled for September 28, 2022.

2. ISSUES AND OPTIONS ANALYSIS

Capital projects in the amount of \$816,010 were completed in 21/22. Attached is a summary (Schedule 1) of the proposed funding of these assets. The funding of the Capital projects does not require debt financing from the Municipal Finance Corp.

Fiscal 21/22 continued to have challenges due to the Covid-19 pandemic, however with prudent budgeting, careful department fiscal management and Safe Restart Funding the Town ended the fiscal year with additional funds available for reserve transfer. Schedule 2 outlines the additional reserve transfers staff are recommending.

After the above noted reserve transfers and funding the capital projects there is still a small surplus of \$2,893. (Schedule 3)

The year end balances for both the Operating and Capital Reserves are included as schedules to this report.

3. FINANCIAL IMPACT

As per above and the attached funding proposal.

4. STRATEGIC PLAN RELEVANCE

Servicing and Facilities: Direction to ensure efficient infrastructure, and that municipal facilities are properly managed and maintained for future use.

5. RECOMMENDATION AND DRAFT MOTION

It is recommended that Council approve the following draft motions.

Draft Motions:

Moved and seconded to approve the Capital financing for fiscal 2021-22 as outlined in Schedule 1;

-and-

Moved and seconded to approved the additional Operating and Capital Reserve Transfers for fiscal 2022/21outlined in Schedule 2.

Attachments - 5

Acknowledged only by:

Jamie Doyle
CAO

Town of Lunenburg - General Capital Funding 21-22			Capital from										
	Budget	Actual	Revenue	PCAP Grant	Deed Transfer	Capital Reserve	Fire Dept Dept.	Recreation Reserve	Gas Tax Fund	PC Borrowing	Public Works Equip Reserve	Donations	Provincial Rec Grant
TOWN HALL - SECURITY SYSTEM UPGRADE	10,000	10,446.45			10,446.45								
Budgeted funding: Deed Transfer Taxes													
TOWN HALL - RETAINING WALL	10,000	9,229.31			9,229.31								
Budgeted funding: Deed Transfer Taxes													
TURNOUT GEAR DRYER	9,700	7,090.40					7,090.40						
Budgeted funding: Fire Dept 100%													
FIRE HALL BAY DOOR CONCRETE APRON REPLACEMENT	55,000	11,722.41			11,722.41								
Budgeted funding: Deed Transfer Taxes													
SKATE PARK	60,000	59,521.50						39,521.50				2,500.00	17,500.00
Budgeted funding: Provincial Grant \$20K and Recreation Reserve \$40K													
RECREATION - FLOOR SCRUBBER	7,500	5,699.44				5,699.44							
Budgeted funding: General Capital Reserves													
ICE RESURFACER (20/21 CF Project)	125,000	108,450.00	5,728.41			57,721.59						45,000.00	
Budgeted funding: Resurfacer Reserve, Grants, Donations & Capital from Revenue													
WWTP-RAILS & CATWALKS IN AERATION BUILDING (20/21 CF Project)	30,000	30,806.61			30,806.61								
Budgeted funding: Deed Transfer Taxes													
WWTP-IMPROVE TREATMENT PROCESS (20/21 CF Project)	270,000	255,975.55		136,391.65	119,583.90								
Budgeted funding: PCAP grant & Gas Tax													
LIFT STATIONS CAPITAL PUMP REPAIRS (20/21 CF Project)	79,655	12,080.12							12,080.12				
Budgeted funding: Gas Tax													
RAW SLUDGE PUMPS (2) (20/21 CF Project)	50,000	32,720.37							32,720.37				
Budgeted funding: Gas Tax													
FLOWMETER INSTALLATION PROGRAM (20/21 CF Project)	66,000	69,235.47							69,235.47				
Budgeted funding: Gas Tax													
NEW SEWER MAIN ON ARCHIBALD STREET	50,000	24,136.28			24,136.28								
Budgeted funding: Deed Transfer Taxes													
UPGRADE COMMUNICATION SYSTEMS TO PUMPING STATIONS - Phase I	40,000	33,544.25							33,544.25				
Budgeted funding: Gas Tax													
LIFT STATIONS CAPITAL PUMP SPARES	45,000	33,522.99							33,522.99				
Budgeted funding: Gas Tax													
LIFT STATION PRESSURE GAUGES	20,000	7,799.26							7,799.26				
Budgeted funding: Gas Tax													
LIFT STATION OVERFLOW METER	10,000	4,192.85							4,192.85				
Budgeted funding: Gas Tax													
WWTP-COMPRESSOR OVERHAUL	5,000	4,075.53				4,075.53							
Budgeted funding: General Capital Reserves													
WWTP - ROOF TOP AIR CONDITIONER	15,000	10,252.36			10,252.36								
Budgeted funding: Deed Transfer Taxes													
TANNERY ROAD - SEAWALL REPLACEMENT (20/21 CF Project)	12,464	10,232.39			10,232.39								
Budgeted funding: Deed Transfer Taxes													
REPLACEMENT FOR CEMETERY BACKHOE	55,000	46,920.95								46,920.95			
Budgeted funding: Cemetery PC Borrowing													
TRACKLESS PLOW BLADE (90)	10,000	8,186.45									8,186.45		
Budgeted funding: PW Equipment Reserve													
SALT SPREADER TRACKLESS (90)	10,000	8,337.67									8,337.67		
Budgeted funding: PW Equipment Reserve													
POWER CONCRETE SCREED	3,200	2,711.44									2,711.44		
Budgeted funding: PW Equipment Reserve													
SPEED RADAR SIGN #2	3,500	3,542.49									3,542.49		
Budgeted funding: PW Equipment Reserve													
CONCRETE FORMS	5,000	5,577.28									5577.28		
Budgeted funding: PW Equipment Reserve													
		816,009.82	5,728.41	136,391.65	226,409.71	67,496.56	7,090.40	39,521.50	193,095.31	46,920.95	28,355.33	47,500.00	17,500.00

Town Fiscal 21-22 Additional Reserve Transfer Recommendations	
Operating Reserve (Additional Town Foundation Grant received from Prov of NS)	\$50,000
Operating Reserve - Funds projected for balance of Heritage Bylaw Review costs to align with CCP	\$20,400
Operating Reserve - Council Chamber audio/visual improvements (completed early in fiscal 22-23)	\$20,762
Operating Reserve - Parks General (Federal Under 30 Mentoring Grant)	\$4,000
Capital Reserve - Skate Park (Federal Under 30 Mentoring Grant)	\$10,000
Capital Reserve - Deed Transfer Tax (Balance of Operating Budget over Revenue estimate - see summary below)	\$39,241
General Operating Reserve 21-22 transfer	\$202,000
	<u>\$346,403</u>
Deed Transfer Taxes Summary	
Actual 0.5% Revenue Received	\$119,241
0.5% Operating Budget	\$80,000
Difference - recommend transfer to Capital Reserve	<u>\$39,241</u>

