DEVELOPMENT AGREEMENT 493 KING STREET, BRIDGEWATER, NS

| THIS | AGREEMENT | made this | day of | , A.D. 2020. |
|--------|---|---|--|---|
| | | | | |
| BETW | EEN: | | PROPERTIES L | |
| | | | | OF THE FIRST PART |
| | | AND | | |
| | | a municipal bo | RIDGEWATER, ody corporate purs Act, hereinafter ca | suant to the <i>Municipal</i> lled the " Town " |
| | | | | OF THE SECOND PART |
| 60029 | 915) ("the Pro | | described in Sch | operty at 493 King Street (PID ledule A, for a mixed use, multi- |
| on the | Future Land | Use Map of th Downtown Com | e Municipal Planr | ignated 'Downtown Commercial' ning Strategy (December 2014), the Zoning Map of the Land Use |
| Part 5 | .2.4(b) of the L | and Use By-law | (December 2014 | Strategy (December 2014) and allow Town Council to consider evelopment Agreement; and |
| a Dev | | | Property, to all | e Town of Bridgewater approved ow the proposed development, ent by the parties hereto; and |
| WHEF | REAS the Prop | perty Owner is t | he owner of the P | roperty: |
| | | | | of the foregoing recitals and for reto agree as follows: |
| 1. | SCHEDULE | S | | |
| | Schedule A: Schedule B: Schedule C: | attached Sche Description of L Elevation Draw Second Level F Wastewater Stu | .ands ings Plan | part of this Agreement: |
| • | DEDINTED | | | |

2. PERMITTED USE

That the development on the Property shall be limited to:

- (a) Multi-unit residential to a maximum of nineteen (19) dwelling units;
- (b) Ground floor building frontage occupied by a commercial use with more than 50% of the ground floor area used for commercial purposes as permitted in the underlying zoning; and
- (c) Those uses permitted in the underlying zoning by the Land Use By-law, as amended from time to time.

Except as otherwise provided in this Agreement, the provisions of the Land Use By-law, as amended from time to time, apply to any development on the Property.

3. BUILDING CHARACTERISTICS

- (a) The massing and exterior design of the building shall be in substantive accordance with the elevation drawings as shown in Schedule B.
- (b) The building shall be no more than six (6) stories from King Street grade.
- (c) The historic character-defining elements of the existing two-story building must be maintained in accordance with the King Street Architectural Controls of the Land Use By-law, as amended from time to time.
- (d) The building shall have a distinct top story, including but not limited to colour and separation by an architectural feature.
- (e) There shall be a minimum 4 foot step-back at the base of the third story, measured from King Street grade, on the King Street and Phoenix Street façades.
- (f) Unless otherwise required by the National Building Code, the exterior cladding on the King Street and Phoenix Street façades, on stories 3-6 inclusive, shall be traditional wooden clapboards or shingles.

4. LANDSCAPING, BUFFERING AND AMENITY SPACE

- (a) The property shall have amenity space, equal to or greater than an area representing 1,300 square feet, including but not limited to balconies on the third story that are a minimum of 100 square feet combined, and a rooftop patio.
- (b) Landscaping or a fence at the rear of the building shall provide visual separation to the adjacent property.
- (c) The planting of native species is strongly encouraged.
- (d) The Property Owner will be considered in default if any of the required landscaping, buffering and/or amenity space is not completed within twelve (12) months of the issuance of an Occupancy Permit.

5. LIGHTING

- (a) The lighting on the property shall be sufficient enough to promote the safety and security of all users, including but not limited to users of the rear entrance in the courtyard off Phoenix Street.
- (b) Any exterior lighting shall be positioned to minimize the illumination of surrounding areas and is located so that nearby properties and streets are not illuminated to the extent that a hazard or nuisance will result.

6. PARKING

- (a) Secure bicycle parking for no fewer than eight (8) bicycles shall be provided on the property and will be located in the landscaped courtyard, identified on the Second Level Plan in Schedule C. The bicycle parking design will be in accordance with Section 3.2.6 of the Land Use By-law (2014).
- (b) Off-street vehicular parking spaces shall be required and if such parking is offsite, the landowner shall provide written notice of a shared parking arrangement to the Development Officer.

7. MAINTENANCE

(a) The Property Owner shall ensure that all buildings on the Property are kept in good repair, and that exposed exterior surfaces are painted or

treated as may be necessary, so that the buildings are maintained in a tidy and attractive state.

