

1994 Scott Street

Functional Servicing Report



Prepared for:
Westboro Village

Date:
December 12, 2025

Prepared by:
Stantec Consulting Ltd.

Project/File:
160402015

Revision Record

Revision	Description	Author	Date	Quality Check	Date	Independent Review	Date
00	Issued for ZBLA	Michael Wu	9-Dec-2025	Dustin Thiffault	12-Dec-2025	Alyssa Gladish	10-Dec-2025

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1 Introduction

Stantec Consulting Ltd. (Stantec) has been commissioned by Westboro Village to prepare the following functional services report in support of a Zoning By-law Amendment (ZBLA) application to permit a proposed mixed-use development located at 1994 Scott Street in the City of Ottawa.



Figure 1.1: Key Plan of Site

Westboro Village is proposing a mixed-use development of three (3) parcels as part of the Transit-Oriented Development (TOD) adjacent to the future O-Train Westboro Station with a total redeveloped area measuring about 0.8 ha. A fourth parcel, shown above as part of Site C, will become a Parkland Dedication to be assumed by the City of Ottawa following construction. All four parcels have existing residential



buildings within their respective property areas, all of which will be removed to allow for the proposed redevelopment. The area of the redevelopment is currently zoned Residential Fourth Density (R4UB) and Traditional Main Street (TM [102]).

The three redeveloped parcels comprise of Parcel 'A' along the west side of Tweedsmuir Avenue, Parcel 'B' along the west side of Athlone Avenue, and Parcel 'C' along the east side of Tweedsmuir Avenue. The overall site is bound by Scott Street to the north, and existing and under construction mixed-use and residential development to the east, west, and south, as shown in **Figure 1.1**.

The proposed Overall Site Plan, provided by RLA / Architecture (RLA), **Appendix A.1**, comprises of three mixed use high-rise buildings, one four-storey low-rise residential building, and an allocation of parkland, while the preliminary mixed-use attributes are included in **Table 1.1**.

Table 1.1: Preliminary Attributes of Proposed Development

Use/Attribute	Building A1	Building A2	Building B	Building C	Total
Above Ground Stories	40	4	29	29	-
Underground Parking Levels	6	-	5	4	-
Commercial Area (m ²)	167	-	322	-	-
Building Properties					
Parcel Area (m ²)	2,107	1,491	1,650	2,485	7,734
Studio	142	6	82	70	300
1 Bedroom	283	11	88	79	461
1 Bedroom + Den	20	15	57	94	186
2 Bedroom	104	10	30	36	180
2 Bedroom + Den	-	1	29	33	63
3 Bedroom	6	-	4	6	16
Total Residential Units	555	43	290	318	1,206



1.1 Objectives

This functional report presents a preliminary servicing scheme and preliminary stormwater management (SWM) concept that is free of conflicts and is generally consistent with the City of Ottawa Design Guidelines. Additional design criteria are outlined in the pre-consultation meeting minutes.

Details of the existing infrastructure located within the Scott Street, Tweedsmuir Avenue, and Athlone Avenue rights of way (ROWs) are obtained from available as-built drawings from the City of Ottawa and site topographic survey by Stantec Geomatics Ltd. (completed September 5, 2024, **Appendix A.2**). Criteria and constraints provided by the City of Ottawa are used as a basis for the preliminary servicing design supporting the proposed development. Preliminary general and applicable site-specific objectives are summarized below. Specific technical design criteria details are described in the associated servicing sections of this report.

Scott Street currently has a road cut moratorium (for another 2+ years). For servicing connections to the Scott Street infrastructure, early servicing could be done with an Early Servicing Agreement (Legal) and with fees paid in advance of registration and after approval of servicing proposal (Brief and plans). In this functional servicing study we will evaluate the feasibility of servicing building A1 from Scott Street, however, if alternative servicing connections are found to be adequate, then the alternatives will be selected, to avoid the additional costs and risks associated with servicing connections to Scott Street.

Water Servicing

- Develop a high-level assessment of the water and fire flow demands for the parcels.
- Confirm that the existing 150 mm diameter municipal watermains in Athlone and Tweedsmuir Avenue and 200 mm diameter municipal watermain in Scott Street can supply adequate water pressure for typical operational and emergency conditions.

Wastewater Servicing

- Development a functional assessment of the peak wastewater flow from the development.
- Identify that the City of Ottawa sanitary sewer system has the capacity to receive the projected peak wastewater flows from the development through correspondence with City of Ottawa staff.

Stormwater Management and Servicing

- Identify allowable stormwater flow conditions from the site to the adjacent storm sewer system and applicable water quality control targets.
- Develop a functional assessment of the stormwater management system for the development to meet the applicable water quantity (minor and major systems) control targets.
- Identify future quality control requirements.



Grading

- Prepare a preliminary grading plan to support the proposed site plan, servicing assessments, and identify compatibility with existing conditions along the site boundaries.

Other information associated with utilities, approval processes, and the geotechnical investigation is also included herein. To demonstrate the feasibility of servicing and stormwater management at a functional level, the accompanying Drawings and Figures illustrate the preliminary servicing scheme for the development. To reflect changes in design conditions, related objectives, and/or assessment findings may be adjusted as needed through subsequent stages of the development application process.

2 Background Resources

Documents referenced in preparation of the high-level design for the proposed development include:

- *City of Ottawa Sewer Design Guidelines* (SDG), City of Ottawa, October 2012, including all subsequent technical bulletins
- *City of Ottawa Design Guidelines – Water Distribution*, City of Ottawa, July 2010, including all subsequent technical bulletins
- *Design Guidelines for Drinking Water Systems*, Ministry of the Environment, Conservation, and Parks (MECP), 2008
- *Design Guidelines for Sewer Systems*, Ministry of the Environment, Conservation, and Parks (MECP), 2008
- *Water Supply for Public Fire Protection*, Fire Underwriters Survey (FUS), 2020
- *1994 Scott Street Proposal – PAC1 Debrief & Civil Servicing Review Memo*, Stantec Consulting Ltd., January 2024
- *Pre-Consultation: Meeting Feedback Proposed Zoning By-law Amendment and Site Plan Control Application – 1994 Scott Street*, City of Ottawa PC2023-0346, December 8, 2023



3 Water Servicing

3.1 Existing Conditions

The redeveloped area is in Pressure Zone “1W” of the City of Ottawa’s water distribution network. The existing municipal watermains adjacent to the redevelopment area comprise of a 150 mm diameter UCI local watermain in Athlone Avenue, and a 150 mm diameter PVC local watermain in Tweedsmuir Avenue. Connection options for building A1 to the local watermain on Scott Street were considered in the analysis, but due to the road cut moratorium on Scott Street, this option was eliminated.

3.2 Design Criteria

3.2.1 Potable Water Demands and Pressures

Preliminary water demands are estimated using the City of Ottawa Water Distribution Guidelines (2010) as amended, and ISTB 2021-03 Technical Bulletin (see detailed calculations in **Appendix C.1**).

Residential Apartment Population Rate

Studio and One Bedroom	1.4 persons / unit
One Bedroom w/ Study and Two Bedroom	2.1 persons / unit
Three Bedroom	3.1 persons / unit

Residential Apartment Demand

Average Daily (AVDY)	280 L/cap/day
Maximum Daily (MXDY)	$2.5 \times$ AVDY
Peak Hour (PKHR)	$2.2 \times$ MXDY

Commercial Area Demand

Average Daily (AVDY)	28,000 L/gross ha/day
Maximum Daily (MXDY)	$1.5 \times$ AVDY
Peak Hour (PKHR)	$1.8 \times$ MXDY

Allowable Water Pressure

MXDY Flow	345 kPa (50 psi) to 552 kPa (80 psi)
PKHR Flow Minimum	276 kPa (40 psi)
MXDY + Fire Flow	140 kPa (20 psi)
Maximum Allowable for Occupied Area	552 kPa (80 psi)



3.2.2 Fire Flow and Hydrant Capacity

Preliminary fire flow requirements are assessed using the Fire Underwriters Survey (FUS) methodology (2020), while fire hydrant capacity is outlined in NFPA Table 1 Table 18.5.4.3 in Appendix I of the City of Ottawa Technical Bulletin ISTB-2018-02.

3.3 Water Demands

3.3.1 Domestic Water Demands

The estimated demands for the development are summarized in the table below and detailed in **Appendix B.1**. At this functional level design stage, commercial demands were estimated using the gross parcel areas of the individual building parcels. Furthermore, commercial/institutional demands were applied to the park parcel for a conservative estimate of the water demands.

Table 3.1: Estimated Water Demands

Demand Type	Population	Area (ha)	AVDY (L/s)	MXDY (L/s)	PKHR (L/s)
Commercial	-	0.6	6.7	16.8	37.1
Residential	2,079	-	0.2	0.3	0.5
Total			6.9	17.1	37.6

3.3.2 Fire Flow Demand

The fire flow demands of the development are determined through the 2020 Fire Underwriter's Survey (FUS). The three high-rise towers are to be of non-combustible construction, have a two-hour fire resistance rating of all structural elements, be fully sprinklered with a supervised sprinkler system to the NFPA 13 standard, and to have full protection of all vertical openings (one hour fire rating).

Accounting for the limited fire flows available in the watermain in Tweedsmuir Avenue, correspondence with the architect confirmed that the construction for the low-rise Building A2 can be of non-combustible construction with a supervised sprinkler system to the NFPA 13 standard (see **Appendix A.3**).

The preliminary worst-case required fire flow (RFF) for Buildings A1 and A2 is calculated to be 83 L/s while Buildings C and B have an RFF of 67L/s. See **Appendix B.2** for the FUS calculations.

3.4 Available Level of Service

3.4.1 Boundary Conditions

The assessed domestic water and fire flow demands are used to confirm the level of servicing available for the proposed development from the adjacent watermain and hydrants. **Table 3.2** outlines the boundary



conditions provided by the City of Ottawa on September 5, 2025 (see **Appendix B.3**), for each of the projected connection locations.

Table 3.2: Boundary Conditions

Connection	Athlone Avenue	Tweedsmuir Avenue
Minimum HGL (m)	108.3	108.3
Maximum HGL (m)	114.6	114.6
B & C MXDY + FF (67 L/s) (m)	83.0	103.8
A1 & A2 MXDY + FF (83 L/s) (m)	-	103.5

The maximum available fire flow at 20 psi under existing conditions is 72 L/s on Athlone Avenue and 180 L/s on Tweedsmuir Avenue.

3.4.2 Allowable Pressures

The preliminary finished floor elevation for the ground floor of each building serves as the reference elevation for the calculation of residual pressures at ground level. From the boundary condition for HGL elevations, the residual pressures anticipated at the ground level of the buildings are expected to be within the acceptable range for domestic demands and fire flow scenarios.

Table 3.3: Estimated Ground-Level Residual Pressures Under Normal and Emergency Flow Conditions

Building	Preliminary FFE (m)	Functional Water Service Connection	Minimum Normal Pressure (psi)	Maximum Normal Pressure (psi)	MXDY + FF Pressure (psi)
A1	63.55±	Tweedsmuir Avenue	63.6	72.6	56.8
A2	64.00±	Tweedsmuir Avenue	63.0	71.9	56.2
B	63.10±	Athlone Avenue	64.3	73.2	28.1
C	64.00±	Tweedsmuir Avenue	63.0	71.9	56.6

The anticipated pressures should not exceed the maximum allowable for occupied areas under the potential maximum pressure condition, therefore pressure reducing measures are not anticipated to be required.

To ensure adequate water pressure above the first-floor elevation of the apartment buildings, booster pump requirements are to be confirmed by the mechanical engineering consultant during subsequent stages of the development application process.

3.4.3 Fire Flow Pressures

The provided boundary conditions indicate the maximum available fire flows of 72 L/s and 180 L/s at Athlone Avenue and Tweedsmuir Avenue respectively at the minimum 20 psi residual pressure. The HGL



elevations provided show that the water distribution systems can provide the required fire flows for the site while maintaining a minimum residual pressure of 138 kPa (20 psi).