TOWN OF LUNENBURG
GENERAL SECTION
STATEMENT OF OPERATIONS
YEAR ENDED MARCH 31, 2022

DRAFT

	2022		
	Budget	Actual	Variance
REVENUE			
Taxes	\$ 6,279,400	\$ 6,609,000	\$ (329,600)
Grants in lieu of taxes	268,500	269,278	(778)
Sales of services	381,300	462,627	(81,327)
Other revenue from own sources	352,600	398,897	(46,297)
Unconditional transfers from other governments	72,100	120,067	(47,967)
Conditional transfers from Federal and Provincial governments and agencies	1,800	103,224	(101,424)
Conditional transfers from other local governments	184,200	164,209	19,991
Other transfers	205,000	135,987	69,013
	7,744,900	8,263,289	(518,389)
EXPENDITURE			
General government services	600,900	542,988	57,912
Protective services	1,666,100	1,600,229	65,871
Transportation services	1,027,500	1,079,907	(52,407)
Environmental health services	1,407,000	1,352,044	54,956
Public Health services	51,100	40,337	10,763
Environmental development services	585,200	566,738	18,462
Recreational and cultural services	798,700	807,085	(8,385)
Fiscal services	1,608,400	2,271,068	(662,668)
	7,744,900	8,260,396	(515,496)
EXCESS OF EXPENDITURE OVER REVENUE	-	2,893	(2,893)
Accumultated Surplus, Beginning of Year		1,091	
Transfer of Surplus to Operating Reserve		(1,091)	
SURPLUS, END OF YEAR		\$ 2,893	

TOWN OF LUNENBURG
SUPPLEMENTARY FINANCIAL INFORMATION
GENERAL SECTION
SCHEDULES TO STATEMENT OF OPERATIONS
YEAR ENDED MARCH 31, 2022

DRAFT

		2022
1. Taxes		
Assessable property		
Residential	\$	3,377,983
Commercial		1,518,949
Resource		10,352
		4,907,284
Business property		
Based on Revenue (Aliant)		17,511
		17,511
Other		
Sewer annual charge		1,118,454
Deed Transfer tax		565,751
		1,684,205
	\$	6,609,000
2. Grants in lieu of taxes		
Provincial government (DNR)	\$	230,125
Property of supported institutions (TIR)		637
Sewer		33,497
Fire Protection (Museum)		5,019
	\$	269,278
3. Sales of services		
Parking meters	\$	93,084
Transportation services		43,127
Miscellaneous		64,219
		200,430
Recreational services		
Admissions		23,531
Rentals and concessions		162,140
Rentals - School Board		31,556
Grants		40,000
Sundry		4,970
		262,197
	\$	462,627

TOWN OF LUNENBURG
SUPPLEMENTARY FINANCIAL INFORMATION
GENERAL SECTION
SCHEDULES TO STATEMENT OF OPERATIONS
YEAR ENDED MARCH 31, 2022

DRAFT

	2022
4. Other revenues from own sources	
Licenses and permits	\$ 20,393
Fines	2,780
Rentals	307,237
Interest on investments	14,917
Interest on taxes	51,408
Insurance Settlements	-
Miscellaneous including donations	2,162
	\$ 398,897
5. Unconditional transfers from other governments	
HST Offset Grant	\$ 19,957
Equalization Grant	100,000
Farm Acreage	110
	\$ 120,067
6. Conditional transfers from Federal and Provincial Government and Agencies	
Federal government	
Canada Day Grant	\$750
Mentorship Program Funding	14,000
Safe Restart Funds	85,974
Provincial governments and agencies	
Communities, Culture, Tourism and Heritage	1,500
Active Transportation Strategic Plan Grant	-
Emergency Measures Organization	1,000
	\$ 103,224
7. Conditional transfers from other local governments	
Municipal Fire District 1 and 2 Commission	
Fire protection reimbursements	\$ 164,209
SSRSB Election Costs	-
	164,209
8. OTHER TRANSFERS	
Prior Years Surplus	\$ 1,092
Transfer from Operating , Water & Capital Reserves	134,895
	\$ 135,987

TOWN OF LUNENBURG
SUPPLEMENTARY FINANCIAL INFORMATION
GENERAL SECTION
SCHEDULES TO STATEMENT OF OPERATIONS
YEAR ENDED MARCH 31, 2022

DRAFT

	2022
9. General government services	
Legislative	
Mayor	
Stipend	\$ 9,107
Councillors	
Stipend	29,666
Travel	-
Other legislative services	14,848
	53,621
General administrative	
Salaries and benefits	201,539
Office buildings	66,862
Legal and other professional services	54,219
Financial management	32,517
Interest on Capital Loan	378
Tax rebates or exemptions (low income)	3,000
Tax exemptions (Section 71 MGA)	34,643
Transfer to Assessment Services	47,826
Valuation allowance uncollectible taxes and miscellaneous receivables	-
Other general administrative services	14,642
	455,626
Other general government	
Election costs	-
Insurance	8,071
Grants to organizations and individuals	19,750
Other general services	5,920
	33,741
	\$ 542,988
10. Protective services	
Police Protection	
RCMP	\$ 858,212
By-Law Enforcement	
Contracted Services	-
Legal	5,510
Supplies and expense	-
Transfer to Correction Service	41,554
	47,064

TOWN OF LUNENBURG
SUPPLEMENTARY FINANCIAL INFORMATION
GENERAL SECTION
SCHEDULES TO STATEMENT OF OPERATIONS
YEAR ENDED MARCH 31, 2022

DRAFT

	2022
10. Protective services (cont'd)	
Fire protection	
Fire fighting force	116,564
Water supply and hydrants	330,815
Training	11,941
Fire stations and buildings	73,573
Fire fighting equipment	100,278
Other	24,804
	657,975
Emergency Measures Organization	9,317
Other	
Building Inspector and other	27,661
	\$ 1,600,229
11. Transportation services	
Common services	
Administrative	\$ 175,421
General equipment	143,836
Small tools and equipment	5,460
Workshop, yards and other buildings	13,763
Workers' compensation	13,811
	352,291
Roads and streets	
Labour	267,125
Supplies	49,826
Street cleaning	19,685
Snow and ice control	154,060
Street and sidewalk maintenance	62,800
Interest on loans	22,354
Street lighting	120,442
Traffic services	10,756
Parking Meters	20,568
	727,616
	\$ 1,079,907

TOWN OF LUNENBURG
SUPPLEMENTARY FINANCIAL INFORMATION
GENERAL SECTION
SCHEDULES TO STATEMENT OF OPERATIONS
YEAR ENDED MARCH 31, 2022

DRAFT

	2022
12. Environmental health services	
Transfer to Capital Reserve for Solid Waste	
Landfill Closure/post closure costs	\$ -
Solid Waste Landfill costs	158,531
	158,531
Sewage collection and disposal	
Labour, benefits and supplies	155,828
Sewer lift stations	137,054
Sewage treatment plant	655,945
Interest on sewer loans	22,492
	971,319
Garbage and waste collection and disposal	
Collection contract and other	222,194
Interest on waste disposal loans	-
	222,194
	\$ 1,352,044
13 Public Health Services	
Public Health	
Cemetery	\$ 13,827
Housing	
Deficit of Regional Housing Authority	26,510
	\$ 40,337
14. Environmental development services	
Environmental planning and zoning	
Salaries and benefits	\$ 121,806
Advertising and other	5,814
Legal/Consulting Fees	61,163
	188,783
Community development	
Old Fire Hall	29,335
CNR station	22,602
Lunenburg Academy	223,272
Annex - 17 Tannery Road	17,579
Economic Development/Tourism - General	60,933
Strategic Planning	-
Communications	10,571
Visitors service centre	13,663
	377,955
	\$ 566,738

TOWN OF LUNENBURG
SUPPLEMENTARY FINANCIAL STATEMENTS
GENERAL SECTION
SCHEDULES TO STATEMENT OF OPERATIONS
YEAR ENDED MARCH 31, 2022

DRAFT

2022

15. Recreational and cultural services and education

Recreational facilities

Recreation

Salaries, wages and benefits	\$	320,623
Administration		10,141
Maintenance - fields and grounds		3,736
Maintenance - community centre		33,655
Maintenance - arena		123,630
Small tools		-
Program costs		8,203
Parks and playgrounds		88,061
Interest on capital loans		8,994