(b) The Property Owner shall ensure that all retaining walls, lawns, trees, shrubs, gardens, and other landscaping elements are regularly maintained and that any undeveloped, unused portions of the lot are kept in a tidy state and free from unkempt materials or matter of any kind.

8. SOLID WASTE

Facilities for the storage of solid waste shall provide visual separation from adjacent residential development and public areas.

9. SANITARY SEWER SERVICES AND STORMWATER MANAGEMENT

- (a) The Property Owner shall ensure that all post-development peak stormwater runoff flows for all development on the Property are equal to or less than pre-development stormwater peak runoff flows for small and large storms, to the satisfaction of the Town Engineer.
- (b) The Property Owner shall ensure that sanitary sewer services and stormwater management shall be developed and implemented based on the Wastewater Study dated April 16, 2020 completed by Able Engineering Services Inc., as included in Schedule D, and shall be to the satisfaction of the Town Engineer.

10. CHANGES AND ALTERATIONS

- (a) All matters in this agreement not specified in Subsection 10(b) below are non-substantive matters which may be changed or altered without a public hearing, but with the written consent of Town Council, provided that Town Council determines that the changes do not significantly alter the intended effect of this agreement.
- (b) That the following matters are substantive matters and may not be changed or altered except by amendment to this agreement in the form of a further development agreement incorporating the intended change:
 - (i) The maximum number of dwellings units as stated in Section 2 (a); and
 - (ii) The maximum height and exterior style and design of the building as outlined in Section 3 (b) and (c).
- (c) Notwithstanding the foregoing, discharge of this Agreement is not a substantive matter and this Agreement may be discharged by Council at the request of the Property Owner without a public hearing.

12. APPLICABILITY OF THE AGREEMENT

The Property Owner agrees that the Property shall be developed and used only in accordance with and subject to the terms and conditions of this Agreement.

13. APPLICABLITY OF THE LAND USE BYLAW AND THE SUBDIVISION BYLAW

Except as otherwise provided in this Agreement, the provisions of the Land Use By-Law and the Subdivision Bylaw as amended from time to time, apply to any development, use or subdivision on the Property.

14. COMPLIANCE WITH OTHER BY-LAWS AND REGULATIONS

(a) Nothing in this agreement shall exempt or be taken to exempt the Property Owner from general compliance with federal, provincial, and/or municipal statutes, regulations and/or bylaws. This includes complying with other By-laws or Regulations in force with the Town, including the Building Code By-law and Subdivision By-law, or from obtaining any Federal, Provincial or Municipal license, permission, permit, authority or approval required.

(b) The Property Owner shall be responsible for securing all applicable approvals associated with the on-site and off-site servicing systems required to accommodate the development including, but not limited to, sanitary sewer system, water supply system, stormwater sewer and drainage systems and utilities. Such approvals shall be obtained in accordance with all applicable by-laws, standards, policies, and regulations of the Town and other approval agencies. All costs associated with the supply and installation of all servicing systems and utilities shall be the responsibility of the Property Owner, unless otherwise agreed upon. All design drawings and information shall be certified by a Professional Engineer or appropriate profession as required by this Agreement or other approval agencies.

15. COMPLIANCE WITH OTHER BY-LAWS AND REGULATIONS

Nothing in this agreement shall exempt the Property Owner from complying with other By-laws or Regulations in force with the Town, including the Building Code By-law, or from obtaining any Federal, Provincial or Municipal license, permission, permit, authority or approval required.

16. CONFLICT

- (a) Where the provision of this Agreement conflict with those of any bylaw of the Town applicable to the Property (other than the Land Use By-law to the extent varied by this Agreement) or any provincial or federal statue or regulation, the higher or more stringent requirements shall prevail.
- (b) In case of conflict, the text of the Agreement prevails over the Schedules.

17. COSTS

The Property Owner is responsible for all costs associated with recording this Agreement in the Land Registration Office. These costs are included in the Development Agreement Application Fee that is collected by the Town of Bridgewater under Policy 89 – Fees Policy.

18. FULL AGREEMENT

This Agreement constitutes the entire agreement and contract entered into by the Town and the Property Owner. No other agreement or representation, oral or written, shall be binding.

19. SEVERABILITY OF PROVISIONS

The provisions of this Agreement are severable from one another and the invalidity or unenforceability of one provision shall not affect the validity or enforceability of any other provision.