3.4.4 Fire Hydrant Coverage

There are three existing hydrants in the proximity of the proposed redevelopment area. The buildings are sprinklered and will each be equipped with a Siamese (fire department) connection. Per Section 3.2.5.15 of the Ontario Building Code (OBC), the distance between a hydrant and a building Siamese connection cannot exceed 45 m.

According to the NFPA 1 Table 18.5.4.3 in Appendix I of the City of Ottawa Technical Bulletin ISTB-2018-02, a hydrant situated less than 76 m away from a building can supply a maximum capacity of 5,678 L/min, while one located between 76 m and 152 m away from the building can supply a maximum capacity of 3,785 L/min. Each of the four buildings are located within an unobstructed 45-metre distance from one of the three existing hydrants. The maximum required fire flow for the buildings is 83.3 L/s (5,000 L/min). As such, the required fire flow for each building can be achieved with the nearest single existing fire hydrant.

The fire hydrant coverage is shown in **Drawing SSP-1**, which in combination with Section 3.2.5.15 of the OBC, shall inform the locations of the Siamese connections for each building at detailed design.

3.5 Preliminary Water Servicing

The domestic water and fire flow analysis based on the City of Ottawa Design Guidelines and the boundary conditions provided by the City, have demonstrated that Building B can be adequately serviced from the existing 150 mm diameter watermain on Athlone Avenue, and Buildings A1, A2, and A3 can be adequately serviced from the existing 150 mm diameter watermain on Tweedsmuir Avenue. The existing municipal infrastructure is anticipated to provide adequate fire and domestic flows for the development.

The three high-rise towers in the development are each to be serviced by two 150 mm diameter building service laterals separated by an isolation valve in the main. The low-rise (Building A2) will be serviced by a single 150 mm diameter water service lateral. The preliminary water servicing is shown on Drawing SSP-1.

In subsequent stages of the development application process the mechanical engineering consultant is responsible for the internal plumbing design, confirming the service lateral sizes, and determining internal pumping requirements to ensure the water pressures within each building are adequate to meet building code requirements.

4 Wastewater Servicing

4.1 Existing Conditions

The existing municipal sanitary sewers adjacent to the site includes a pair of local concrete sanitary sewers (one 300 mm diameter, the other 375 mm diameter) along Athlone Avenue, a 375 mm diameter local PVC sanitary sewer along Tweedsmuir Avenue, and the 1500 mm diameter concrete Nepean Sanitary Collector



along Scott Street. A direct connection to the Nepean Sanitary Collector sewer is not recommended. The three local sanitary sewers ultimately contribute to the Nepean Sanitary Collector along Scott Street.

4.2 Design Criteria

Preliminary wastewater peak flows from the proposed development are assessed using the City of Ottawa Sewer Design Guidelines (2012) as amended, and the MECP Design Guidelines for Sewage Works. The following design criteria are considered with the assessment of wastewater servicing for the site.

Population criteria are the same as that applied for the water demand estimate.

Wastewater Flow

Residential Average Flow Generation	280 L/cap/day
Residential Peaking Factor	Harmon Equation (max. residential = 4.0)
Harmon Correction Factor	1.8 × MXDY
Commercial Average Flow Generation	28,000 L/gross ha/day
Commercial Peaking Factor	1.5

Sewer Design

Minimum Velocity	0.6 m/s (0.8 m/s for upstream sections)
Maximum Velocity	3.0 m/s
Minimum Service Size	135 mm
Manning Roughness Coefficient	0.013
Minimum Service Slope	1.0 % (2.0 % preferred)
Minimum Service Cover	2.0 m

4.3 Functional Wastewater Servicing Design

The peak wastewater flow is assessed based on the current site plan, the unit breakdown as shown in **Table 1.1**, and the design criteria described. The estimated wastewater peak flow generated from the proposed development and projected population is summarized in **Table 4.1** and detailed in **Appendix C.1**.



Table 4.1: Estimated Total Wastewater Peak Flow

Street	Building	Residential			Commercial Flow (L/s)	Infiltration Flow (L/s)	Peak Flow (L/s)
		Population	Peak Factor	Flow (L/s)			
Tweedsmuir	A1, A2, C	1556	-	16.7	0.2	0.2	17.1
Athlone	B	523	3.37	5.7	0.1	0.1	5.8
Total	-	2079	-	22.4	0.3	0.3	23.0

The estimated peak flows were provided to the City of Ottawa staff to evaluate the adequacy of the receiving municipal sanitary sewer system in the vicinity of the site and downstream network. As part of the initial evaluation of adequacy of services detailed in the debrief memo, the City has confirmed that the 375 mm diameter sanitary sewer in Tweedsmuir Avenue has adequate capacity to receive 17.3 L/s of sanitary peak flows from the study area, while the 300 mm diameter west sanitary sewer in Athlone Avenue has capacity to receive 6.4 L/s. The peak sanitary flows are anticipated to be 17.1 L/s to Tweedsmuir Avenue and 5.8 L/s to Athlone Avenue from the current Site Plan design, as such the municipal sanitary sewer system is confirmed to have adequate capacity to service the proposed development (see **Appendix C.2** for correspondence).

4.4 Preliminary Sanitary Servicing

Each building and the park parcel will be serviced by a 250 mm diameter sanitary service lateral. Buildings A1, A2, C, and the park services will be connected to the 375 mm diameter sanitary sewer in Tweedsmuir Avenue, while Building B will be connected to the 300 mm diameter west sanitary sewer in Athlone Avenue.

The preliminary sanitary servicing is shown on **Drawings SSP-1 and SA-1**. A new manhole is proposed at the location of each service lateral connection to the main sewer. The sanitary service laterals for Building A2 and the park parcel will each include a sanitary monitoring manhole. Due to site constraints for Buildings A1, B, and C, we are requesting an exception from the Sewer Use Bylaw to use sanitary inspection chambers on each service lateral rather than the full-sized sanitary monitoring manhole.

In subsequent stages of the development application process the mechanical engineering consultant is responsible to confirm the service sizes and the appropriate backwater valve requirements to satisfy OBC and City of Ottawa requirements. The mechanical engineering consultant will also be responsible for the design of and sanitary sump pit/pump requirements to service the subsurface levels.



5 Stormwater Management and Servicing

5.1 Background

Tweedsmuir Avenue, Athlone Avenue, and Scott Street have urban roadway sections complete with major and minor storm drainage systems, including curbs, gutters, and catch basins. The municipal storm sewers adjacent to the site include the 750 mm diameter storm sewer in Athlone Avenue, the 1200 mm diameter storm sewer in Tweedsmuir Avenue, and the 1050 mm diameter storm sewer in Scott Street. The twin 3800 mm x 2400 mm box storm sewer in the future O-Train trench is the receiving downstream sewer for the area.

Existing catch basins were identified along the east (rear) property line of the Building C site. During detailed design, this infrastructure will need further evaluation to identify the extents and outlet; as well as devise a plan for protection or relocation.

5.2 Design Criteria

Preliminary stormwater management (SWM) and storm sewer servicing is assessed using the City of Ottawa Sewer Design Guidelines (2012) as amended, and the pre-application consultation notes provided by the City of Ottawa (**Appendix A.4**). The following design criteria are considered with the assessment of SWM and storm sewer servicing for the site.

General

- Use of the dual drainage principle.
- Wherever feasible and practical, site-level measures should be used to reduce and control the volume and rate of runoff.
- Consider the impact of 100-year event outlined in the City of Ottawa Sewer Design Guidelines on the major and minor drainage systems.

Storm Sewer and Inlet Controls

- The pre-consultation feedback (2023) indicated that “*for a combined sewer system, a maximum pre-development C coefficient of 0.4 or the pre-development C value, whichever is less*”. We have verified that all adjacent sewers and downstream sewers are now separated sewers. As the site is in a separated sewer system, we have proceeded with the stormwater management analysis assuming a maximum pre-development C coefficient of 0.5, or the pre-development C value, whichever is less, will be suitable for this site.
- Discharge for each storm event to be restricted to a 2-year storm event pre-development rate
- Peak flows generated from events greater than the 2-year and including the 100-year storm must be detained onsite.



- Time of flow for modified rational method calculations should be not less than 10 minutes.

Surface Storage and Overland Flow

- Building openings to be a minimum of 0.30 m above the 100-year water level.
- Maximum depth of flow under either static or dynamic conditions shall be less than 0.30 m.
- Provide adequate emergency overflow conveyance off-site with a minimum vertical clearance of 0.15 m between the spill elevation and the ground elevation at the building envelope in the proximity of the flow route or ponding area.
- Infiltration and/or LID features are to be considered as the City is attempting to reduce the pressure on the Storm sewer system.

Stormwater Quality Control

- Requirements for stormwater Quality Control are not anticipated for this development site. See **Section 5.4.3** for additional information.

5.3 Existing Conditions

The 0.8 ha redevelopment area currently consists of existing 1-2 storey residential buildings with grassed yards and paved driveways. The front yards drain to the street catch basins on Athlone Avenue and Tweedsmuir Avenue and discharge into the existing storm sewer system. All the roofs of the residential buildings are peaked roofs. The rear yards drain uncontrolled towards the respective property lines before turning north.

The overall pre-development imperviousness of the site is calculated at 55 % ($C = 0.59$). Hence, we will proceed with the lesser pre-development runoff coefficient of $C=0.5$ for separated sewer systems.

5.4 Stormwater Management Functional Design

Preliminary runoff coefficient values for storm sewer design calculations and imperviousness allocations are assigned to each drainage area based on the anticipated finished surfaces (e.g., asphalt, concrete, gravel, grass, etc.) shown in the Overall Site Plan. The drainage areas and runoff coefficients are summarized in table and detailed in **Appendix D.1**.

Table 5.1: Post-Development Catchment Areas

Catchment Areas	Area (ha)	C	Outlet
R1A	0.11	0.90	750 mm Storm Sewer (Athlone Ave. ROW)
L1B	0.04	0.80	750 mm Storm Sewer (Athlone Ave. ROW)
R2A	0.08	0.90	1200 mm Storm Sewer (Tweedsmuir Ave. ROW)



Catchment Areas	Area (ha)	C	Outlet
L2B	0.03	0.80	1200 mm Storm Sewer (Tweedsmuir Ave. ROW)
R3A	0.15	0.90	1200 mm Storm Sewer (Tweedsmuir Ave. ROW)
L3B	0.04	0.80	1200 mm Storm Sewer (Tweedsmuir Ave. ROW)
R4A	0.13	0.90	1200 mm Storm Sewer (Tweedsmuir Ave. ROW)
L4B	0.02	0.80	1200 mm Storm Sewer (Tweedsmuir Ave. ROW)
G5A	0.08	0.40	1200 mm Storm Sewer (Tweedsmuir Ave. ROW)
UNC-1	0.02	0.80	Athlone Ave. ROW
UNC-2	0.01	0.80	Athlone Ave. ROW
UNC-3	0.01	0.80	Tweedsmuir Ave. ROW
UNC-4	0.03	0.80	Tweedsmuir Ave. ROW
UNC-5	0.02	0.80	Tweedsmuir Ave. ROW

Catchment Area G5A is a dedicated parkland area that will ultimately be conveyed to the City, as such, it is excluded from the SWM design. Only the total *developable* site area (0.69 ha, C=0.87) will be considered for the storage and release rate calculations.

5.4.1 Allowable Release Rate

The rational method equation ($Q = 2.78 Cia$) is used to assess the allowable pre-development release rate from the site. The following parameters are used to assess the allowable release rate.