597,043

Cultural buildings and facilities

Library - Local branch	49,395
Transfer to Regional Library	18,600
Heritage projects	136,305
Capt. Angus J. Walters House Museum	123
Other services and public celebrations	5,618

210,041

\$ 807,084

16. Fiscal services

Principal instalments

Interest on temporary borrowing	\$	-
Debenture principal		385,639
		385,639

Transfer to own reserves, funds and agencies

Reserve fund - operating reserve	392,244
Reserve fund - operating reserve safe restart	-
Reserve fund - capital reserve	607,208
General capital funds	-

999,452

Education

Appropriation to Regional School Board	885,976
--	---------

\$ 2,271,067

TOWN OF LUNENBURG
SUPPLEMENTARY FINANCIAL INFORMATION
OPERATING RESERVE FUNDS BALANCE SHEET
YEAR ENDED MARCH 31, 2022

DRAFT

	Streets, Sewers & Others	Recreation	Safe Restart	LAFF	Pro Kids	Operating Surplus Reserve	Region 6 Diversion Spec. Projects	2022
Balance, beginning	\$ 553,872	\$ 55,094	\$ 119,915	\$ 15,794	\$ 17,393	\$ 174,077	\$ 2,391	\$ 938,536
Donations	-	-	-	4,290	4,262	-		8,552
Interest	3,345	439	724	106	-	1,051	14	5,679
Contributions, other	-	21,500	-	-	-	-		21,500
Transfer from Town General	410,651	4,000	-	-	1,000	1,091	-	416,742
Transfer (to) Town General	(83,381)	(39,522)	(85,974)		(300)	-	-	(209,177)
Transfer, other	-	-	-	-	-	-	-	-
	330,615	(13,583)	(85,250)	4,396	4,962	2,142	14	243,297
Balance, ending	\$ 884,487	\$ 41,512	\$ 34,665	\$ 20,190	\$ 22,355	\$ 176,219	\$ 2,405	\$ 1,181,833

TOWN OF LUNENBURG
SUPPLEMENTARY FINANCIAL INFORMATION
STATEMENT OF CAPITAL RESERVE FUND
YEAR ENDED MARCH 31, 2022

DRAFT

	Solid Waste Site Closure	Other Equipment	Fire Equipment	Federal/Prov Gas Tax Funds	Provincial Capital Funds	Deed Transfer Tax	2022 Total
Balance, beginning	\$ 4,909	\$ 672,019	\$ 89,424	\$ 252,125	\$ 164,971	\$ 629,124	\$ 1,812,572
Donations	-	40,493	7,090	-	-	-	47,583
Interest	27	3,738	483	2,131	880	4,701	11,960
Sale of Lands and Equipment	-	700	-	-	-	-	700
Deed transfer tax	-	-	-	-	-	485,751	485,751
Conditional transfers from Provincial government	-	17,500	-	410,703	26,250	-	454,453
Transfer from Town General	-	39,099	82,357	-	-	-	121,456
Transfer to Town Capital	-	(166,583)	(7,090)	(193,095)	(136,392)	(226,410)	(729,570)
Transfer, other	(1,514)	-	-	-	-	-	(1,514)
	(1,487)	(65,053)	82,840	219,739	(109,262)	264,042	390,819
BALANCE, ENDING	\$ 3,422	\$ 606,966	\$ 172,264	\$ 471,864	\$ 55,709	\$ 893,166	\$ 2,203,391

Document No:
Meeting: Council Sept.13/22
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File: Budget 2021/22

MEMORANDUM

TO: TOWN COUNCIL

FROM: LISA DAGLEY, CPA, CGA - FINANCE DIRECTOR

DATE: AUGUST 25, 2022

**RE: WATER UTILITY OPERATING YEAR END AND CAPITAL FUNDING
FOR MARCH 31, 2022**

1. FACTS

Finance staff have completed the Water Utility's year-end and our auditors have completed their audit field work. The Water Utility's draft unaudited financial statements have been completed and an Audit Committee meeting is scheduled for Sept. 28, 2022.

2. ISSUES AND OPTIONS ANALYSIS

For the fiscal year ended March 31, 2022 the Water Utility had a surplus after budget reserve transfers of \$133,950. As a result Finance Staff are recommending a reserve transfer of \$25,000 for the Membrane Replacements and a \$83,445 transfer to Future Capital be approved. In addition staff are recommending the Water Utility dividend to the Town budgeted at \$25,000 be increased to \$50,000. After the reserve transfers and dividend the Water Utility will have a modest surplus of \$505 for the year and the retained earnings will close at \$253,687 which is sufficient for the operating financial health of the Water Utility. (Schedule 1).

The Water Utility completed \$108,432 of capital expenditures (Schedule 2). The capital expenditures have been funded from Depreciation Reserves as previously approved by Council.

3. FINANCIAL IMPACT

As per above.

4. STRATEGIC PLAN RELEVANCE

Servicing and Facilities: Direction to ensure efficient infrastructure, and that municipal facilities are properly managed and maintained for future use.

5. RECOMMENDATION AND DRAFT MOTION

Recommend approval of the following draft motions.

Draft Motions:

Moved and seconded that for the fiscal year ended March 31, 2022 the Water Utility transfer \$25,000 to its Membrane Replacement Reserve and \$83,445 to its Future Capital Reserve.

Moved and seconded that for the fiscal year ended March 31, 2022 the Water Utility provide a dividend of \$50,000 to the Town General fund.

Attachments - 2

Acknowledged only by:

Jamie Doyle
CAO

TOWN OF LUNENBURG
WATER UTILITY OPERATING FUND
STATEMENT OF FINANCIAL ACTIVITIES
YEAR ENDED MARCH 31, 2022

DRAFT

Schedule 1

	2022		
	Budget	Actual	Variance
Operating Revenue			
Metered sales	\$ 535,000	\$ 545,600	\$ (10,600)
Flat rate sales	665,100	672,252	(7,152)
Public fire protection	331,000	330,815	185
Sprinkler service	6,800	6,978	(178)
Other	11,200	13,064	(1,864)
Total Operating Revenue	1,549,100	1,568,709	(19,609)
Operating Expenditure			
Source of supply	118,700	24,652	94,048
Pumping	59,800	55,907	3,893
Water treatment	337,000	295,581	41,419
Transmission and distribution	240,600	200,953	39,647
Administrative and general	465,700	437,294	28,406
Depreciation	287,400	301,340	(13,940)
Taxes	43,500	42,961	539
Total Operating Expenditure	1,552,700	1,358,688	194,012
Net Operating Revenue	(3,600)	210,021	(213,621)
Non-operating Revenue			
Interest earned	2,500	3,562	(1,062)
Grants from Province of Nova Scotia	9,000	8,191	809
Miscellaneous	80,500	-	80,500
	92,000	11,753	80,247
Non-operating expenditure			
Interest charges - short term	-	22	(22)
Debt charges			
Principal	40,750	40,750	-
Interest and discount	17,650	17,052	598
Transfer to capital fund	-	83,445	(83,445)
Transfers to Reserve			
Reserve for land purchases	5,000	5,000	-
Reserve for Membrane Replacement	-	25,000	(25,000)
	63,400	171,269	(107,869)
Net Non Operating Revenue (Expenditure)	28,600	(159,516)	188,116
Excess of revenue over expenditure	\$ 25,000	50,505	\$ (25,505)
Surplus, beginning of year		253,182	
Transfer to Town General	(25,000)	(50,000)	25,000
Surplus, end of year		\$ 253,687	