20. INTERPRETATION

- (a) Where the context requires, the singular shall include the plural, and the masculine gender shall include the feminine and neutral genders.
- (b) In case of conflict, the text of the Agreement prevails over the Schedules.

21. BREACH OF TERMS OR CONDITIONS

Upon the breach by the Property Owner of the terms or conditions of this Agreement, the Town may undertake any remedies permitted by the *Municipal Government Act*, including but not limited to any remedies permitted by section 264 of the *Municipal Government Act*.

22. TERMINATION OF AGREEMENT

- (a) This Agreement shall be in effect until discharged by resolution of the Council of the Town pursuant to the *Municipal Government Act*, whereupon the Land Use By-law shall apply to the Property; and
- (b) The Property Owner shall sign this Agreement within 180 calendar days from the date the appeal period lapses or all appeals have been abandoned or disposed of or the Agreement has been affirmed by the Nova Scotia Utility and Review Board or the unexecuted Agreement shall be null and void; and
- (c) The Town of Bridgewater may discharge this Development Agreement if the use described herein has not been commenced within twelve (12) months of the date of this Agreement; and
- (d) The Town of Bridgewater may discharge this Development Agreement if construction of the development <u>or</u> the use described herein is discontinued for twelve (12) months or longer; and
- (e) In this Agreement, the development is deemed to have been commenced or started when a development permit for any part of the development has been issued; and
- (f) The Town of Bridgewater retains the option of discharging this Development Agreement should any fact provided by the Property Owner to the Town constitute a material misrepresentation of the facts; and
- (g) This Agreement shall enure to the benefit of, and be binding upon the Town and its successors and assigns and shall enure to the benefit of and be binding upon the Property Owner, their heirs, executors, administrators, and assigns, the owner or owners from time to time of the Property, until discharged.

OWNERSHIP

| We, the Property Owner, hereby certify that I am the sole owner of PID 60029915, a described in Schedule A, having received the deed from Bank of Montreal, dated Apr 17, 2019. I have not disposed of any interest in the property and there are negligible or other liens or encumbrances affecting the property. | | | |
|---|---|--|--|
| Witness | JODY COMEAU BLACK SEAL PROPERTIES LTD. | | |

| Witness | JODY COMEAU BLACK SEAL PROPERTIES LTD. |
|---------|---|
| | TOWN OF BRIDGEWATER |
| Witness | DAVID MITCHELL, Mayor |
| Mitte | TAMMY CROWDER CAO |
| Witness | TAMMY CROWDER, CAO |

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed by affixing their seals and corporate seals on the day and year first above written.

AFFIDAVIT (CORPORATE)

| I, Jody Comeau, of, N | ova Scotia, make oath and say that: | | |
|--|--|--|--|
| 1. I am the of Black Except as otherwise stated I have persona sworn in this Affidavit. | Seal Properties Ltd., the "Corporation". I knowledge of the matters to which I have | | |
| 2. I acknowledge that the Corporation executors officer[s] duly authorized in that regathis acknowledgment is made for the purpopursuant to S.31 (a) of the Registry Act, Fland Registration Act as the case may be, instrument. | ard under seal on the date of this affidavit; ose of registering such Instrument R.S.N.S. 1989, c.392. or s. 79(1)(a) of the | | |
| 3. The Corporation is a resident of Canada | under the Income Tax Act (Canada). | | |
| 4. The ownership of a share or an interest in a share of the Corporation does not entitle the owner of such share or interest in such share to occupy a dwelling owned by the Corporation. | | | |
| 5. THAT I have authority to execute this instrument on behalf of the Black Seal Properties Ltd. | | | |
| SWORN TO at , in the County of , Province of Nova Scotia, this day of , A.D., 2020, BEFORE ME: |))) BLACK SEAL PROPERTIES LTD.))) | | |
| A BARRISTER OF THE SUPREME | ,) <u> </u> | | |

PROVINCE OF NOVA SCOTIA COUNTY OF LUNENBURG

GRANTOR'S AFFIDAVIT (CORPORATE)