- A pre-development runoff coefficient of 0.50 is applied to establish the allowable release rate.
- Rainfall intensity is for the City of Ottawa 2-year design storm. A time of concentration of ten minutes is applied based on the small size of the individual sites and their proximity to the existing drainage system. The resultant intensity is 76.8 mm/hr.
- Contributing area is for the post-development areas draining to Athlone Avenue and Tweedsmuir Avenue.

Table 5.2: Allowable Target Release Rate

Building Site	Total Area (ha)	2-Year Pre-Development Flow Rate (L/s)	
		C=0.50, i=76.8 mm hr	
Site A1	0.225	24.0	
Site A2	0.133	14.2	
Site B	0.165	17.6	
Site C	0.170	18.2	



The overall target allowable release rate for each building site will be equated to the 2-year pre-development flow rate. These rates will be used to determine the functional stormwater quantity control measures. Each site was considered separately in case of future sale of the individual sites.

5.4.1.1 Uncontrolled Areas

Given the limitations of the grading on the sites and existing topography, 0.1 ha of uncontrolled drainage is anticipated from the building sites.

Relative to the existing site condition with no known runoff control, a post-development 2-year flow control for 0.59 ha of the redeveloped area is anticipated to reduce the total 100-year stormwater discharge from the site, as demonstrated in **Table 5.3**.

Table 5.3: Comparison of Pre- and Post-Development Release Rates for Development Area

Drainage Area	100-Year Discharge
Pre-Development Release Rates	
Pre-Development Total (0.69 ha)	172.0
Post-Development Release Rates	
Uncontrolled (0.10 ha)	49.1
Controlled (0.59 ha)	24.9
Post-Development Total (0.69 ha)	74.0
Difference (Post minus Pre)	-98.0 (-57%)

5.4.2 Quantity Control

Based on the proposed modifications to the site conditions, quantity control measures are needed to manage stormwater runoff to the allowable 2-year pre-development runoff flow rate.

A spreadsheet approach using the modified rational method (MRM) is applied to assess the quantity control volume required to control the 100-year post-development runoff rate to the 2-year pre-development runoff rate. The calculations consider the allowable release rates and the runoff coefficient associated with the anticipated post-development catchments. The MRM calculations used to establish the storage volume requirements are provided in **Appendix D.1**.

The total preliminary storage volume required for each Building Site is summarized in **Table 5.4**. The 100-year event storage requirements shall be considered as the preliminary storage requirements for each site to attenuate the release rates from all storm events up to and including the 100-year event to the 2-year pre-development runoff rate.

Stormwater detention storage is intended to be achieved onsite using a combination of rooftop storage, stormwater cisterns located in the underground parking levels, and some is to be accommodated externally to the buildings, where feasible. The preliminary storage volumes are considered reasonable and



achievable on each site. The specific storage methods and precise volumes shall be confirmed through subsequent stages of the development application process.

Table 5.4: Summary of Stormwater Management and Storage Requirements

Building Site	Peak Uncontrolled Flow (L/s)	Peak Controlled Release Rate (L/s)	Total Release Rate (L/s)	Target Release Rate (L/s)	Required Storage (m ³)
2-Year					
Site A1	5.9	7.0	12.8	24.0	21
Site A2	4.2	6.7	10.9	14.2	9
Site B	3.9	6.3	10.2	17.6	14
Site C	3.6	7.7	11.3	18.2	14
100-Year					
Site A1	17.0	7.0	24.0	24.0	82
Site A2	7.5	6.7	14.2	14.2	41
Site B	11.3	6.3	17.6	17.6	57
Site C	10.5	7.7	18.2	18.2	57

5.4.3 Infiltration and Low Impact Development (LID)

Infiltration and at-grade low impact development (LID) features were considered conceptually for this site as a best management practice. Due to the presence of the underground parking structures, infiltration and at-grade LID features will not be feasible in parcels A1, B, and C. Building A2 may have some infiltration potential; however, given the proximity of Site A to adjacent structures and foundations, it is unlikely that a formal LID feature will be feasible at-grade. A degree of stormwater filtration may be achieved if amended soils are used in vegetated areas onsite. However, stormwater quantity control in this development will need to rely on more traditional engineering methods.

5.4.4 Quality Control

We do not anticipate quality control measures will be required for this site, given that the overall Site Plan does not include any significant sources of contamination. No surface parking is proposed onsite and the drainage for the underground parking structures will be directed to the sanitary sewers. Specific quality control measures are to be confirmed through subsequent stages of the development application process.

If quality control is required at a later stage of the development, an engineered structure, such as an oil-grit-separator (OGS) or Jellyfish Filter (JF6) will be provided for the Total Suspended Solids (TSS) removal design criteria. Due to the proximity of the foundation wall to the front property line, there is insufficient space for the quality control structure to be located external to the building. Consequently, the structure will be located within the underground parking level P1, per correspondence with the architect on December 9, 2025 (see **Appendix D.3**). Sufficient clearance, turn radii, and structural design shall be provided in the underground parking to allow for pumper truck access to the indoor quality control unit for maintenance and



cleaning purposes. The specific quality control methods shall be confirmed through subsequent stages of the development application process.

5.5 Preliminary Stormwater Servicing

Each building parcel and the parkland area is to be serviced with a 300 mm connection to the existing storm sewers, with Buildings A1, A2, and C to be serviced from Tweedsmuir Avenue, and Building B from Athlone Avenue. The preliminary locations of the proposed storm sewer infrastructure are shown in **Drawings SSP-1** and **SD-1**. Connections and service requirements are to be consistent with City of Ottawa guidelines and specifications.

With the underground parking levels, it is likely that the foundation drainage will require sump pit/pump systems in Buildings A1, B, and C, while the requirements for Building A2 may differ. Foundation drainage requirements will be confirmed through subsequent stages of the development application process.

The final sizing and layout of the infrastructure, including the method(s) of flow attenuation and storage conditions outside the building envelope, shall be confirmed through subsequent stages of the development application process.

In subsequent stages of the development application process the mechanical engineering consultant is responsible to confirm the service size, that the appropriate backwater valve requirements are satisfied, the nature of the foundation drainage system, and that any roof drainage systems (including internal storage systems, roof drains, scuppers, etc.) or cisterns are adequate for accommodating the 100-year design storm conditions.



6 Grading

A functional grading plan (see **Drawing GP-1**) is provided to satisfy the stormwater management requirements, as detailed in **Section 5**. The functional grading scheme considers emergency overland flow routes required for stormwater management and anticipated cover requirements over sanitary and storm sewers; it provides preliminary high and low point elevations in critical areas to demonstrate the overall drainage patterns.

The functional grading plan is aligned with the Overall Site Plan and preliminary SWM concept. The plan ties-in to existing elevations at the property lines and no drainage is directed to the adjacent properties. The pre-consultation indicated that Athlone Avenue is scheduled to undergo full road reconstruction beginning in the Spring of 2025. Depending on the construction timeline, coordination of the road reconstruction and the design and construction for Building B, which fronts Athlone Avenue, is to be considered at the detailed design phase as part of the Site Plan Control application and approval process.

Conceptual retaining walls or transitional grading areas have been identified in several locations to allow for grades to tie-in with the existing boundary elevations:

- Building B: south, west, and north property lines.
- Buildings A1 and A2: west property line
- Building C: north property line

These retaining walls or transitional grading areas may interrupt or impact existing drainage patterns in the adjacent properties. These potential impacts should be assessed and mitigated at the Site Plan Control phase.

A preliminary finished floor elevation (FFE) has been provided for each building. The preliminary grading plan shows most entrances and exits to be accessible; however, a few entrances/exits have been identified in the plans that will require risers, ramps, and/or a stepped foundation at detailed design to accommodate the grade change.



7 Other Considerations

7.1 Utilities

Existing utilities from Hydro Ottawa, Bell, Rogers, and Enbridge are anticipated to be used to service the development. The detailed design of the required utility services is to be further investigated as part of the Composite Utility Planning process, which is to follow design circulation for the servicing plans. The relocation of existing utilities which may conflict with the proposed development is to be coordinated as needed with the individual utility providers as part of the Site Plan approval process.

7.2 Erosion and Sediment Control

An overall Erosion and Sediment Control (ESC) concept plan and best management practices will be developed through subsequent stages of the development application process. The preparation of detailed and phased ESC plans and implementation of the plans is the responsibility of the Contractor.

7.3 Regulatory Approvals

The Ownership intent for this development is that each Building Site be under single ownership. Sewer pipes will not be proposed to cross property boundaries. All proposed sewers are to discharge to the existing municipal separated sewers. As such, an Environmental Compliance Approval (ECA) from the Ministry of the Environment, Conservation, and Parks (MECP) will likely not be required for the proposed development.

Requirements for the completion of registration for potential groundwater pumping with the Environmental Activity and Sector Registry (EASR) and the preparation of a Water Taking and Discharge Plan as stipulated under Ontario Regulation (O.Reg.) 63/16 are to be coordinated by the geotechnical and/or hydrogeological engineer and the excavation contractor as needed. Additionally, although not anticipated, an MECP Permit to Take Water (PTTW), required for dewatering volumes exceeding 400,000 L/day is to be coordinated by the geotechnical and/or hydrogeological engineer and the excavation contractor as needed.



8 Conclusion

The water, wastewater, and stormwater servicing conditions assessed in this report indicate that the existing public services in the vicinity of the development area and the preliminary servicing strategy are adequate to support the proposed development. In subsequent stages of the development application process following ZBLA approval, detailed designs shall be developed for the individual Building Sites as identified in this report and in the pre-consultation meeting minutes.