Capital Status Report for the Year Needed March 31, 2022

WATER UTILITY	Project	Budget	YTD Actual	Under/(Over) Budget
<u>General</u>				
	New Services	\$10,000	\$0	\$10,000
<i>Comment:</i> No capital level new services required during year.				
	Replacement Hydrants	\$10,000	\$3,370	\$6,630
<i>Comment:</i> Completed as required.				
	Replacement Meters	\$43,000	\$0	\$43,000
<i>Comment:</i> No capital level meters required during year.				
<u>Distribution Mains</u>				
	Water and Wastewater System & GIS Development (includes all underground infrastructure)	\$62,500	\$0	\$62,500
<i>Comment:</i> Project CF to 22-23. Will be capitalized in fiscal 22-23 when completed.				
<u>Building Improvements & Construction</u>				
	Chlorinator	\$10,000	\$0	\$10,000
<i>Comment:</i> Combined with other Chlorinator project below.				
	Dam and Spillway - Geotechnical, Downstream Channel Assessment and pre-design of Dam	\$62,500	\$18,636	\$43,864
<i>Comment:</i> Project was CF from 20-21. Work completed under budget.				
	Detailed Design of Dam and downstream channel rehabilitation	\$30,000	\$34,929	(\$4,929)
<i>Comment:</i> Completed.				
	Repair Spillway Dares Lake	\$275,000	\$0	\$275,000
<i>Comment:</i> Project CF to 22-23 but on hold until Water Withdrawal Approval Renewal is complete.				
	Replacement of Raw Water Inlet to Pumphouse	\$15,000	\$0	\$15,000
<i>Comment:</i> Project did not proceed.				
	Electric Net Metering Assessment	\$5,000	\$0	\$5,000
<i>Comment:</i> Staff report at August 9, 2022 Council meeting provided report findings. Cost of report was \$2,890 and has been expended in the operations budget.				
	Armouries-Interior Renovations	\$10,000	\$8,814	\$1,186
<i>Comment:</i> Completed.				
	Armouries-Yard Improvements	\$7,500	\$4,382	\$3,118
<i>Comment:</i> Completed.				

Capital Status Report for the Year Needed March 31, 2022

WATER UTILITY	Project	Budget	YTD Actual	Under/(Over) Budget
Furniture & Equipment				
	Membrane Replacement <i>Comment:</i> Not required during fiscal year. CF to fiscal 22-23.	\$155,000	\$0	\$155,000
	Spare Raw Water supply Pump <i>Comment:</i> Completed.	\$9,500	\$10,038	(\$538)
	Spare Siemens Free chlorine on Line Probe <i>Comment:</i> Completed.	\$3,100	\$3,189	-\$89
	Spare HACH on Line Turbidimeter with Controller <i>Comment:</i> Completed.	\$6,000	\$5,747	\$253
	Spare Gas Chlorinator Maintenance Kits and Spare Parts <i>Comment:</i> Completed, combined with Chlorinator project.	\$6,000	\$8,336	(\$2,336)
	Replacement of industrial hot water heater for mixing up Corrosion inhibitor <i>Comment:</i> Completed.	\$5,000	\$5,256	(\$256)
	One Spare Effluent Pump <i>Comment:</i> Completed.	\$5,400	\$5,736	(\$336)
			<u>\$108,432</u>	
Capital Funding - Depreciation Reserve			<u>\$108,432</u>	
Balance in Depreciation Reserve after year-end capital funding \$1.9M.				

Document No:
Meeting: Council – Sept.13/22
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MEMORANDUM

TO: TOWN COUNCIL

FROM: LISA DAGLEY, FINANCE DIRECTOR

DATE: AUGUST 24, 2022

RE: RFP AWARD – ELECTRIC UTILITY SUSTAINABILITY ASSESSMENT

1. FACTS

The Request for Proposals (RFP) for the Lunenburg Electric Utility (LEU) Financial Evaluation and Sustainability Assessment closed on July 29, 2022. Staff require Council approval to proceed with this study.

2. ISSUES AND OPTIONS ANALYSIS

LEU is seeking an independent report that provides a comparative assessment of the sustainability, risks, and potential impact on customer rates under different potential paths forward regarding the future ownership and operation of the utility, as follows:

- Sale of the utility to NSP or another third party (subject to NSUARB approval)
- Retain ownership and renew the service contract with NSP or another provider
- Re-establish the Town's in-house field staff

RFP Results

The Town received proposals from the five firms, ranging in price from \$60,000 to \$120,510 + HST.

Company	Price (excluding HST)
CIMA Canada Inc.	\$65,000
Eastpoint Engineering	\$65,000
Chymko Consulting	\$60,000
KPMG	\$85,000
Metsco Energy	\$120,510

Staff reviewed and ranked the submissions. The topped ranked consultant was **CIMA Canada** at a cost of **\$65,000 + HST**.

3. FINANCIAL IMPACT

This study is an operating expenditure in the Electric Utility. The Utility's Consulting budget is \$20,000 for fiscal 22-23. However, there is potential for the overages in the Consulting budget to be offset by other operational savings that may potentially be achieved during balance of the fiscal year.

4. STRATEGIC PLAN RELEVANCE

This project is part of the Servicing and Facilities Strategic Direction of the Town's Comprehensive Community Plan; a town where the long-term infrastructure needs of the community are met through strategic management and incremental, well-phased upgrades that are financially sustainable.

5. RECOMMENDATION AND DRAFT MOTION

It is recommended that Council approve the following draft motion:

Draft Motion:

Moved and seconded to award the RFP for the Electric Utility Sustainability Assessment to CIMA Canada in the amount of \$65,000 + HST.

Acknowledged only by:

Jamie Doyle
CAO

Document No:
Meeting: Council – September
13, 2022
Circulate: Council
File:

MEMORANDUM

TO: TOWN COUNCIL

FROM: KELLY CUNNINGHAM, RECREATION DIRECTOR

DATE: AUGUST 31, 2022

RE: LUNENBURG ARENA: NEW SOUND SYSTEM DONATION

1. FACTS

The Lunenburg War Memorial Arena has an existing sound system that was installed approximately in 1997. The existing sound system is in need of an upgrade to improve the sound quality.

2. ISSUES AND OPTIONS ANALYSIS

The Lunenburg Area Minor Hockey and Sporting Society (“Society”) has offered to replace the existing sound system and install a new sound system, with a 100% donation. The Society was set up in 2010 to preserve the assets of Lunenburg Minor Hockey when they amalgamated with Bridgewater to form the South Shore Minor Hockey Association. The Society’s mandate is to provide support for youth involved in minor sports living in the Lunenburg catchment area.

The Arena’s existing sound system causes loud crackling noises when in use and is unable to use both a microphone (for announcing) and play music during hockey games from the penalty box. When music is played from the penalty box, there is no base which impacts the quality of the sound being played.

3. FINANCIAL IMPACT

There is no financial impact to the Town.

4. STRATEGIC PLAN RELEVANCE

Strategic Direction

- ***Culture & Recreation:*** A town where all community members have access to cultural and recreational experiences.

5. RECOMMENDATION AND DRAFT MOTION

To approve the following draft motion:

Draft Motion: moved and second to approve a donation for a new sound system to be installed at the Lunenburg War Memorial Arena, funded fully by the Lunenburg Area Minor Hockey and Sporting Society.