- I, Tammy Crowder, of Bridgewater, Lunenburg County, Nova Scotia, make oath and say that:
- 1. I am the Chief Administrative Officer and Acting Clerk of the Town of Bridgewater, the "Municipality" and/or the "Corporation". Except as otherwise stated I have personal knowledge of the matters to which I have sworn in this Affidavit.
- 2. I acknowledge that the Town of Bridgewater executed the foregoing instrument by its proper officials duly authorized in that regard under seal on the date of this affidavit. This acknowledgment is made for the purpose of registering such Instrument pursuant to S.31 (a) of the Registry Act, R.S.N.S. 1989, c.392, as am. or s. 79(1)(a) of the Land Registration Act, S.N.S. 2001, c.6, as am., as the case may be, for the purpose of registering this instrument.
- 3. The Corporation is a resident of Canada under the Income Tax Act (Canada).
- 4. The ownership of a share or an interest in a share of the Corporation does not entitle the owner of such share or interest in such to occupy a dwelling owned by the Corporation.
- 5. That the lands and/or dwelling contained in the within Indenture are not occupied by the Mayor and/or any Councillor and/or employee of the Municipality.

| SWORN TO at Bridgewater, in the County of Lunenburg, Province of Nova Scotia, this day of February, |))) |
|--|------------------------|
| A.D., 2020, BEFORE ME: | TAMMY CROWDER, CAO)) |
| A BARRISTER OF THE SUPREME COURT OF NOVA SCOTIA |))) |

AFFIDAVITS OF EXECUTION

| PROVINCE OF N COUNTY OF LUI | | |
|--|--|--|
| subscribing witnes made oath and s caused the same | ss to the foregoing aid that TOWN O | A.D., 2020, before me, the eared A.D., 2020, before me, the eared and eared and eared and eared and early sworm of BRIDGEWATER, one of the parties thereto its name and on its behalf and its corporate sea sence. |
| | | A COMMISSIONER OF THE SUPREME COURT OF NOVA SCOTIA |
| PROVINCE OF N | | |
| subscriber personally cam subscribing witness to the made oath and said that | ally came and app ss to the foregoing said that BLACK e same to be exect | A.D., 2020, before me, the eared A.D., 2020, before me, the eared and eared and eared and eared and earlies are determined in its name and on its behalf and its corporate presence. |
| | | A COMMISSIONER OF THE SUPREME COURT OF NOVA SCOTIA |

Schedule A

Description of Lands

All and singular that certain lot, piece or parcel of land situate, lying and being in the Town of Bridgewater, county of Lunenburg, Province of Nova Scotia, which parcel is more particularly described as follows:

Beginning on the northwestern side of Phoenix Street at a long iron bolt in a stone wall which is the boundary line between the lot under description and the property formerly of Mrs. Louisa Schrader and Maria Stoddart (now Kathi Shaw Petersen);

Thence running from said long iron bolt northwardly along the northwestern sideline of said Phoenix Street a distance of 75 feet more or less to the southwestern boundary of King Street;

Thence continuing in a northwesterly direction along the southwestern boundary of King Street for a distance of 42 feet six inches, more or less to the middle of a party wall which is the southeastern boundary of property formerly of June M. Cooper (now Bank of Montreal);

Thence continuing in a northwesterly direction for a distance of 23 feet six inches, more or less, to a point on the southwestern boundary line of King Street where it intersects with the southern boundary of land now or formerly of 1798824 Nova Scotia Limited;

Thence proceeding in a southwesterly direction along the southern boundary of 1798824 Nova Scotia Limited for a distance of 55 feet more or less to its point of intersection with the northernmost angle of land formerly of other land formerly of June M. Cooper (now Bank of Montreal);

Thence continuing in a southwesterly direction along the southern boundary of 1798824 Nova Scotia Limited aforesaid to its point of intersection with the northeastern boundary of land now or formerly of Kathi Shaw Petersen;

Thence proceeding in a southeasterly direction along the Kathi Shaw Petersen boundary to an iron bolt on the edge of a stone wall or in line with it;

Thence continuing in a southeasterly direction along the northeastern boundary of the Kathi Shaw Petersen property aforesaid for a distance of 60 feet more or less, or to the long iron bolt first mentioned being the place of beginning.

Subject to the restrictive covenants described in 2019 Document No. 114382329.

*** Municipal Government Act, Part IX Compliance ***

Exemption:

The parcel is exempted from subdivision approval under the Municipal Government Act because the parcel was created by a subdivision Reason for exemption:

Section 268A that is a Deemed Consolidation - (De Facto Consolidation).

DEFACTO CONSOLIDATION RECORDED JUNE 8, 2016 AS DOCUMENT NUMBER 109058207.

Schedule B



Proposed East Elevation
Scale: 1/8" = 1'-0"

Materials and workmanship shall comply with the National Building Code of Canada and authorities having jurisdiction over residential construction in Halifax County, Nova Scotia.