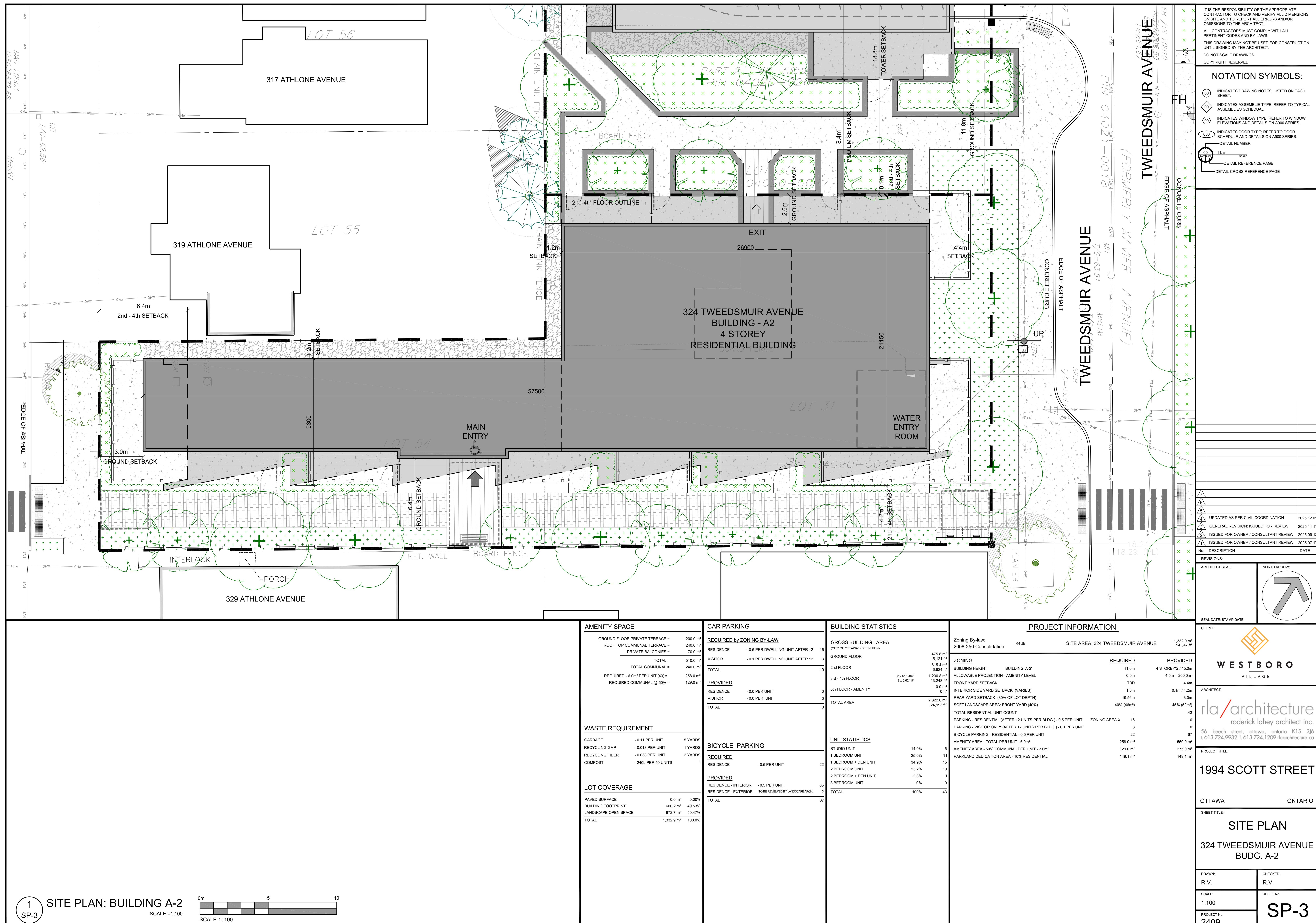
Appendices



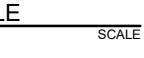
Appendix A Background

A.1 Site Plan







<u>PROJECT INFORMATION</u>			
Zoning By-law: 2008-250 Consolidation	TM [] S []	SITE AREA: 335 TWEEDSMUIR AVE.	2,485.1 m ² 26,749 ft ²
<u>ZONING</u>		<u>REQUIRED</u>	<u>PROVIDED</u>
BUILDING HEIGHT	BUILDING 'C'	6 STOREY'S / 18.0m	29 STOREY'S / 99.0m
ALLOWABLE PROJECTION - AMENITY LEVEL		0.0m	4.5m = 300.0m ²
DENSITY - MAXIMUM FLOOR SPACE INDEX		0.0	7.6
DENSITY - UNITS PER HECTARE		—	1,336
TOWER FOOTPRINT (GUIDELINE ONLY) NOT INCLUDES BALCONIES		750m ²	770.9m ²
FRONT YARD SETBACK - AVERAGE OF ADJACENT HOMES		TBD	2.0m
HIGH-RISE BUILDING SETBACK - INTERIOR SIDE YARD		10.0m	1.2m / 2.7m
HIGH-RISE BUILDING SETBACK - REAR YARD		10.0m	4.2m
TOTAL RESIDENTIAL UNIT COUNT		-	318
PARKING - RESIDENTIAL (AFTER 12 UNITS PER BLDG.) - 0.5 PER UNIT	ZONING AREA Y	153	122
PARKING - VISITOR ONLY (AFTER 12 UNITS PER BLDG.) - 0.1 PER UNIT		30	30
BICYCLE PARKING - RESIDENTIAL - 0.5 PER UNIT		159	322
AISLE & DRIVEWAY MINIMUM / MAXIMUM WIDTH		6.0m	6.0m
AMENITY AREA - TOTAL PER UNIT - 6.0m ²		1,908.0m ²	4,325.0 m ²
AMENITY AREA - 50% COMMUNAL PER UNIT - 3.0m ²		954.0m ²	1,445.0 m ²
PARKLAND DEDICATION AREA - 10% RESIDENTIAL			
IT IS THE RESPONSIBILITY OF THE APPROPRIATE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND TO REPORT ALL ERRORS AND/OR OMISSIONS TO THE ARCHITECT.			
ALL CONTRACTORS MUST COMPLY WITH ALL PERTINENT CODES AND BY-LAWS.			
THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION UNTIL SIGNED BY THE ARCHITECT.			
DO NOT SCALE DRAWINGS.			
COPYRIGHT RESERVED.			
NOTATION SYMBOLS:			
 INDICATES DRAWING NOTES, LISTED ON EACH SHEET.  INDICATES ASSEMBLIE TYPE; REFER TO TYPICAL ASSEMBLIES SCHEDUAL.  INDICATES WINDOW TYPE; REFER TO WINDOW ELEVATIONS AND DETAILS ON A900 SERIES.  INDICATES DOOR TYPE; REFER TO DOOR SCHEDULE AND DETAILS ON A900 SERIES.  DETAIL NUMBER  TITLE  SCALE  DETAIL REFERENCE PAGE			

AMENITY SPACE		BUILDING STATISTICS	
GROUND FLOOR COMMUNAL INTERIOR =	310.0 m ²		
AT GRADE COMMUNAL EXTERIOR =	400.0 m ²		
5th FLOOR COMMUNAL INTERIOR =	150.0 m ²		
5th FLOOR COMMUNAL TERRACE =	190.0 m ²		
ROOF TOP COMMUNAL INTERIOR =	165.0 m ²		
ROOF TOP COMMUNAL TERRACE =	230.0 m ²		
PRIVATE BALCONIES =	1,900.0 m ²		
PRIVATE TERRACE =	980.0 m ²		
<hr/>	<hr/>		
TOTAL =	4,325.0 m ²		
TOTAL COMMUNAL =	1,445.0 m ²		
REQUIRED - 6.0m ² PER UNIT (318) =	1,908.0 m ²		
REQUIRED COMMUNAL @ 50% =	954.0 m ²		
<hr/>	<hr/>		
WASTE REQUIREMENT			
GARBAGE	- 0.11 PER UNIT	35 YARDS	
RECYCLING GMP	- 0.018 PER UNIT	6 YARDS	
RECYCLING FIBER	- 0.038 PER UNIT	12 YARDS	
COMPOST	- 240L PER 50 UNITS		
		7	
<hr/>		<hr/>	
GROSS BUILDING - AREA			
(CITY OF OTTAWA'S DEFINITION)			
PARKING LEVEL		0.0 m ²	0 ft ²
GROUND FLOOR		0.0 m ²	000 ft ²
MEZZANINE LEVEL		0.0 m ²	000 ft ²
2nd - 4th FLOOR	3 x 1,002.0 m ²	3,005.9 m ²	32,355 ft ²
5th FLOOR - AMENITY		265.8 m ²	2,861 ft ²
4th - 9th FLOOR	4 x 820.8m ²	3,283.2 m ²	35,340 ft ²
10th FLOOR		521.4 m ²	5,612 ft ²
11th - 29th FLOOR	19 x 621.34 m ²	11,805.4 m ²	127,072 ft ²
30th - AMENITY / MECHANICAL PENTHOUSE		0 m ²	000 ft ²
<hr/>	<hr/>		
TOTAL AREA		18,881.6 m ²	203,240 ft ²
TOWER FLOOR PLATE		770.9 m ²	8,298 ft ²
TOWER BALCONY PROJECTIONS		91.2 m ²	982 ft ²

LOT COVERAGE		
	AREA / SPACE	PERCENTAGE
PARKLAND DEDICATION	780.4 m ²	31.40%
PAVED SURFACE	17.9 m ²	0.72%
BUILDING FOOTPRINT	1,007.7 m ²	40.55%
LANDSCAPE OPEN SPACE	679.1 m ²	27.33%
TOTAL	2,485.1 m²	100.0%

UNIT STATISTICS		
	PERCENTAGE	NUMBER
STUDIO UNIT	22.0%	70
1 BEDROOM UNIT	24.8%	79
1 BEDROOM + DEN UNIT	29.6%	94
2 BEDROOM UNIT	11.3%	36
2 BEDROOM + DEN UNIT	10.4%	33
3 BEDROOM UNIT	1.9%	6

<u>REQUIRED by ZONING BY-LAW</u>			
RESIDENCE	- 0.5 PER UNIT AFTER 12	153	
VISITOR	- 0.1 PER UNIT AFTER 12 (MAX. 30 PER BLDG.)	30	
<hr/>		183	
<u>PROVIDED</u>			
RESIDENCE	- 0.38 PER UNIT	122	
VISITOR	- 0.1 PER UNIT	30	
<hr/>			
<u>REVISIONS:</u>			
4 UPDATED AS PER CIVIL COORDINATION 2025 12 09			
3 GENERAL REVISION: ISSUED FOR REVIEW 2025 11 17			
2 ISSUED FOR OWNER / CONSULTANT REVIEW 2025 09 12			
1 ISSUED FOR OWNER / CONSULTANT REVIEW 2025 07 17			
No. DESCRIPTION DATE			
REVISIONS:			
ARCHITECT SEAL:			
NORTH ARROW:			

VISITOR	- 0.1 PER UNIT	30
<hr/>		
TOTAL		152
<hr/>		
LOCATION		
P4 U/G PARKING LEVEL		42
P3 U/G PARKING LEVEL		40
P2 U/G PARKING LEVEL		40
P1 U/G PARKING LEVEL		30
<hr/>		
TOTAL		152
<hr/>		
SEAL DATE: STAMP DATE		
CLIENT:		
		
W E S T B O R O		

BICYCLE PARKING			VILLAGE
<u>REQUIRED</u>			ARCHITECT:
RESIDENCE	- 0.5 PER UNIT	159	 rla / architecture roderick lahey architect inc.
<u>PROVIDED</u>			
RESIDENCE - INTERIOR	- 0.5 PER UNIT	322	56 beech street, ottawa, ontario K1S 3J6
RESIDENCE - EXTERIOR	- TO BE REVIEWED BY LANDSCAPE ARCH.	0	t. 613.724.9932 f. 613.724.1209 rlaarchitecture.ca
TOTAL		322	

LOCATION	322	PROJECT TITLE:
P4 U/G PARKING LEVEL	35	1994 SCOTT STREET
P3 U/G PARKING LEVEL	35	
P2 U/G PARKING LEVEL	35	
P1 U/G PARKING LEVEL	35	
GROUND FLOOR	34	OTTAWA
MEZZANINE LEVEL	148	ONTARIO
<hr/> TOTAL	322	SHEET TITLE:

SITE PLAN
1994 SCOTT STREET
BUDG. - C

A.2 Plan of Topographic Survey



A.3 Confirmation of Building Construction



Wu, Michael

From: Kevin Reid <kreid@rlaarchitecture.ca>
Sent: October 20, 2025 15:28
To: Gladish, Alyssa; Kevin McMahon; Liam McNairn; Wu, Michael
Cc: Wagar, Barrett
Subject: RE: 1994 Scott Street - Building A2 Fire Flow Servicing

Hi Alyssa and co.

I can confirm that if/ when we get to the point of construction for the A2 building it will be classified as sprinklered and it will be of non-combustible construction.

Kevin Reid OAA M.Arch CPHC
Director, Design & Business Development



56 Beech Street,
Ottawa, Ontario K1S 3J6
Tel: 613.724.9932 x 249 | 902.266.4307
kreid@rlaarchitecture.ca

From: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Sent: October 20, 2025 3:23 PM
To: Kevin McMahon <kevin@parkriver.ca>; Liam McNairn <lmcnairn@rlaarchitecture.ca>; Kevin Reid <kreid@rlaarchitecture.ca>; Wu, Michael <Michael.Wu@stantec.com>
Cc: Wagar, Barrett <barrett.wagar@stantec.com>
Subject: RE: 1994 Scott Street - Building A2 Fire Flow Servicing

Hello Kevin,

Understood. This is what we assumed would be best, so thank you for confirming.

I agree that details of the construction are not required at this time, but we will still need to demonstrate the adequacy of servicing for building A2.

To move forward with the functional servicing, we'll just need an email from Kevin Reid that states the type of construction that will be assumed for Building A2.