Attachments –

Schedule A – Correspondence from Jamie Green, President of the Lunenburg Area Minor Hockey and Sporting Society

Acknowledged only by:

Jamie Doyle
CAO

From: Jamie Green <jamiegreen@live.ca>
Sent: August 31, 2022 11:54 AM
To: Heather McCallum
Cc: Kelly Jardine; Kelly Cunningham; Jamie Green
Subject: Lunenburg Arena – Sound System Opportunity

Importance: High

CAUTION: THIS IS AN EXTERNAL MAIL

Good morning Heather,
I hope the day finds you well.

Please excuse the length of this email but a bit of background is necessary.

My is Jamie Green and I represent the Lunenburg Area Minor Hockey & Sporting Society. This society was set up in 2010 to preserve the assets of Lunenburg Minor Hockey when they amalgamated with Bridgewater to form South Shore Minor Hockey.

Our mandate is to provide support for youth involved in minor sports living in the Lunenburg catchment area. Over the years we have provided support to teams attending special events, high level athlete training, and have provided funds to Bluenose and Bayview Academies to help keep fees down for those playing school sports.

Growing up here and playing my hockey days in the same arena, leaves me with a passion for what I/we can do to enhance the sporting experience for everyone in the town.

That said, I approached Kelly Cunningham about the possibility of our society installing a new sound system in the arena as the current one is underpowered and distorted.

Earlier today, after arranging with Kelly, I had a sound engineer attend the arena who will be providing me with a quote in the coming days. That said, his verbal quote is within our anticipated budget, and is the reason I am writing to you now.

I would like to formally offer to have a new sound system installed in the Lunenburg Arena, at no cost to the town and wish to begin the process to allow this to happen.

I am aware of your next meeting date, however due to the safety aspects of installation, it would be better to try and accomplish this before the ice goes in, leaving us with a short time window.

I am available anytime, day or night, to present, answer questions or attend any meetings in order to have the approval to move forward with the much-needed upgrade.

The society asks for nothing in return short of maybe a picture or story for the local paper.

Please let me know if you have any questions and advise me on next steps.
Sincerely,

Jamie Green
President – LAMHSS
(902) 521-5107
jamiegreen@live.ca

Document No:
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File:

MEMORANDUM

TO: TOWN COUNCIL

FROM: LISA KENDALL, MUNICIPAL ENGINEER / PROJECT MANAGER

DATE: AUGUST 31, 2022

RE: RFP AWARD – GIS MASTERPLAN

1. FACTS

The Request for Proposals (RFP) for the development of a GIS Masterplan for water and wastewater systems closed on August 2. This report includes a recommendation for Town Council to approve this RFP. All RFP awards over \$100,000 must be approved by Council.

2. ISSUES AND OPTIONS ANALYSIS

The Town of Lunenburg has identified the need for a complete water, sewer, and storm water master plan as a key part of ongoing efforts to develop an Asset Management Plan. This plan is required to understand and model the existing underground infrastructure (water distribution, sanitary sewer, and storm sewer). With this plan, staff will be able to determine effective and systematic replacements and upgrades to the underground infrastructure as well as strategies for sanitary and storm sewer separation and salt water intrusion.

In June 2022, CBCL completed an Assessment Management Road Map and Level of Service and initial description, sewer and water maps with the initial critical asset ratings, and a database of the initial survey of water and sewer infrastructure. The GIS Masterplan is the next stage of GIS development.

The GIS Masterplan Project includes the following phases:

- Phase 1 – Field Data Collection and Computer Models
- Phase 2 – Calibration
- Phase 3 - Simulations

The amount approved in the 2022/23 Capital Budget for this Project is \$200,000 including net HST. The intent is to have the GIS Masterplan work completed by June 30, 2023.

RFP Results

The following is a summary of the RFP prices submitted for the GIS Masterplan, excluding HST.

Company	Tender Price (excluding HST)
CBCL	\$153,954.00
EXP Services Inc.	\$167,564.00
Soluzioni Globali SRL	\$125,000.00
TEK PROJEKT	\$120,900.00

Two of the submissions, Soluzioni Globali SRL and TEK PROJEKT, have experience in telecoms and data processing type work. Both of these submissions did not meet the proposal requirements of the RFP.

Both EXP and CBCL proposals met the requirements of the RFP. The two proposals are both of similar strength in terms of direct project experience, corporate experience, and project management. CBCL scored higher on personnel experience, technical understanding and project plan. In addition, CBCL was the lower of the two bids.

3. FINANCIAL IMPACT

The amount approved in the 2022/23 Capital budget for the GIS Masterplan Project is \$200,000 including the net HST. CBCL's RFP price is \$158,500 including the net HST.

4. STRATEGIC PLAN RELEVANCE

This project is part of the Servicing and Facilities Strategic Direction of the Town's Comprehensive Community Plan; a town where the long-term infrastructure needs of the community are met through strategic management and incremental, well-phased upgrades that are financially sustainable.

5. RECOMMENDATION AND DRAFT MOTION

It is recommended that Council approve the following draft motion:

Draft Motion:

Moved and seconded that the GIS Masterplan RFP be awarded to CBCL for the price of \$153,954 plus HST.

Acknowledged only by:

Jamie Doyle
CAO

Document No:
Meeting: Council – Sep 13/22
Circulate
File:

MEMORANDUM

TO: TOWN COUNCIL

FROM: TYSON JOYCE, TOWN ENGINEER

DATE: SEPTEMBER 12, 2022

RE: TENDER AWARD – DUKE AND PRINCE STREET RECONSTRUCTION

1. FACTS

The Tender for the civil work associated with the Duke and Prince Street Reconstruction closed on September 9. This report includes a recommendation for Town Council to approve the award of this Tender. All tender awards over \$100,000 must be approved by Council.

2. ISSUES AND OPTIONS ANALYSIS

The Duke and Prince Street Reconstruction work includes the removal of existing roadway structure and replacement of gravels and asphalt along Duke Street (between Lincoln and Townsend) and Prince Street (between Cumberland and Fox).

The combined total amount approved in the 2022/23 Public Works Capital Budget for these two streets is \$300,000 including net HST.

Tender Results

The following is a summary of the Tender prices submitted for the Duke and Prince Street Reconstruction, excluding HST

Company	Tender Price (excluding HST)
Dexter Construction	\$347,920

This was the only Bid received by the Town and may be due to market conditions and the timing of the Tender.

3. FINANCIAL IMPACT

The combined amount approved in the 2022/23 Public Works Capital Budget for the street reconstruction on Duke and Prince is \$300,000 (including net HST) funded with Gas Tax Funds.

The revised Project budget is as follows:

Item	Cost including Net HST
Engineering & Inspection	\$ 18,000
Duke & Prince St Road Reconstructions	\$363,000
Contingency	\$ 38,000
Revised Budget	\$419,000

To proceed with the reconstruction of both streets will require a budget increase of \$119,000. There aren't sufficient Gas Tax funds in 22-23 to fund this additional budget amount but there is sufficient Deed Transfer Taxes that could be used for this purpose.

4. STRATEGIC PLAN RELEVANCE

This project is part of the Servicing and Facilities Strategic Direction of the Town's Comprehensive Community Plan; a town where the long-term infrastructure needs of the community are met through strategic management and incremental, well-phased upgrades that are financially sustainable.

5. RECOMMENDATION AND DRAFT MOTION

It is recommended that Council approve the following draft motion:

Draft Motion:

Moved and seconded that the Duke and Prince Street Reconstruction Projects be awarded to Dexter Construction for the amount of \$347,920 plus HST with and increased combined budget of \$419,000 with funding of \$300,000 from Gas Tax and \$119,000 from Deed Transfer Taxes.