Verify all dimensions and report discrepancies to Habit Studio prior to commencing work.

Do not scale drawings, use dimensions as shown.

It is the builder's responsibility to acquire necessary permits, approvals and inspections.

All components are to be installed according to specific manufacturer specifications.

This drawing and the design detailed herein is the intellectual property of Habit Studio. Use of information contained in this document without the express permission of the designer is an infringment of the Copyright Act of Canada.



Renovation and Addition

493 King Street Bridgewater, NS

Black Seal Properties

Proposed East Elevation

1/8"=1'-0"

concept

2019 August 19

A8

habit studio

hello@habitstudio.ca



Proposed North Elevation
Scale: 1/8" = 1'-0"

Materials and workmanship shall comply with the National Building Code of Canada and authorities having jurisdiction over residential construction in Halifax County, Nova Scotia.

Verify all dimensions and report discrepancies to Habit Studio prior to commencing work.

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Renovation and Addition

493 King Street Bridgewater, NS

Black Seal Properties

Proposed North Elevation

1/8"=1'-0"

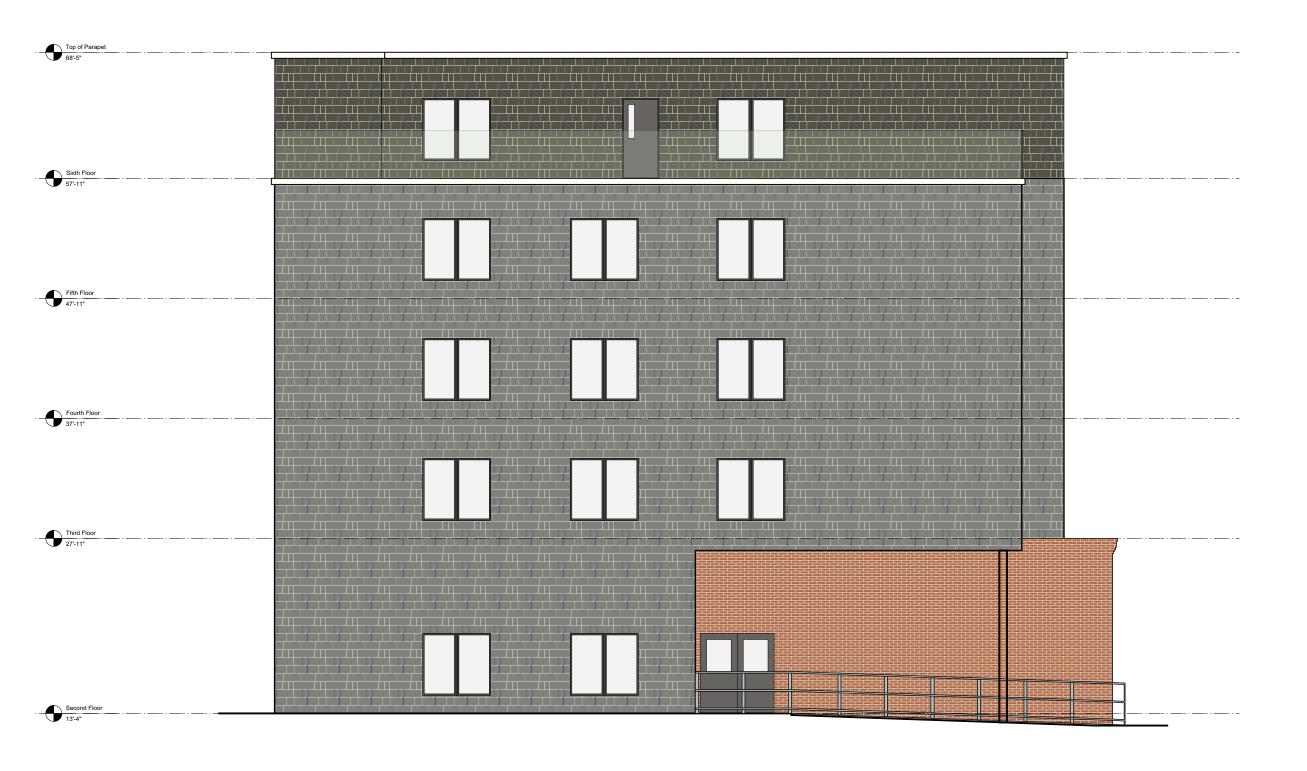
concept

2019 August 19

A9

habit studio

hello@habitstudio.ca



Ground Floor

Proposed South Elevation
Scale: 1/8" = 1'-0"

Materials and workmanship shall comply with the National Building Code of Canada and authorities having jurisdiction over residential construction in Halifax County, Nova Scotia.