Sincerely,
Alyssa

Alyssa Gladish, E.I.T.
Project Manager



From: Kevin McMahon <kevin@parkriver.ca>

Sent: Monday, October 20, 2025 3:01 PM

To: Gladish, Alyssa <Alyssa.Gladish@stantec.com>; Liam McNairn <lmcnairn@rlaarchitecture.ca>; Kevin Reid <kreid@rlaarchitecture.ca>; Wu, Michael <Michael.Wu@stantec.com>

Cc: Wagar, Barrett <barrett.wagar@stantec.com>

Subject: Re: 1994 Scott Street - Building A2 Fire Flow Servicing

We cannot commit to spending \$2.4m to service the entire street. The building construction will need to change and/or the built form will need to change. At this stage, there's not much point in narrowing in on the details of the construction as this is just for OPA and ZBLA, so hopefully we can just include what we need to in order to finalize the application.

From: Gladish, Alyssa <Alyssa.Gladish@stantec.com>

Date: Monday, October 20, 2025 at 2:51 PM

To: Liam McNairn <lmcnairn@rlaarchitecture.ca>, Kevin Reid <kreid@rlaarchitecture.ca>, Wu, Michael <Michael.Wu@stantec.com>

Cc: Kevin McMahon <kevin@parkriver.ca>, Wagar, Barrett <barrett.wagar@stantec.com>

Subject: RE: 1994 Scott Street - Building A2 Fire Flow Servicing

Hello folks,

I hope this finds you well.

We have investigated the options to achieve the required fire flow for Building A2.

Here is a summery of our findings:

1. With the proposed wood-frame building construction, Building A2 requires 250 L/s fire flow. This is not achievable with the current 150mm watermain in Tweedsmuir Avenue. If the building construction were improved to "Type III – Ordinary Construction / Type IV-C Mass Timber Construction" or higher fire resistance construction, the existing Tweedsmuir watermain will be sufficient for the Building A2 RFF.
2. If we were to upsize the Tweedsmuir watermain from 150mm diameter to 200mm diameter, we would need to upsize the full length of the watermain from Scott Street to Richmond Road, approximately 310m length. Based on the preliminary boundary conditions received from the City, we are confident that upsizing the watermain in Tweedsmuir will provide the RFF for building A2.
 1. The watermain in Tweedsmuir is quite deep and will require significant disturbance of the existing roadway surface, and may require significant dewatering, etc., to be replaced.
 1. Approximately 26 existing service and hydrant connections will need to be replaced from the watermain to the property line along this segment. This will add additional costs for watermains, and surface restoration of the roadway, sidewalks, and curbs.
 1. Traffic management, traffic control, dewatering, erosion and sediment controls, temporary water feeds, water permits, road cut permit, new watermain commissioning, are some of the other expenses that we anticipate for this work.
 1. The current estimate of probable costs is \$2.4M for these works. Please see attached for the EOPC. We have included 40% contingency since this estimate is based on the as-built information only and does not include a true design.

Please let me know how you would like to proceed with the functional servicing of Building A2. Will it be more economic to change the building type or replace the watermain?

Best regards,
Alyssa

Alyssa Gladish, E.I.T.
Project Manager



From: Liam McNairn <lmcnairn@rlaarchitecture.ca>
Sent: Tuesday, September 23, 2025 1:37 PM
To: Kevin Reid <kreid@rlaarchitecture.ca>; Wu, Michael <Michael.Wu@stantec.com>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>; Kevin McMahon <kevin@parkriver.ca>
Subject: RE: 1994 Scott Street - Building A2 Fire Flow Servicing

My day is also wide open tomorrow so far.

Liam McNairn M.Arch | MRAIC
Intern Architect



56 Beech Street,
Ottawa, Ontario K1S 3J6
Tel: 613.724.9932 x 223 | 888.724.9932
lmcnairn@rlaarchitecture.ca

From: Kevin Reid <kreid@rlaarchitecture.ca>
Sent: September 23, 2025 1:35 PM
To: Wu, Michael <Michael.Wu@stantec.com>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>; Liam McNairn <lmcnairn@rlaarchitecture.ca>; Kevin McMahon <kevin@parkriver.ca>
Subject: RE: 1994 Scott Street - Building A2 Fire Flow Servicing

Hi Michael,

I am available to meet anytime between 11:30am and 4pm tomorrow

Kevin Reid MArch OAA MRAIC CPHC



56 Beech Street,
Ottawa, Ontario K1S 3J6
Tel: 613.724.9932 x 249
Mob: 902.266.4307
kreid@rlaarchitecture.ca

From: Wu, Michael <Michael.Wu@stantec.com>
Sent: September 23, 2025 1:29 PM
To: Kevin Reid <kreid@rlaarchitecture.ca>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>; Liam McNairn <lmcnairn@rlaarchitecture.ca>; Kevin McMahon <kevin@parkriver.ca>
Subject: RE: 1994 Scott Street - Building A2 Fire Flow Servicing

Good afternoon, Kevin:

We would like to set up a meeting to discuss this in greater detail. Could you please advise on your availability tomorrow or the remainder of the week?

Thanks,

Michael Wu, EIT
Civil Engineering Intern
He, him



From: Kevin Reid <kreid@rlaarchitecture.ca>
Sent: September 23, 2025 09:28
To: Wu, Michael <Michael.Wu@stantec.com>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>; Liam McNairn <lmcnairn@rlaarchitecture.ca>; Kevin McMahon <kevin@parkriver.ca>
Subject: RE: 1994 Scott Street - Building A2 Fire Flow Servicing

Good morning Michael,

Quick question – If the water service along Tweedsmuir is not adequate to serve the fire flow requirements for the A2 building, then I am assuming it would also not be adequate for the significantly larger in scale C building? In which case the water service along Tweedsmuir would need to be upsized.

Is that a correct assumption?

Kevin Reid MArch OAA MRAIC CPHC



56 Beech Street,
Ottawa, Ontario K1S 3J6
Tel: 613.724.9932 x 249
Mob: 902.266.4307
kreid@rlaarchitecture.ca

From: Wu, Michael
Sent: September 19, 2025 12:23 PM
To: Kevin Reid
Cc: Gladish, Alyssa ; Liam McNairn ; Kevin McMahon
Subject: 1994 Scott Street - Building A2 Fire Flow Servicing

Good afternoon, Kevin:

We have been advised by the City that the 150 mm diameter watermain in Tweedsmuir Avenue will not be able to provide the fire flow required (200 L/s) for Building A2, as at the minimum residual pressure of 20 psi, the maximum fire flow available in the watermain is 183 L/s.

To rectify the issues pertaining to the fire flow servicing for Building A2, we are proposing a couple of solutions.

1. Upsize the full length of the watermain in Tweedsmuir Avenue, from Scott Street to Richmond Road, to 200 mm diameter
2. Modify the Building A2 construction type to non-combustible to reduce the fire flow required. Note that the current 200 L/s fire flow demand also accounts for a fully supervised sprinkler system and assumes a firewall installed at Gridline D in the Building A2 site plan.

Please advise how would you like to proceed and feel free to reach out to us if you have questions or additional comments.

Thanks,

Michael Wu, EIT
Civil Engineering Intern
He, him

Direct: [\(613\) 738 6033](tel:(613)7386033)
michael.wu@stantec.com



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Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

A.4 Pre-Consultation Minutes





File No.: PC2023-0346

Kevin McMahon
Park River Properties
Via email: kevin@parkriver.ca

**Subject: Pre-Consultation: Meeting Feedback
Proposed Zoning By-law Amendment and Site Plan Control
Application – 1994 Scott Street**

Please find below information regarding next steps as well as consolidated comments from the above-noted pre-consultation meeting held on December 8, 2023.

Pre-Consultation Preliminary Assessment

1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
----------------------------	---------------------------------------	----------------------------	----------------------------	----------------------------

One (1) indicates that considerable major revisions are required while five (5) suggests that the proposal appears to meet the City's key land use policies and guidelines. This assessment is purely advisory and does not consider technical aspects of the proposal or in any way guarantee application approval.

Next Steps

1. A review of the proposal and materials submitted for the above-noted pre-consultation has been undertaken. Please proceed to complete a Phase 2 Pre-consultation Application Form and submit it together with the necessary studies and/or plans to planningcirculations@ottawa.ca.
2. In your subsequent pre-consultation submission, please ensure that all comments or issues detailed herein are addressed. A detailed cover letter stating how each issue has been addressed must be included with the submission materials. Please coordinate the numbering of your responses within the cover letter with the comment number(s) herein.
3. Please note, if your development proposal changes significantly in scope, design, or density before the Phase 3 pre-consultation, you may be required to complete or repeat the Phase 2 pre-consultation process.

Supporting Information and Material Requirements

1. The attached **Study and Plan Identification List** outlines the information and material that has been identified, during this phase of pre-consultation, as either required (R) or advised (A) as part of a future complete application submission.

- a. The required plans and studies must meet the City's Terms of Reference (ToR) and/or Guidelines, as available on Ottawa.ca. These ToR and Guidelines outline the specific requirements that must be met for each plan or study to be deemed adequate.

Consultation with Technical Agencies

1. You are encouraged to consult with technical agencies early in the development process and throughout the development of your project concept. A list of technical agencies and their contact information is enclosed.

Planning

Positive Comments:

1. Overall, Staff appreciate many of the master planning components of the proposed development:
 - a) The east-west connections
 - b) Improvements to the public realm and the local road network, including potential “complete streets” approach.
 - c) The parkland dedication and connection to broader system
 - d) The mixed-use component of the buildings
 - e) The 6-storey podium and tower (A1) frame the Mainstreet well.
 - f) Consideration of transition from A1 to A2.
 - g) Consideration of office space adjacent to the transit station.

Area for Improvement #1: Land Use

2. Provide description of community services and facilities in the immediate area to support additional population, as per 3.3 of the OP. See also Policy 4 (a) and (e) of 5.2.1. regarding the provision of full range of services.
3. Please look to potential opportunities for affordable housing and larger-household dwellings, as it could help to inform the justification for an increase in density. Please consider the following:
 - a. Affordable housing targets of Section 4.2.2 of the Official Plan;
 - b. The large-household dwelling targets of Section 3.2 (Support Intensification), listed in Table 3a and Table 3b.
4. As mentioned, the mixed-use component of each of the proposed towers is welcomed given the surrounding context, and the proximity to the Westboro O-Train Station and Policy 3 of 6.2.1. However, we would recommend that ground floor uses be distributed to respond to the context at-grade:
 - a. Please consider prioritizing at-grade commercial units along the Mainstreet Corridor.

- b. Please consider ground-oriented units along the edge of the proposed east-west connection to support the overall transition into the neighbourhood context.
5. Please consider the amenity area requirements of Policy 4 of 4.6.6. in the design of communal amenity areas.
6. Overall, given the proximity to the O-Train and the excellent cycling infrastructure found on nearby streets in the surrounding area, Staff recommend less residential parking and more bike parking (See Section 5.2.2. of the OP for direction in the Inner Urban Transect Policy Area).

Area for Improvement #2: Public Realm

7. Although Staff appreciate the thoughts already given to the potential public realm, many of the ideas proposed require some additional clarification and detail. We encourage the applicant team to work closely with Parks, Transportation and Forestry to evaluate existing/ future conditions of the subject lands and iron out the details of the planned public realm.
8. Staff have concerns with the potential loss of the urban tree canopy and would recommend that the public realm and proposed parks be placed in strategic areas to preserve mature trees and to maintain the urban tree canopy as per existing distinctive trees, which should provide cues of how to shape adjacent built form, including underground parking, to minimize impact.
9. Staff support the east-west connections (potential POPS) that connect all the proposed development sites together, and as directed through Policy 2 (b) of 6.2.1. and Policy 2 (c) of 5.2.1 but please consider elements of successful connection including:
 - a. path materials, trees, benches, lighting, etc.
 - b. Crime Prevention Through Environmental Design (CPTED) design principles
 - c. how connections mimic desire lines
 - d. how connections relate to those in the surrounding area, both existing and planned, and
 - e. whether width of connection in excess of minimum standards may assist in provision of adjacent private amenity space and support transition to the neighbourhood context.
10. The proposed improvements to the local road network are intriguing, but we would like to understand how these improvements would align with the projected public works projects, to support the planned function of the area. Transportation study should detail proposed changes and rationale.