Acknowledged only by:

Jamie Doyle
CAO

Document No:
Meeting: September 13, 2022
Circulate: Council, JD, HM, AM
File:

MEMORANDUM

TO: TOWN COUNCIL

FROM: TREVOR HUME, PLANNING TECHNICIAN

DATE: AUGUST 11, 2022

RE: BUILDING PERMIT REPORTING - INFORMATION REPORT

This report is provided to Council for information only. No decision is required.

1. FACTS

At the request of the Mayor, regular reporting on processed building permits is prepared on a quarterly basis. This reporting outlines building permits for all types of developments including new dwelling units.

2. ANALYSIS

In April, Community Development provided a basic report on permit activity. At that time, we reported 16 building permits with a construction value of just over \$1 million dollars for the period of January 1st, 2022 to April 1st, 2022.

For the current quarter (April – June inclusive) we are in the position to provide additional detail that was not available in April. Staff have undertaken a review of permits as part of other initiatives, and additional data can now be provided and will continue to be provided for future reports.

The following is a summary of permit activity for the second quarter (calendar) of 2022.

ACTIVITY REPORT

For Period 2022-04-01 to 2022-06-30

Type	Previous Period			Current Period		
	Permits	Units	Value of Construction	Permits	Units	Value of Construction
Single Family	4	0	158,650	5	0	46,610
Duplex/Semi	0	0	0	1	0	120,000
Apartments	1	0	150,000	2	10	700,000
Other Residential	4	0	36,800	1	0	3,500
Commercial	4	0	116,001	5	7	712,002
Industrial	2	0	7,500	0	0	0
Inst & Gov	1	0	0	0	0	0
Agriculture	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	16	0	468,951	14	17	1,582,112

The table shows the second quarter for 2022 (April 1st - June 30th, 2022), on the right, against the same period for 2021. What is most notable are the 17 dwelling units approved during second quarter 2022. Please note we track dwelling units, and the 7 noted as commercial are dwelling units within commercial buildings.

To provide context for the second quarter the following summary has been prepared for the first half of 2022:

ACTIVITY REPORT

For Period 2022-01-01 to 2022-06-30

Type	<i>Previous Period</i>			<i>Current Period</i>		
	Permits	Units	Value of Construction	Permits	Units	Value of Construction
Single Family	13	4	1,701,565	11	2	146,611
Duplex/Semi	5	5	1,750,000	2	1	165,000
Apartments	2	0	500,000	5	26	1,510,001
Other Residential	5	0	46,800	2	0	11,500
Commercial	4	0	116,001	9	7	730,004
Industrial	2	0	7,500	0	0	0
Inst & Gov	2	0	10,000	0	0	0
Agriculture	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	33	9	4,131,866	29	36	2,563,116

While the first half of 2021 had more permits and a higher construction value, the corresponding period in 2022 resulted in 36 dwelling units being approved, versus 9 the year previous.

3. **FINANCIAL IMPACT**

None.

4. **STRATEGIC PLAN RELEVANCE**

Reporting of the number of development permits and building permits issued within the Town of Lunenburg using “snapshot” of building activity is in keeping with the Town’s Comprehensive Community Plan, in particular:

Economic Development: Direction to support economic development.
 Governance: Direction to enhance internal and external relations through policies, procedures, and resources.

5. **RECOMENDATION**

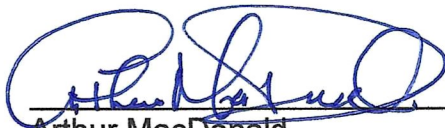
None. This report is strictly to provide information to council on development permit and building permit activity.

Submitted by:



Trevor Hume
Planning Technician

Date: August 11/2022



Arthur MacDonald
Director of Community Development

Date: August 11/2022

Acknowledged only by:

Jamie Doyle
CAO

Document No:
Meeting: Council – Sept 13/22
Circulate
File:

MEMORANDUM

TO: TOWN COUNCIL

**FROM: TYSON JOYCE, TOWN ENGINEER AND
LISA KENDALL, MUNICIPAL ENGINEER/PROJECT MANAGER**

DATE: SEPTEMBER 1, 2022

RE: CAPITAL STATUS UPDATE

1. FACTS

The most recent Capital Status Update for fiscal 22-23 was provided at the July 12, 2022, Council meeting. Staff provide further updates on the status of projects and potential risks for fiscal 22-23.

2. ISSUES AND OPTIONS ANALYSIS

Projects in the current year's Capital Budget include:

- **WWTP Flood Protection** (Consultant is CBCL, Contractor is Dexter Construction) – Construction of the low permeability berms got underway in mid August and shall be completed in early September, providing the much needed protection for the upcoming hurricane season. Reinstatements for the access driveway and landscaping for the berms are expected to be complete by mid September.
- **Tannery Rd Watermain Replacement** (Consultant is CBCL, Contractor is Aberdeen Paving) – The Contractor is working on sourcing materials and planning for the commencement of work sometime in early/mid September. The expected duration of work is approximately 6-8 weeks.
- **Duke St & Prince St Street Reconstructions** (Consultant is Englobe) – This Tender is scheduled to close on September 9, at which time Staff shall review the submissions, but there is budget and a small timeline risk now that we get later into the year with current market conditions and workloads. A Staff Report shall be prepared on the Street Reconstruction Project once the Tender review is completed.

- **Green St Sidewalk Renewal** (Consultant is Eastpoint) – Staff have provided comments on the 50% design and are expecting the final design (including Class A cost estimate) in early September. The budget and timeline risk remains for this work and it is still likely to require construction deferral to fiscal 23-24.
- **Tannery Rd Sidewalk Construction** (Consultant is Able) – Staff have recently been working with the Consultant to examine any traffic engineering issues associated with the sidewalk construction, and this impacted the timeline for design. Final design and Class A estimate are expected in mid September. This timeline will still allow us to ready to Tender and construct early in fiscal 23-24 to better take advantage of the expected market factors.
- **Repair to Spillway at Dares Lake** (Consultant is Gemtec) – Whilst the Water Withdrawal Approval Renewal is completed, Staff are still looking for further clarification from NSE on their expectations for ecological maintenance flow (EMF). The intent is to confirm the design meets these requirements (or can be revised to do so) and to pursue the Watercourse Alteration Permit to allow this work to proceed in fiscal 23-24.

3. **FINANCIAL IMPACT**

As noted above.

4. **STRATEGIC PLAN RELEVANCE**

Capital Construction Projects are part of the Servicing and Facilities Strategic Direction of the Town's Comprehensive Community Plan; a town where the long-term infrastructure needs of the community are met through strategic management and incremental, well-phased upgrades that are financially sustainable.

5. **RECOMMENDATION AND DRAFT MOTION**

This Staff Report is for information only.