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Do not scale drawings, use dimensions as shown.

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Renovation and Addition

493 King Street Bridgewater, NS

Black Seal Properties

Proposed South Elevation

1/8"=1'-0"

concept

2019 August 19

A10

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Schedule C



Proposed Second Level Plan

Scale: 1/8" = 1'-0"

Materials and workmanship shall comply with the National Building Code of Canada and authorities having jurisdiction over residential construction in Halifax County, Nova Scotia.

Verify all dimensions and report discrepancies to Habit Studio prior to commencing work.

Do not scale drawings, use dimensions as shown.

It is the builder's responsibility to acquire necessary permits, approvals and inspections.

All components are to be installed according to specific manufacturer specifications.

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Renovation and Addition

493 King Street Bridgewater, NS

Black Seal Properties

Proposed Second Level Plan

1/8"=1'-0"

concept

2019 August 19

A2

habit studio

hello@habitstudio.ca

Schedule D



5209 St. Margaret's Bay Rd., Upper Tantallon, N.S. B3Z 1E3 Phone: (902) 820-3256 Fax: (902) 273-3072

Email: m.visentin@ableinc.ca

April 16, 2020

Audrey Buchanan, P.Eng., Town of Bridgewater 60 Pleasant Street, Bridgewater, NS, B4V 3X9

Attention: Audrey Buchanan, P.Eng,

RE: Wastewater Study - Proposed Development - 493 King Street, Bridgewater, N.S.

Dear Ms. Buchanan,

The future peak wastewater flow of the proposed development as noted above was estimated following the Town of Bridgewater Specifications and in accordance with the Atlantic Canada Wastewater Guidelines Manual. The existing wastewater flow was provided by the Town of Bridgewater.

The following letter summarizes the results of a comparison of the existing wastewater flow to the future proposed wastewater peak flow that was estimated based on Concept Drawings prepared by Black Seal Properties and dated 2019 August 19. The offsetting solution proposed will involve disconnecting the existing stormwater sewer piping from wastewater sewer piping.

Future Wastewater Flow for the Proposed Development

The future wastewater flow **Qpr**, for the proposed development was estimated as follows:

Qpr = Qres + Qcom

$$Qres = 2.5 \times [(a \times M) + b] = 2.5 \times [(0.33 \times 4.328) + 11 \times 0.0491] = 4.921 \text{ m}^3/\text{day} = 0.000057 \text{ m}^3/\text{sec}$$

where: 2.5 is a safety factor

 $(a \times M) + b$ is the peak design flow

 $a \times M$ is the peak dry weather flow as identified here as the average dry

weather flow. The allowance is 0.33 m³ per person per day for

residential development.

M is the peaking factor as derived from the Harmon Formula. The

minimum permissible peaking factor shall be 2.0

 $M = 1 + \frac{14}{4 + P^{0.5}}$ P= design population in thousands. Assuming a population of

42.75/1000. Based on 19 units and 2.25 ppu.

b

is the long-term infiltration/inflow allowance. The allowable is 11 m³ per gross hectare/day. Assuming an area of 0.0491 hectares.

The wastewater flow for the proposed development's commercial space (Qcom) was estimated using information provided by the client and Table 2.1 from the Atlantic Wastewater Guidelines Manual.

Assuming a commercial space area of 278.709m².

$$Qcom = 6 L/day/m^2 \times 278.709m^2 = 1672.254 L/day = 0.0194 L/sec = 0.0000194 m3/sec$$

$$Qpr = Qres + Qcom = 0.000057m^3/sec + 0.000019m^3/sec = 0.000076m^3/sec$$

The estimated future peak wastewater flow (**Qpr**) for the proposed development at 493 King Street in Bridgewater N.S. **0.000076m³/sec.**

Existing Wastewater Flow for the Existing Building

The existing water usage for the existing building was provided by the Town of Bridgewater. The average wastewater flow was estimated for the period between March 31, 2009 to June 30, 2016 under the basic principal of water in = water out.

The average flow during this time period was 0.0000952 m³/sec (Refer to 493 King Street Water Consumption appended below).