11. Please give thought to programming of areas in between buildings A1 and A2. These buildings could benefit from the addition of communal courtyards and a shared vehicular access point/ driveway.

Area for Improvement #3: Built-Form and Height

12. Staff have concerns about the proposed heights as it relates to transition from the Scott Street Corridor toward the existing neighbourhood:
13. Staff have concerns with increased heights to the south of what either exists or is approved on the south side of Scott Street. The tallest building heights (approved/ under construction) should front the Mainstreet Corridor and should descend within the Corridor designation to provide an appropriate transition to the abutting neighbourhood designation to the south, as per Policy 2 (a) of Section 6.2.1. A 45-degree angular plane should be applied upward (toward Scott Street) from the neighbourhood side, south of the subject lands, to determine the appropriate heights and built form for buildings A2, B and C, as per 4.6.6 of the OP.
14. Regarding buildings A1 and A2, Staff have concerns with tower separation between these buildings and potentially two other tall buildings on the lands to the west. The proposed podiums and towers seem quite tight to the west side lot lines and greater separation should be explored to both support two high-rise on the subject lands and anticipate the potential for high-rise development on lands to the west, as per OP Section 4.6.6.9
15. Staff acknowledge that A1 may benefit from the policy criteria of Section 4.2 of the Richmond Road/ Westboro Secondary Plan and the designation could be extended to include A2. The determination of appropriate heights abutting Scott Street and within the Mainstreet Corridor designation for A1 and A2 requires consideration of the existing/ approved height context, urban design policies of 4.6.6 of the OP, and 2 (b) and 2 (c) of 5.2.3 of the OP that speaks to proportionate heights limits to right-of-way widths and height of podiums, and, overall, the policies which guide the development of Mainstreet Corridors within the Inner Urban Transect Policy Area.

Required Planning Applications:

16. For buildings B and C, staff appreciate the explanation/ rationale for the application of Mainstreet Corridor to those sites, based on 1)b. of 6.2.1. We have reviewed history associated with the property at 320 McRae and can confirm that the low-rise portion of that site was considered as General Urban Area in the former Official Plan (predecessor of Neighbourhood designation), which is also consistent with the Churchill and McRae Street Sectors policy for low- and mid-

rise. Please see [Report \(escribemeetings.com\)](http://escribemeetings.com). This impacts the assumptions related to the average depth of the corridor designation along Scott Street. The wording of 1) b. indicates that staff "may" consider lots on the side street, but intention is not to do so 'as-of-right'. While staff have articulated concerns with built form of buildings B and C, there is also recognition that heights in excess of the Neighbourhood designation may be appropriate. As such, our recommendation for process is to submit an Official Plan Amendment for buildings B and C, to amend the Secondary Plan, which would lead to consideration under Policy 1) c. of 6.2.1.

17. Applications for Buildings A1 and A2: Though Staff believe the applicable policies require closer attention, we agree that A1 benefits from the policy criteria of Section 4.2. of the Secondary Plan and A2 represents a logical extension of the Mainstreet Corridor designation. Therefore, a Zoning By-Law Amendment application without an Official Plan Amendment would be required for these sites, subject to confirmation of consistency with the applicable policies.
18. Staff expect a Phase 2 meeting based on the comments provided. Confirmation of the required applications requires further analysis. Further Phase 1 meeting discussions (no form or fee required) are welcome prior to a Phase 2 submission.

Feel free to contact Erin O'Connell, Planner III, for follow-up questions.

Urban Design

Comments:

19. The site is within a Design Priority Area and the proposal is subject to review by the City's Urban Design Review Panel prior to the application being deemed complete. Please contact udrp@ottawa.ca for details on submission requirements and scheduling.
20. The concept plan presented is very high level and we recommend providing additional information and analysis of the massing and context, both existing and planned, for the surrounding properties.
21. As sites B and C are going to be further reviewed, the following comments are directed at the site containing buildings A1 and A2:
 - **Transition on sites abutting a corridor:** We recommend providing true sections through the street (not perspectival) that illustrate a 45-degree line taken from the allowable height of the neighbouring residential zone drawn towards Scott to better understand what transition might look like.
 - **Podium heights:** We certainly understand the potential to see six storey podiums abutting the Scott street corridor, however, we recommend



providing additional analysis, including surrounding context, to better understand the podium heights as they relate to the neighbourhood scale.

22. An Urban Design Brief is a required submittal. The Urban Design Brief should be structured by generally following the headings highlighted under Section 3 – Contents of these Terms of Reference. Please see the Urban Design Brief Terms of Reference provided and consult the City's website for details regarding the UDRP schedule.

- It is important to study the broader existing and future contexts.
- It is important to explore and analyze alternative site planning and massing options. Alternative options explored and the analysis should be documented in the Design Brief.
- When a wind and/or shadow studies are required please refer to the Terms of Reference for the [wind analysis](#) and [shadow analysis](#) to conduct the studies and evaluate the impacts.
- ***Note. The Urban Design Brief submittal should have a section which addresses these pre-consultation comments.***

Feel free to contact Christopher Moise for follow-up questions.

Policy Planning

Comments:

23. 1994 Scott St has a Mainstreet designation and a ZBA can consider heights above 6-storeys.
24. Buildings B and C are Neighbourhood with an Evolving Overlay and require an OPA to consider heights above the established framework in OP Volume 1.
25. We will begin a review of the Richmond Rd/Scott St SP in 2026 (unless bumped earlier through an update on our workplan), which is a preferred process to consider redevelopment for those parcels not identified on Schedule C to the SP.

Engineering

ZBLA requirements

26. The Stormwater Management Criteria, for the subject site, is to be based on the following:

- a. For a combined sewer system the maximum C= 0.4 or the pre-development C value, whichever is less. In the absence of other information the allowable release rate shall be based on a 2-year storm event.

27. Boundary conditions provided on October 11th, 2023, confirmed that required fire flow is not available at the Athlone connection, please look at ways to reduce the fire demands and resubmit the BC request.

Required Engineering Plans and Studies for ZBLA and SPCA (Highlighted plans and reports are only required for future SPCA)

PLANS:

- Existing Conditions and Removals Plan
- Site Servicing Plan
- Grade Control and Drainage Plan
- Road Reinstatement Plan
- Erosion and Sediment Control Plan
- Roof Drainage Plan
- Topographical survey

REPORTS:

- Site Servicing and Stormwater Management Report
- Geotechnical Study/Investigation
- Noise Control Study
- Phase I ESA
- Phase II ESA (Depending on recommendations of Phase I ESA)
- RSC (Record of the Site Conditions)
- Site lighting certificate
- Vibration and settlement monitoring plan for 900mm watermain

Future Considerations for SPC application

28. Full Road reconstruction work is planned on Athlone Road in Spring 2025. There may be an opportunity to coordinate the construction work in the ROW depending on the anticipated construction timelines. An early servicing agreement may be required prior to registration or SPC approval and after fees are paid and servicing is approved.

29. Noise and vibration study is required for development within 75m of LRT.

30. High Pressure WM monitoring and \$25M insurance policy is required for construction work near the proximity of High -Pressure WM.

31. Rock Anchors will trigger a need for Letter of Tolerance, Lic. to Occupy and Municipal Consent. Also, LRT Office will want to see cross sections of proposed anchoring due to proximity of LRT.

32. Scott Street currently has road cut moratorium (for another 2+ years). LRT has work to do on Scott St. in this area and possibly early servicing could be done with Early Servicing Agreement (Legal) with fees paid in advance of registration and only after approval of servicing proposal (Brief and plans).

33. RSC for 1994 Scott St. as it is a commercial business and will be a more sensitive use. May also need remediation, dependent on Phase 1 ESA recommendations.
34. Geotech to speak to rock removal (hoe ramming, blasting) and shoring (rock anchors, pile driving as well as foundation (raft slab, caissons, etc.). Also need to speak to Pre-blast or Pre-Construction surveys (whichever is appropriate) as well as dewatering and protection of neighbouring properties (underpinning/shoring, etc.)
35. Infiltration and/or LID features are to be considered as the City is attempting to reduce the pressure on Storm sewer system. More green space (soft landscaping) is recommended, at minimum.

Feel free to contact Nishant Jhamb, IPM, for follow-up questions.

Noise

- A **Transportation Noise Assessment** is required as the subject development is located within **100 metres from the right-of-way of**:
- an existing or proposed arterial, collector or major collector road
- a light rail transit corridor

Feel free to contact Shawn Wessel, Mohammad Fawzi or Nishant Jhamb (IPM) for follow-up questions.

Transportation

Comments:

36. The Screening Form has indicated that TIA Triggers have been met. Please proceed with the TIA Step 2 – Scoping Report.
37. From a transportation perspective, the scale of development in close proximity to Westboro Station is appreciated. However, motor vehicle capacity of the surrounding street network is limited. Measures must be taken to discourage trips by private automobile and encourage trips by sustainable modes (transit, cycling, and walking).
38. During the Analysis, ensure that both TDM checklists are filled out and appropriate measures are taken to achieve the target modal shares. The Analysis is to assess the provisions made in the development proposal for all non-auto modes, in keeping with the policy directions established by the Official Plan and Transportation Master Plan. Elements of the proposal that support rapid and conventional transit ridership, cycling, and pedestrian movements on the study area transportation network must be identified. The OP requires that developers determine the method and means by which the development, as well as adjacent areas, can be efficiently and effectively serviced by transit.

Pedestrian and bicycle network continuity should be considered, as should Official and Transportation Master Plan policy requirements related to the provision of infrastructure to promote non-auto modes.

39. See [Schedule C16 of the Official Plan](#).

Scott Street is designated as an Arterial Road within the City's Official Plan with a ROW protection limit of 26.0 metres between Churchill Avenue N and Bayview Road. The ROW protection limit and the offset distance (13.0 metres) are typically dimensioned from the existing centerline of pavement. However, in this case the existing centreline is temporary due to the Stage 2 LRT Transitway detour on Scott Street. Therefore, the ROW protection limit and offset distance are to be dimensioned from the ultimate post-detour centreline per Stage 2 LRT drawing number EJV-S2RDSC-RWY-DWG-8053. The ROW protection limit and offset distance must be shown on the development drawings. The Certified Ontario Land Surveyor is to confirm the ROW protected limits and any portion that may fall within the private property to be conveyed to the City. Ensure that the development proposal complies with the Right-of-Way protection requirements of the Official Plan's Schedule C16.

40. ROW interpretation – Land for a road widening will be taken equally from both sides of a road, measured from the centreline in existence at the time of the widening if required by the city. The centreline is a line running down the middle of a road surface, equidistant from both edges of the pavement. In determining the centreline, paved shoulders, bus lay-bys, auxiliary lanes, turning lanes and other special circumstances are not included in the road surface. Exceptions include for example where a road has been constructed on one side of a right-of-way as part of phased road construction (i.e. 2 lanes constructed on one side of a future 4 lane road) the centerline shall be measured from the future designed road centerline as identified in an environmental assessment or other approved road design, and where a ditch cross-section on one side of the right-of-way has resulted in the constructed road surface being substantially offset, the centreline shall be measured as equidistant from the legal ROW limit.

41. Athlone Avenue Avenue is classified as a Local Road. There are no additional protected ROW limits identified in the OP.

42. Tweedsmuir Avenue is classified as a Local Road. There are no additional protected ROW limits identified in the OP.

43. A 5.0 metres x 5.0 metres sight triangle would be required at the intersection of Scott Street and Tweedsmuir Avenue based on Schedule C16 of the Official Plan. The sight triangle area is to be conveyed to the city and is to be shown on all drawings. The sight triangle dimensions are to be measured from the ROW protected limits.