Attachments –

Summary of 2022-23 Capital Projects

Progress photograph of WWTP Flood Protection berm construction

Acknowledged only by:

Jamie Doyle
CAO

Town of Lunenburg 22-23 Capital Status Report as of August 31, 2022

22-23 Budget	Project Name	Project Lead	Procurement Status	Purchase Order(s)	Execution Date(s)	Project has		Status/General Comments
						Budget Risks	Timeline Risks	
CAPITAL CONSTRUCTION								
\$115,000	Green St Sidewalk Renewal	Tyson, Lisa K.	RFP Complete	Eastpoint: \$29,170 +HST	Design Ongoing	*	*	Final design expected early September. The budget and timeline risk remains for this work and it is still likely to require construction deferral to fiscal 23-24.
\$300,000	Duke St (Lincoln to Townsend) & Prince St (Cumberland to Fox)Reconstruction	Tyson, Lisa K.	RFP Complete Tender Advertised, Closing Sept. 9	Englobe: \$17,200	Dependant on Tender Submissions	*	*	This Tender is scheduled to close on September 9, at which time Staff shall review the submissions.
\$145,000	Tannery Rd Sidewalk	Tyson, Lisa K.	RFP Complete	ABLE: \$22,100 +HST	Design Ongoing	*	*	Staff have recently been working with the Consultant to examine any traffic engineering issues associated with the sidewalk construction and this impacted the timeline for design. Final design expected mid September. This timeline will still allow us ready to Tender and construct early in fiscal 23-24.
\$590,000	Tannery Rd Watermain Replacement/ CSK-05 (Storm Diversion) Tannery/Knickle/Green	Tyson, Lisa K. Tyson, Lisa K.	Complete	CBCL: \$19,000 +HST Aberdeen Paving: \$490,261 +HST	September/October 2022			The Contractor is working on sourcing materials and planning for the commencement of work sometime in early/mid September. The expected duration of work is approximately 6-8 weeks.
\$40,000	Water Line Loop Connection at Harbourview and Morash	Lisa K.	RFP Complete	Englobe: \$22,050 +HST				RFP awarded to Englobe. Engineering work to commence. Tender to be prepared for winter 2023 advertisement.
\$60,000	Chlorinator (Building Demolition)	Lisa K.	Tender Complete	Dexter: \$24,400 +HST	Complete			Project is complete.
\$160,000	Repair Spillway Dares Lake	Tyson, Lisa K.					*	Whilst the Water Withdrawal Approval Renewal is completed, Staff are still looking for further clarification from NSE on their expectations for ecological maintenance flow. The intent is to confirm the design meets these requirements and to pursue the Watercourse Alteration Permit to allow this work to proceed in fiscal 23-24.
\$15,000	Raw Water Pumphouse Waterproof Foundation	Lisa K.						In-house work.
\$60,000	Fire Hall Vehicle Exhaust Extraction System	Lisa K.	RFP Closed, Evaluating			*	*	Staff following up with additional questions.
\$131,000	Arena Upgrades	Lisa K., Kelly C.	RFP Complete (Olympia Room) RFP Closed, Evaluating (Bathroom and Entrance)	JND: \$45,300 +HST (Olympia room)	August 2022	*		Olympia Room: Construction ongoing Bathroom: Evaluating RFP Entrance: Evaluating RFP
\$373,300	Bluenose Drive Sewer Lining	Ian	Tender Complete	Eastern Trenchless: \$198,500 +HST	September 26-30, 2022	*		Liners have been made and are shipped. Work is scheduled for September 26 - 30.
\$20,000	Catch Basin Repair - West Nova Parking Lot	Lisa K.	Preparing Req for Materials		Fall 2022			Public Works In-House Project
\$31,500	Manhole Cover Upgrades	Lisa K.	Complete	IMP Foundry Group: \$9,282 +HST	September 2022			Manhole covers delivered. Public Works to install.
\$44,000	Skate Park Upgrades	Lisa K., Kelly C.	RFP Closed, Evaluating					Upgrades: Staff are evaluating the RFP. Gazebo: Public Works In-House Project
\$25,000	Tree Planting	Heather, Lisa K.			Tree Planting: September 2022			Trees are ordered for the 25 locations.
\$30,000	Hwy 103 Community Identity Signs	Heather						With DTR for approval.
\$14,000	Cricket Modifications to Baseball Field	Kelly C.	Complete	Flicx: \$5,898 +HST				The pitch has been received. Waiting on cage.
SUBSTANTIAL OPERATING								
\$10,000	Crack Sealing - Streets	Lisa K.	Complete	Road Savers Maritime Limited: \$1.10/ft	Complete			Project is complete.
\$3,000	Crack Sealing and Asphalt Repairs - Recreation Parking Lot	Lisa K.	Complete	Road Savers Maritime Limited: \$1.10/ft	Complete			Project is complete.
\$50,000	Sidewalk Maintenance (Labour & Materials)	Lisa K.	Complete	South Shore Ready Mix: \$173.55/cu yard	Ongoing			Public Works In-House Work
\$50,000	Asphalt Patching	Lisa K.	Complete	Dexter: max \$50,000	Ongoing			Public Works In-House Work
\$6,000	Water Leak Study	Tyson, Lisa D.						

Town of Lunenburg 22-23 Capital Status Report as of August 31, 2022

22-23 Budget	Project Name	Project Lead	Procurement Status	Purchase Order(s)	Execution Date(s)	Project has		Status/General Comments
						Budget Risks	Timeline Risks	
\$5,500	Water Fire Flow Study	Tyson, Lisa D.						Flow meter received.
	Fire Hall Heat Pump Shelters	Lisa K.			Fall 2022			
	Meter Upgrades to Lift Stations	Cali, Lisa K.			Ongoing			Rous Brook, Tannery Rd, Young St NSPI site investigations coordinated by Cali
\$6,800	Line Painting	Lisa K.	Complete	NSBS: \$3,648 +HST	Ongoing			Centerlines complete. Crosswalks, parking stalls, etc. ongoing by PW Staff
	Fire System Annual Tests/Inspections	Lisa K.						Fire Alarm Testing - Complete Fire Extinguisher Inspection - Complete Sprinkler Testing - To be completed fall 2022
\$5,500	Bandstand Retaining wall	Lisa K.			Fall 2022			Public Works In-House Work
\$5,000	Pneumatic Cleaning System on Intake System WTP	John M., Lisa K.						
	Universal Water Metering	Tyson, Lisa D.						Preparation work in anticipation of 23-24 project kick off

PROCUREMENT

\$115,000	Tannery Rd Sidewalk - Land Purchases	CAO, Lisa D.						
\$202,000	Replacement of Chev 02 Salt Truck & Plow	Lisa D.	Complete	Silver's Garage: \$188,954 +HST	Expected delivery: Spring 2023			Truck is ordered
\$36,350	Replacement of 2002 F150 1/2 ton	Lisa D.	Complete	Steele Chev: \$32,754 +HST	Delivered			Vehicle Received
\$694,600	Fire Freightliner Rescue (02) #4 Replacement	Gary	Complete	PO Issued				Truck is ordered
\$141,500	Fire Utility (99) #7 Replacement	Gary	Complete	PO Issued				Truck is ordered
\$40,000	Replacement of 2008 Van	Lisa D.	Complete	Steele Chev: \$28,576 +HST	Delivered			Vehicle Received
\$225,000	Dresser Loader (86) Replacement	Lisa D.	Complete	Wilson Equip: \$219,000 +HST	Delivered			Vehicle Received
\$30,000	Snow Push Blade for Backhoe	Lisa K.	Complete	Wilson Equip: \$22,425 +HST	Delivered			Plow is Received
\$20,000	EDI - Interpretive Panels	Heather						
\$5,500	Spare Industrial Hot Water Tank	John M., Lisa K.	Complete					Ordered
\$6,500	Spare Sigma Pump for Soda Ash System	John M., Lisa K.	Complete					Ordered
\$3,500	Spare Siemens Free Chlorine Online Probe	John M., Lisa K.						
\$9,500	Replacement Chlorinator	John M., Lisa K.				*		Spare for emergency only (Report July 12)