 $Qexsa = 0.00000952 \text{ m}^3/\text{sec}$

Offsetting Solutions

A Professional Engineer from Able Engineering Services visited 493 King Street on February 25, 2020 to visually inspect the existing condition of the internal plumbing. The representative was provided access to a portion of the crawl space and noted cross connections between the wastewater and stormwater piping (Refer to *Photographs 1 and 2* appended below).

Additionally, Able Engineering was provided the *Basement Floor Plumbing Plan for the Bank of Montreal Addition dated April 1982* (Appended below) which shows combined sewer connections towards King Street. It is our understanding no additional service upgrades have been completed since the addition.

It is understood that based on Town of Bridgewater Specifications, the existing sewer connections will have to be separated during construction of the proposed development to provide separate wastewater and stormwater service to the proposed renovated building.

The elimination of the sewer cross connections observed will significantly reduce the peak flows experienced during and following rain events.

To estimate the reduction in peak flow, Able Engineering conducted a stormwater analysis based on a 24 hr 20mm precipitation event. The stormwater analysis only considered a portion of the roof, contributing

to the rainwater leader observed to be cross connected to the existing wastewater lateral leaving the building (refer to Photograph 3). The stormwater analysis followed the SCS TR-20 methodology. The results of the stormwater analysis are summarized in Table 1.0 below.

| Storm Event | Precipitation Total | Estimated Peak Flow (Qexst) | |
|--------------|---------------------|-----------------------------------|--|
| 24 hr (20mm) | 20mm | $0.000355 \text{ m}^3/\text{sec}$ | |

Table 1.0 - SCS TR-20 Results

$$Qex = Qexst + Qexsa = 0.000355m^3/sec + 0.0000952 m^3/sec = 0.0004502 m^3/sec$$

It should be noted that additional reduction in peak flows is expected, but confirmation of additional cross connections was not completed at this time.

Conclusions

The results of the wastewater study are summarized in Table 2.0 below;

| Estimated Proposed | Qpr = Qcom + Qres | 0.00076m ³ /sec |
|---------------------------------|---------------------|-----------------------------------|
| Wastewater Flow | | |
| Existing Wastewater Flow | Qex = Qexst + Qexsa | $0.000355 \text{ m}^3/\text{sec}$ |
| Difference | Qpr - Qex | -0.000279m³/sec |

Table 2.0 - Summary

During the detailed design development for this project, a Mechanical Engineer will design the internal plumbing for the proposed addition. This design will include the complete separation of the wastewater and stormwater flow from the building. Able Engineering will design two sewer laterals that will extend from the building and connect to the appropriate sewer mains within Phoenix Street. The existing sewer laterals will be abandoned to the satisfaction of the Town of Bridgewater.

Based on above, Able Engineering concludes that by eliminating the cross connection of the stormwater and wastewater piping, the proposed building renovation wastewater flow (**Qpr**) will be reduced from the existing condition during peak flow events.

We trust this information meets the requirements for the wastewater study requested by the Town of Bridgewater. Should you have any questions, or require any additional information, please contact me at anytime.

Yours truly,

Able Engineering Services Inc.

Marco Visentin, P.Eng



Photograph 1 – Existing Sump Pit.



Photograph 2 – Wastewater Lateral to King Street Cross Connection Noted. Flush Test conducted to confirm Wastewater Connection.



Photograph 3 – Roof drain that was considered for the existing stormwater flow estimate.