44. All underground and above ground building footprints and permanent walls need to be shown on the plan to confirm that any permanent structure does not extend either above or below into the sight triangles and/or future road widening protection limits.
45. Permanent structures such as curbing, stairs, retaining walls, and underground parking foundation also bicycle parking racks are not to extend into the City's right-of-way limits.
46. Conditions will be placed on site plan approvals indicating that The purchaser, tenant or sub-lessee acknowledges the unit being rented/sold is not provided with any on-site parking and should a tenant/purchaser have a vehicle for which they wish to have parking that alternative and lawful arrangements will need to be made to accommodate their parking need at an alternative location. The Purchaser/Tenant also acknowledges that the availability and regulations governing on-street parking vary; that access to on-street parking, including through residential on-street parking permits issued by the City cannot be guaranteed now or in the future; and that a purchaser, tenant, or sub-lessee intending to rely on on-street parking for their vehicle or vehicles does so at their own risk.
47. Ensure that potential tenants who are not assigned a parking space are aware that on street parking is not a viable option for tenants.
48. The Owner acknowledges and agrees that all private accesses to Roads shall comply with the City's Private Approach By-Law being By-Law No. 2003-447 as amended <https://ottawa.ca/en/living-ottawa/laws-licences-and-permits/laws/law-z/private-approach-law-no-2003-447> or as approved through the Site Plan control process.
49. No private access shall be provided to/from Scott Street.
50. Maximize the separation distance from Scott Street for any private approach provided on Tweedsmuir Avenue for building A-1. Note Section 25 (1) (m) of the Private Approach By-Law.
51. Explore combining private accesses of building A-1 and building A-2.
52. Underground ramps should be limited to a 12% grade and must contain a subsurface melting device when exceeding 6%. Ramp grades greater than 15% can be psychological barriers to some drivers. If the ramp's break over slope exceeds 8%, a vertical-curve transition or a transition slope of half the ramp slope should be used.
53. The consultant should review the sight distance to the access and any obstructions that may hinder the view of the driver.



54. The closure of an existing private approaches shall reinstate the sidewalk, shoulder, curb, and boulevard to City standards.
 - a. Consider opportunities to enhance Scott Street's public realm with the removal of the wide existing private approach of the 1994 Scott Street property.
55. The concrete sidewalk is to meet City standards and be a minimum of 2.0 metres in width and to be continuous and depressed through the proposed accesses (please refer to the City's sidewalk and curb standard drawings).
56. Wider sidewalks and extensions of the pedestrian realm are encouraged given proximity to Westboro Station, particularly on the Scott Street frontage.
57. Provide a sidewalk on the west side of Tweedsmuir Avenue along the frontage of A-1 and A-2. Consider matching the green boulevard that currently exists on the east side of Tweedsmuir Avenue.
58. The Owner shall be required to enter into maintenance and liability agreement for all pavers, plant and landscaping material placed in the City right-of-way and the Owner shall assume all maintenance and replacement responsibilities in perpetuity.
59. We appreciate the provision of publicly accessible east-west active transportation connections between Lion's Park and Athlone Avenue, as well as between Athlone Avenue and Tweedsmuir Avenue.
 - a. If publicly owned, the connection ROW width should be a minimum of 6.0m wide.
 - b. Please align the active transportation connections to provide a straight and intuitive corridor between Ashton Avenue, Lion's Park, through Parcel 2, and through the south edge of Parcel 1.
60. Bicycle parking:
 - a. Bicycle parking spaces are required as per Section 111 of the Ottawa Comprehensive Zoning By-law.
 - b. The development is well-served by the City of Ottawa cycling network and given the context we encourage the provision of bicycle parking spaces above the minimums required by Section 111 of the Zoning By-law. A minimum of 1 bicycle parking space per residential unit is appropriate.
 - c. Bicycle parking spaces should be in safe, secure places near main entrances and preferably protected from the weather. Internal bicycle parking spaces should be provided close to ground level (i.e., on the main floor, first parking level, or first floor mezzanine level).

- d. Dedicated bicycle-specific accesses to the bicycle parking areas are encouraged.
- e. Provision of bicycle parking amenities is recommended. For example, consider bicycle repair/wash stations, as well as lockers, showers and change rooms for non-residential uses.

61. Given the proximity to Westboro Station, consideration should be given pursuing a zoning by-law amendment that permits the provision of motor vehicle parking at a rate that is below the current minimum required by Section 101 of the Ottawa Comprehensive Zoning By-law.

62. The Owner is responsible for identifying the type and location of existing signage that will be removed from within the Right-of-Way to accommodate the development site. The Owner is responsible for providing the General Manager with a detailed drawing identifying the type and position of the existing signs and roadway pavement markings along the site frontage.

63. Should the property Owner wish to use a portion of the city's road allowance for construction staging, prior to obtaining a building permit, the property Owner must obtain an approved Traffic Management Plan from the Manager, Traffic Management, Transportation Services Department. The city has the right for any reason to deny use of the Road Allowance and to amend the approved Traffic Management Plan as required.

64. Coordinate with surrounding road projects, including but not limited to the following:

- a. The integrated renewal of Athlone Avenue between Scott Street and Byron Avenue, which is planned to start construction in 2025. A new sidewalk is planned on the east side of Athlone between Scott Street and Richmond Road. Traffic calming measures (road narrowings, chicanes, speed humps, etc.) are also planned to achieve a 30 km/h operating speed. A reduction in private approaches on Athlone Avenue as part of redevelopment may provide additional opportunities of traffic calming and public realm enhancements. Contact Vanessa Black (Vanessa.black@ottawa.ca) and Daniel Brazeau (daniel.brazeau@ottawa.ca) for additional project information and coordination.
- b. The "remaining works" of the Stage 2 LRT project to remove the Scott Street Transitway detour and reconfigure Scott Street to its ultimate post-detour configuration. Preliminary timing for this Scott Street construction is 2027, but there is a possibility of it occurring earlier. Contact Mary-Ellen Gleeson (mary-ellen.gleeson@ottawa.ca) for additional information and coordination.



Feel free to contact Wally Dubyk, Transportation Project Manager, and Emmett Proulx, Specialist in Development Review and Roadway modifications for follow-up questions.

Environment and Trees

Comments:

65. Planning Forester requirements

- Please note that the Planning Forester will be reviewing the zoning application to evaluate potential impacts on Ottawa's future urban forest. Based on the information supplied, the Planning Forester will recommend that the application be either approved or not approved as proposed. For more information please contact: Mark.Richardson@Ottawa.ca
- Existing tree information
 - Any removal of privately-owned trees 10cm or larger in diameter, or city-owned trees of any diameter will require a tree permit issued under the Tree Protection Bylaw (Bylaw 2020 – 340) – tree permits are not made available until a site plan is close to approval.
 - While a Tree Conservation Report is not a mandatory requirement for a zoning application, it will be required for any future site plan applications
 - It is recommended that tree information be supplied with the zoning application
 - Please include existing tree locations, species, and general tree condition details on the landscape plan
- Future tree planting requirements
 - With the landscape plan please indicate information on tree planting including proposed species and soil volumes. The following minimum soil volume must be achieved:

Tree Type/Size	Single Tree Soil Volume (m3)	Multiple Tree Soil Volume (m3/tree)
Ornamental	15	9
Columnar	15	9
Small	20	12
Medium	25	15
Large	30	18
Conifer	25	15

- Preference should be given to planning medium to large at maturity trees

- Efforts shall be made to provide as much future canopy cover as possible at a site level, through tree planting and tree retention. The Landscape Plan shall show/document that the proposed tree planting and retention will contribute to the City's overall canopy cover over time.
- Please provide a projection of the future canopy cover for the site to 40 years.
- The services of a Registered Professional Forester are highly recommended

66. Significant environmental features: No natural heritage features or surface water features near the subject property.

67. Species at risk: Unlikely on the subject property or adjacent to it.

68. Environmental impact statements: No need for an EIS.

69. Bird-Safe Design Guidelines: For the Site Plan Control application, please review and incorporate design elements from the City's Bird Safe Design Guidelines into the proposal's design.

70. Please plant as much locally appropriate native vegetation (trees, shrubs and plants) as possible. This will contribute to the City's urban tree canopy targets, increase local biodiversity, and combat urban heat island effect. These should be illustrated in the landscape plan.

Feel free to contact Sami Rehman, Environmental Planner, and/or Mark Richardson, Planning Forester, for follow-up questions.

Parkland

Comments:

Parkland Dedication:

71. PFP request land conveyance in accordance with the Parkland Dedication By-law No 2022-280 (or as amended).

72. PFP requests the following information to estimate the conveyance requirement:

- Gross land area (GLA) of all parcels subject to development, in sq m.
- If the proposal will be phased, please also provide the GLA for each parcel.

Shape & Location of Park Block:

73. For parkland conveyance, please provide meaningful expansions to existing parks in the area, rather than fragmented, small dedications dispersed throughout the neighbourhood. For example, consider the following options:

- a. Expand Lion's Park eastward to Athlone.

- b. An expansion of the future park on McRae Avenue (to Tweedsmuir Avenue) would also be welcome. Could 337 Tweedsmuir be acquired?

74. PFP is open to discussing appropriate location(s) for the proposed parkland and invite the applicant to review our Park Development Manual for further direction.

Zoning (include if applicable):

75. Lion's Park is zoned L1 and future 320 McRae park is zoned O1. For park expansions, please use the same zone as the park proposed to be extended.

76. On all subsequent plans, please show building and underground parking setbacks/stepbacks to any existing or future park property lines.

Facility Fit Plan:

77. PFP requests a Facility Fit Plan to demonstrate what elements could fit on any parkland conveyance shown.

78. Facility Fit Plans must clearly show (in metric) the following:

- a. Those items required on a Site Plan but for the park block
- b. Key Plan showing the location of the park block within the development site
- c. Overlaid over an aerial photo if requested
- d. Critical dimensions of all park amenities including buffers and setbacks
- e. Grading across the park block and within the context of development area
- f. Any existing vegetation and special features within the park which may be preserved

General comments:

79. Park Staff would like to see stepping and transition towards Lions Park. Please also examine views from Lion's Park. Eg. variations in building heights as viewed from the park.

80. Parks staff support east/west connections requested by transportation staff to ideally connect Lion's Park to 320 McRae park via mid-block pedestrian connections.

Reference Documents:

81. Please review the following City of Ottawa reference documents which outline the requirements for parkland conveyance and/or cash-in-lieu of parkland.

- Official Plan (2021)
- Parks and Recreation Facilities Master Plan (2021)
- Park Development Manual, 2nd edition
- Parkland Dedication By-Law (2022-280) and Planning Act amendments
- City of Ottawa Standard Parks Conditions



Please note that the park comments are preliminary and will be finalized (and subject to change) upon receipt of the development application and the requested supporting documentation.

Feel free to contact Kimberley Baldwin, Parks Planner, for follow-up questions.

Conservation Authority

N/A

Community issues

Comments:

82. The concept of the Superblock is interesting. In Barcelona, Superblocks appear to be created out of existing housing, usually low rise, where they are closed to traffic and areas within the block are pedestrianized and animated with public realm activities and services. This proposal is not that: it is a grouping of towers with additional parkland and areas that are closed to traffic.
83. I really like the concept of closing the block to traffic and including parkland. Having a 40 Having a 40-storey tower on Scott is fine; the other buildings should be low-rise with a mix of towns, and row homes.
84. How this Superblock will relate to its neighbours looks like it will be very difficult to realize. Set backs will not be enough. There should be towns and low rises to lessen the impact of the towers. Or, as indicated above, build low-rise rather than towers.
85. For this kind of density, we would expect to see some truly affordable housing, larger units, some capacity for Ottawa Community Housing to put in units.
86. Having the Main Street designation for a residential street continues a bad idea that we see cropping up across the Ward and city – expanding the mainstreet zoning half-way down a residential street should not be allowed. However, this is a policy matter. Does this mean the towers on the Winona and Athlone will be allowed to have commercial – if so However, this is a policy matter.
87. I love the idea of expanding Lion's park into a linear path that leads all the way to McCrea St. Ave.
88. This will be the biggest project to date in our neighbourhood – perhaps in the whole Ward.
89. I feel the community will be very upset by this project – I could be wrong, but that is my feeling. Please stay in touch with us as you move through its development. Our colleagues at Westboro Beach CA and Island Park CA should also be engaged. I know the developer is very good at outreach and respect his



projects. Hopefully we can negotiate something that will work for the developer, City and the neighbours by working closely together.