STUDIES/ASSESSMENTS

\$95,000	Town Hall Exterior Restoration Tender Package	Lisa K.	Complete	Fishburn Sharidan: \$81,319 +HST	Ongoing			95% report expected September 1st.
\$110,000	Studies for the Planning of Improved Utilization of Assets and the Disposition of Assets, includes 1. Recreation 2. Upper King Street 3. Blockhouse Hill							
\$20,000	Civic Square Plan		Bandstand BCA RFQ Complete	DSRA: \$1,850 +HST	Bandstand BCA Complete			Building Condition Assessment of Bandstand final report received.
\$45,000	Parking Strategy Study & Upgrades	Jamie						
N/A	Cemetery							
\$20,000	Affordable Housing Study (operating)							
\$200,000	GIS Underground Infrastructure Master Plan	Ian, Lisa K., Lisa D., Tyson	RFP Closed, Evaluating					Tentative Schedule: Phase 1: Computer Models /Survey October 2022 Phase 2: Calibration March 2023 Phase 3: Simulations June 2023

Town of Lunenburg 22-23 Capital Status Report as of August 31, 2022

22-23 Budget	Project Name	Project Lead	Procurement Status	Purchase Order(s)	Execution Date(s)	Project has		Status/General Comments
						Budget Risks	Timeline Risks	
N/A	Public Works Vehicle Replacement Plan	Public Works						10 year cycle
\$10,000	Membrane Replacement (Engineering & Tender) WTP	Tyson, Lisa K.						
\$30,000	Phase II ESA Armouries	Lisa K.	Complete	Strum Consulting: \$18,900 +HST	Ongoing			Drilling of boreholes scheduled for Tuesday, September 6.
WASTEWATER UPGRADES								
\$67,000	WWTP Blower Room HVAC Improvements	Ian, Lisa D.						
\$20,000	Flow Meter Install Pump Station #7	Lisa K., Lisa D.			July/August			Public Works In-House Project. We have the meters. Coordinate with John Lohnes. Will need a PO for Kevin Cook.
\$71,500	WWTP Upgrade Pre-design	Ian, Lisa D.	Complete	CBCL				
\$365,000	WWTP Flood Control	Ian, Lisa D., Tyson	Complete	Dexter: \$232,000 +HST	Ongoing			Construction got underway in mid August. Berms to be complete early September. Reinstatements for the access driveway and landscaping for the berms are expected to be complete by mid September.
\$40,000	Chemical Feed Pumps (2)	Lisa K., Lisa D.						Pumps ordered, 12 week delivery anticipated in May 2022
\$102,200	Communication Systems to Lift Stations	Ian, John L.	Complete	KRC: \$92,200	Upgrades are currently underway			
\$9,982,000	WWTP Upgrade with SBR	Ian, Lisa K., Lisa D., Kathleen						Funding application submitted in March 2022
\$55,000	Saltwater Infrusion - Check Valve Install	Lisa K.	Complete	McLennan Sales: \$38,324.60 +HST	Summer 2022			Check Valves delivered. Install: Public Works In-House Project



Ann Covey

Subject: Coun Sep 13 22 19th Annual September Classic - Noise By-law Exemption Request for Fireworks
Attachments: 2022 September Classic Invite Sept 6 2022.pdf

From: Edward <edward@telltale.tv>
Sent: September-06-22 3:40 PM
To: Ann Covey <acovey@townoflunenburg.ca>
Cc: Jamie Doyle <cao@townoflunenburg.ca>; Heather McCallum <hmccallum@townoflunenburg.ca>
Subject: 19th Annual September Classic - Noise By-law Exemption Request for Fireworks

CAUTION: THIS IS AN EXTERNAL MAIL

Hi Ann,

Thanks for the email follow-up to our conversation this morning.

As discussed, I would like to request an exemption to the Noise By-Laws to have a fireworks display in conjunction with the 19th annual September Classic wooden boat regatta.

The September Classic is a celebration of wooden boats and over the past 20 years has grown to become the largest gathering of wooden boats in Eastern Canada attracting 18-20 vessels and up to 200 participants. This is the first time we've held the event since 2019 due to COVID and the shore based operations will be based at the Bluenose Shed (aka The Big Boatshed) on Burma Drive. Copy of the invitation attached.

The date will be Saturday Sept. 17 and we anticipate the fireworks display to start at 9 PM and be less than 10 minutes in duration. The fireworks will be launched from a floating platform in the harbour and won't pose any risk to property on shore.

I want to thank Council in advance for considering this request and if you require any additional information please let me know.

Regards,
Edward Peill

188 Cumberland St.
Lunenburg, N.S.

Email: edward@telltale.tv
Mobile: (902) 497-0888

www.telltale.tv



From: Ann Covey <acovey@townoflunenburg.ca>
Sent: Tuesday, September 6, 2022 8:50 AM
To: Edward <edward@telltale.tv>
Cc: Jamie Doyle <cao@townoflunenburg.ca>; Heather McCallum <hmccallum@townoflunenburg.ca>
Subject: Noise By-law Exemption Request for Fireworks

Good morning,

As per our previous phone conversation, to request a noise exemption for fireworks for the 19th Annual Lunenburg Classic Boating event, you will need to apply to Council. Please forward a letter/email outlining the ask with details of date, time, purpose, etc. to Jamie Doyle, CAO, cc'd above, in order to be added to the next Council Meeting Agenda.

Thank you and good luck with this year's event!

Kind regards,

Ann Covey (she/her)
Administrative Assistant
Town of Lunenburg
119 Cumberland Street, PO Box 129
Lunenburg, NS Canada B0J 2C0
T 902-634-4410 x225
acovey@townoflunenburg.ca
www.townoflunenburg.ca

Please be aware that any communications made to the Town of Lunenburg will become records that are subject to the freedom of information and protection of privacy provisions contained in Part XX of the Municipal Government Act. Depending on the nature of the information and the subject matter, such communications may become part of the public record. If you are sending confidential business information or personal information, please mark it as such.

My regular hours of work are Monday, Tuesday, Thursday, and Friday 8:15 a.m. – 4:30 p.m.

NOTICE TO MARINERS

The pernicious plague that has locked us down, kept us apart, and smothered our spirits seems to be easing its grip. Years of solitary confinement are behind us. Brave souls share hugs on the waterfront.

Dare we hope for more? Dare we contemplate the return of the entirely foolish, joyful, and majestic **SEPTEMBER CLASSIC**? To this the Brotherhood Of The Coast says yes! Yes, by all that's worthy we sail again!

Let us gather our wooden vessels on **Saturday Sept. 17** in the year of our lord two thousand and twenty-two at **11 AM** with hearts aflutter to brest the briny deep in glorious reunion. For those not participating in the sailing race, the feast and evening festivities will begin at **6 PM**.

Due to the increasing number of participants, a new venue has been secured at the recently refurbished Bluenose Shed in Lunenburg (aka The Big Boat Shed) at 12 Burma Road.

We shall banish the creeping drear that has plagued us these past two years and renew our commitment to fun, frolic, and the freedom of the seas. As is our tradition, a feast of free-range heritage breed swine roasted over an open fire shall be paired by a bounty of local produce and accompanied by thirst quenching Propeller beer and Screech rum.

The September Classic has had but one objective since its inception 22 years ago - to bid fond farewell to the gentle sweetness of summer with a full throated, high spirited, explosion of nautical tomfoolery as we celebrate the majesty of hand built wooden sailing vessels. As always, no fiberglass vessels shall be permitted. Handicapping and race rules shall be at the whim of the organizers and will not withstand any logical scrutiny.

So, let us raise our sails, gird our loins, free our spirits, and once again revel in The September Classic.

Argh!

Brotherhood Of The Coast