| 493 KING STREET WATER CONSUMPTION (CUBIC METERS) | | | | | |
|--|----------|------------------|--|-----------------------|--------------------|
| READING DATE | READING | CONSUMPTION | TIME BETWEEN READINGS (DAYS) | CONSUMPTION (m^3/DAY) | CONSUMPTION (m^3/s |
| 03/31/2009 | 1,052.00 | | 90 | | |
| 06/30/2009 | 1,127.00 | 75.00 | 91 | 0.824 | 0.000009539 |
| 09/30/2009 | 1,171.00 | 44.00 | 92 | 0.478 | 0.00000553 |
| 12/31/2009 | 1,223.00 | 52.00 | 92 | 0.565 | 0.000006542 |
| 03/31/2010 | 1,284.00 | 61.00 | 90 | 0.678 | 0.00000784 |
| 06/30/2010 | 1,346.00 | 62.00 | 91 | 0.681 | 0.0000788 |
| 09/30/2010 | 1,406.00 | 60.00 | 92 | 0.652 | 0.00000754 |
| 12/31/2010 | 1,465.00 | 59.00 | 92 | 0.641 | 0.00000742 |
| 03/31/2011 | 1,549.00 | 84.00 | 90 | 0.933 | 0.00001080 |
| 06/30/2011 | 1,641.00 | 92.00 | 91 | 1.011 | 0.00001170 |
| 09/30/2011 | 1,721.00 | 80.00 | 92 | 0.870 | 0.00001006 |
| 12/31/2011 | 1,831.00 | 110.00 | 92 | 1.196 | 0.00001383 |
| 03/31/2012 | 1,939.00 | 108.00 | 91 | 1.187 | 0.00001373 |
| 06/30/2012 | 2,055.00 | 116.00 | 91 | 1.275 | 0.00001475 |
| 09/30/2012 | 2,175.00 | 120.00 | 92 | 1.304 | 0.00001170 |
| 12/31/2012 | 2,282.00 | 107.00 | 92 | 1.163 | 0.00001346 |
| 03/31/2013 | 2,373.00 | 91.00 | 90 | 1.011 | 0.00001170 |
| 06/30/2013 | 2,454.00 | 81.00 | 91 | 0.890 | 0.00001030 |
| 09/30/2013 | 2,529.00 | 75.00 | 92 | 0.815 | 0.00000943 |
| 12/31/2013 | 2,596.00 | 67.00 | 92 | 0.728 | 0.00000842 |
| 03/31/2014 | 2,654.00 | 58.00 | 90 | 0.644 | 0.00000745 |
| 06/30/2014 | 2,725.00 | 71.00 | 91 | 0.780 | 0.00000903 |
| 09/30/2014 | 2,807.00 | 82.00 | 92 | 0.891 | 0.00001031 |
| 12/31/2014 | 2,876.00 | 69.00 | 92 | 0.750 | 0.00000868 |
| 03/31/2015 | 2,929.00 | 53.00 | 90 | 0.589 | 0.00000681 |
| 06/30/2015 | 2.990.00 | 61.00 | 91 | 0.670 | 0.00000775 |
| 09/30/2015 | 3,049.00 | 59.00 | 92 | 0.641 | 0.00000712 |
| 12/31/2015 | 3,105.00 | 56.00 | 92 | 0.609 | 0.00000742 |
| 03/31/2016 | 3,169.00 | 64.00 | 91 | 0.703 | 0.00000704 |
| 06/30/2016 | 3,230.00 | 61.00 | 91 | 0.670 | 0.00000775 |
| 09/30/2016 | 3,230.00 | 0.00 | 92 | 0.000 | 0.00000773 |
| 12/31/2016 | 3,296.00 | 66.00 | 92 | 0.717 | 0.00000830 |
| 03/31/2017 | 3,445.00 | 149.00 | 90 | 1.656 | 0.00001916 |
| 06/30/2017 | 3,581.00 | 136.00 | 91 | 1.495 | 0.00001729 |
| 09/30/2017 | 3,706.00 | 125.00 | 92 | 1.359 | 0.00001729 |
| 12/31/2017 | 3,798.00 | 92.00 | 92 | 1.000 | 0.00001372 |
| 03/31/2018 | 3,863.00 | 65.00 | 90 | 0.722 | 0.00001137 |
| 06/30/2018 | 3,904.00 | 41.00 | 91 | 0.451 | 0.00000521 |
| 09/30/2018 | 3,904.00 | 2.00 | 92 | 0.431 | 0.00000321 |
| 12/31/2018 | 3,941.00 | 35.00 | 92 | 0.380 | 0.00000440 |
| 03/31/2019 | 3,941.00 | 29.00 | 90 | 0.300 | 0.00000372 |
| 04/30/2019 | -, | Ownership Change | 30 | 0.000 | 0.00000372 |
| 30/06/2019 | 3,973.00 | 3.00 | 61 | 0.000 | 0.0000000 |
| 30/09/2019 | 3,973.00 | 0.00 | 92 | 0.049 | 0.00000000 |
| 31/12/2019 | 4.002.00 | 29.00 | 92 | 0.000 | 0.0000000 |
| 31/12/2019 | 4,002.00 | 29.00 | Average From 03/31/2009 to 06/30/2016 = | 0.822 | 0.00000364 |
| | | | Average FIUIII 03/3 1/2009 (0 00/30/2016 = | 0.822 | 0.0000952 |