Other

90. The High Performance Development Standard (HPDS) is a collection of voluntary and required standards that raise the performance of new building projects to achieve sustainable and resilient design. The HPDS was passed by Council on April 13, 2022.

- a. At this time, the HPDS is not in effect and Council has referred the 2023 HPDS Update Report back to staff with direction to bring forward an updated report to Committee with recommendations for revised phasing timelines, resource requirements and associated amendments to the Site Plan Control By-law by no later than Q1 2024.
- b. Please refer to the HPDS information attached and ottawa.ca/HPDS for more information.

Should there be any questions, please do not hesitate to contact myself or the contact identified for the above areas / disciplines.

Yours Truly,
Masha Wakula

c.c. Erin O'Connell
 Eric Forhan
 Andrew McCreight
 Peter Giles
 Emily Davies
 Christopher Moise
 Mohammed Fawzi
 Nishant Jhamb
 Shawn Wessel
 Matthew Hayley
 Mark Richardson
 Emmett Proulx
 Wally Dubyk
 Kimberley Baldwin

Appendix B Water Servicing

B.1 Domestic Water Demands



Domestic Water Demand Estimates - Westboro TOD

Site Plan provided by RLA Architects dated 2025-07-17

Stantec Project No. 160402015 Designed by: MW

Revision Date: 31-July-2025

Checked by: AG

Revision: 01

City File No.: PC2023-0346



Population densities per Table 4.1 City of Ottawa Water Design Guidelines:

1 Bedroom	1.4	ppu
2 Bedroom	2.1	ppu
3 Bedroom	3.1	ppu

Demand conversion factors per Table 4.2 of the City of Ottawa Water Design Guidelines and Technical Bulletin ISTB-2021-03:

Residential	280	L/cap/day
Commercial	28000	L/gross ha/day

Building ID	No. of Units	Population	Gross Parcel Area (ha)	Avg Day Demand		Max Day Demand ^{1 2}		Peak Hour Demand ^{1 2}	
				(L/min)	(L/s)	(L/min)	(L/s)	(L/min)	(L/s)
A1									
1 Bedroom	425	595		115.7	1.9	289.2	4.8	636.3	10.6
2 Bedroom	124	260		50.6	0.8	126.6	2.1	278.5	4.6
3 Bedroom	6	19		3.6	0.1	9.0	0.2	19.9	0.3
Commercial			0.21	4.1	0.1	6.1	0.1	11.1	0.2
A1 Subtotal	555	874	0.21	174.0	2.9	431.0	7.2	945.8	15.8
A2									
1 Bedroom	17	24		4.6	0.1	11.6	0.2	25.5	0.4
2 Bedroom	25	53		10.2	0.2	25.5	0.4	56.1	0.9
3 Bedroom	1	3		0.6	0.0	1.5	0.0	3.3	0.1
A2 Subtotal	43	79		15.4	0.3	38.6	0.6	84.9	1.4
B									
1 Bedroom	170	238		46.3	0.8	115.7	1.9	254.5	4.2
2 Bedroom	87	183		35.5	0.6	88.8	1.5	195.4	3.3
3 Bedroom	33	102		19.9	0.3	49.7	0.8	109.4	1.8
Commercial			0.17	3.2	0.1	4.8	0.1	8.7	0.1
B Subtotal	290	523	0.17	104.9	1.7	259.0	4.3	568.0	9.5
C									
1 Bedroom	149	209		40.6	0.7	101.4	1.7	223.1	3.7
2 Bedroom	130	273		53.1	0.9	132.7	2.2	292.0	4.9
3 Bedroom	39	121		23.5	0.4	58.8	1.0	129.3	2.2
Commercial ³			0.25	4.8	0.1	7.2	0.1	13.0	0.2
C Subtotal	318	603	0.25	122.0	2.0	300.1	5.0	657.4	11.0
Residential Subtotal	1206	2079		404.2	6.7	1010.6	16.8	2223.3	37.1
Commercial Subtotal			0.62	12.1	0.2	18.2	0.3	32.8	0.5
Total Site :	1206	2079	0.62	416.4	6.9	1028.8	17.1	2256.0	37.6

1 The City of Ottawa water demand criteria used to estimate peak demand rates for residential areas are as follows:

maximum day demand rate = 2.5 x average day demand rate

peak hour demand rate = 2.2 x maximum day demand rate (as per Technical Bulletin ISTB-2021-02)

2 Water demand criteria used to estimate peak demand rates for commercial/amenity areas are as follows:

maximum day demand rate = 1.5 x average day demand rate

peak hour demand rate = 1.8 x maximum day demand rate (as per Technical Bulletin ISTB-2021-02)

3 Includes parkland area for conservative water demand estimates.

B.2 Fire Flow Demands





FUS Fire Flow Calculation Sheet - 2020 FUS Guidelines

Stantec Project #: 160402015
Project Name: Westboro TOD
Date: 2025-08-08

Fire Flow Calculation #: 1

Notes: Floor areas and lengths based on Lot Coverage table on Site Plan (in PDF) provided by RLA Architecture (dated July 17, 2025)



FUS Fire Flow Calculation Sheet - 2020 FUS Guidelines

Stantec Project #: 160401814
Project Name: Westboro TOD
Date: 2025-08-08

Date: 2023-08-08
Fire Flow Calculation #: 2
Description: Building A2, 4-Storey Medium-Rise Building
Building Footprint Area: 660.2 m²

Notes: Floor areas and lengths based on Lot Coverage table on Site Plan (in PDF) provided by RLA Architecture (dated July 17, 2025)



FUS Fire Flow Calculation Sheet - 2020 FUS Guidelines

Stantec Project #: 160402015
Project Name: Westboro TOD
Date: 2025-08-08

Fire Flow Calculation #: 3
Description: Building B, 29-Storey High-Rise Tower
Podium Footprint Area: 768 m²

Notes: Floor areas and lengths based on Lot Coverage table on Site Plan (in PDF) provided by RLA Architecture (dated July 17, 2025)

FUS Fire Flow Calculation Sheet - 2020 FUS Guidelines



Stantec Project #: 160402015
 Project Name: Westboro TOD
 Date: 2025-08-08

Fire Flow Calculation #: 7
 Building C, 29-Storey High-Rise Tower
 Description: Podium Footprint Area: 1007.7 m²

Notes: Floor areas and lengths based on Lot Coverage table on Site Plan (in PDF) provided by RLA Architecture (dated July 17, 2025)

Step	Task	Notes								Value Used	Req'd Fire Flow (L/min)
1	Determine Type of Construction	Type II - Noncombustible Construction / Type IV-A - Mass Timber Construction								0.8	-
2	Determine Effective Floor Area	Sum of Largest Floor + 25% of Two Additional Floors				Vertical Openings Protected?				YES	-
		1008	1008	1008						1512	-
3	Determine Required Fire Flow	(F = 220 x C x A ^{1/2}). Round to nearest 1000 L/min								-	7000
4	Determine Occupancy Charge	Limited Combustible								-15%	5950
5	Determine Sprinkler Reduction	Conforms to NFPA 13								-30%	-2975
		Standard Water Supply								-10%	
		Fully Supervised								-10%	
		% Coverage of Sprinkler System								100%	
6	Determine Increase for Exposures (Max. 75%)	Direction	Exposure Distance (m)	Exposed Length (m)	Exposed Height (Stories)	Length-Height Factor (m x stories)	Construction of Adjacent Wall	Firewall / Sprinklered ?			-
		North	3.1 to 10	25.3	27	> 100	Type I-II - Protected Openings	YES			0%
		East	3.1 to 10	44.2	4	> 100	Type I-II - Protected Openings	YES			0%
		South	> 30	0	0	0-20	Type V	NO			0%
		West	20.1 to 30	44.2	4	> 100	Type V	NO			10%
7	Determine Final Required Fire Flow	Total Required Fire Flow in L/min, Rounded to Nearest 1000L/min								4000	595
		Total Required Fire Flow in L/s								66.7	
		Required Duration of Fire Flow (hrs)								1.50	
		Required Volume of Fire Flow (m ³)								360	

B.3 Boundary Conditions



Wu, Michael

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: October 2, 2025 14:38
To: Wu, Michael
Cc: Gladish, Alyssa
Subject: RE: PC2023-0346 - Westboro TOD - Updated Boundary Conditions Request
Attachments: Westboro TOD - 1994 Scott Street REVISED September 2025.pdf

Hello Michael and good afternoon.

Further to the information we provided, please note we have updated the BC response based on our interpretation of the below request. We are now providing the results for FOUR scenarios, included the two previous scenarios and now two more scenarios with the proposed watermain upsizing on Tweedsmuir to a 203 mm watermain. See the attached figure for connection locations for each scenario.

The following are boundary conditions, HGL, for hydraulic analysis at Westboro TOD (zone 1W) assumed to be connected via three (3) connections in four (4) separate scenarios. (see attached PDF for location).

Scenario 1:

Connection 1 – 152mm Watermain on Athlone Avenue:

Minimum HGL = 108.3 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (66.7 L/s) = 82.9 m

Connection 2.1 – 203mm Watermain on Scott Street:

Minimum HGL = 108.4 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (83.3 L/s) = 107.6 m

Connection 3 – 152mm Watermain on Tweedsmuir Avenue:

Minimum HGL = 108.4 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (66.7 L/s) = 104.3 m

Available fire flow at 20 psi = 180 L/s, Assuming ground elevation of 63.2 m.

Scenario 2:

Connection 1 – 152mm Watermain on Athlone Avenue:

Minimum HGL = 108.3 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (66.7 L/s) = 83.0 m

Connection 2.2 – 152mm Watermain on Tweedsmuir Avenue:

Minimum HGL = 108.3 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (83.3 L/s) = 103.5 m

Connection 3 – 152mm Watermain on Tweedsmuir Avenue:

Minimum HGL = 108.3 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (66.7 L/s) = 103.8 m

Available fire flow at 20 psi = 177 L/s, Assuming ground elevation of 63.2 m.

Scenario 3:

Connection 1 – 152mm Watermain on Athlone Avenue:

Minimum HGL = 108.3 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (66.7 L/s) = 83.0 m

Connection 2.1 – 203mm Watermain on Scott Street:

Minimum HGL = 108.4 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (83.3 L/s) = 108.0 m

Connection 3 – 203mm Watermain on Tweedsmuir Avenue:

Minimum HGL = 108.4 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (66.7 L/s) = 108.3 m

Max Day + Fire Flow (200.0 L/s) = 98.3 m

Scenario 4:

Connection 1 – 152mm Watermain on Athlone Avenue:

Minimum HGL = 108.3 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (66.7 L/s) = 83.0 m

Connection 2.2 – 203mm Watermain on Tweedsmuir Avenue:

Minimum HGL = 108.4 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (83.3 L/s) = 107.8 m

Connection 3 – 203mm Watermain on Tweedsmuir Avenue:

Minimum HGL = 108.4 m

Maximum HGL = 114.6 m

Max Day + Fire Flow (66.7 L/s) = 108.2 m

Max Day + Fire Flow (200.0 L/s) = 98.3 m

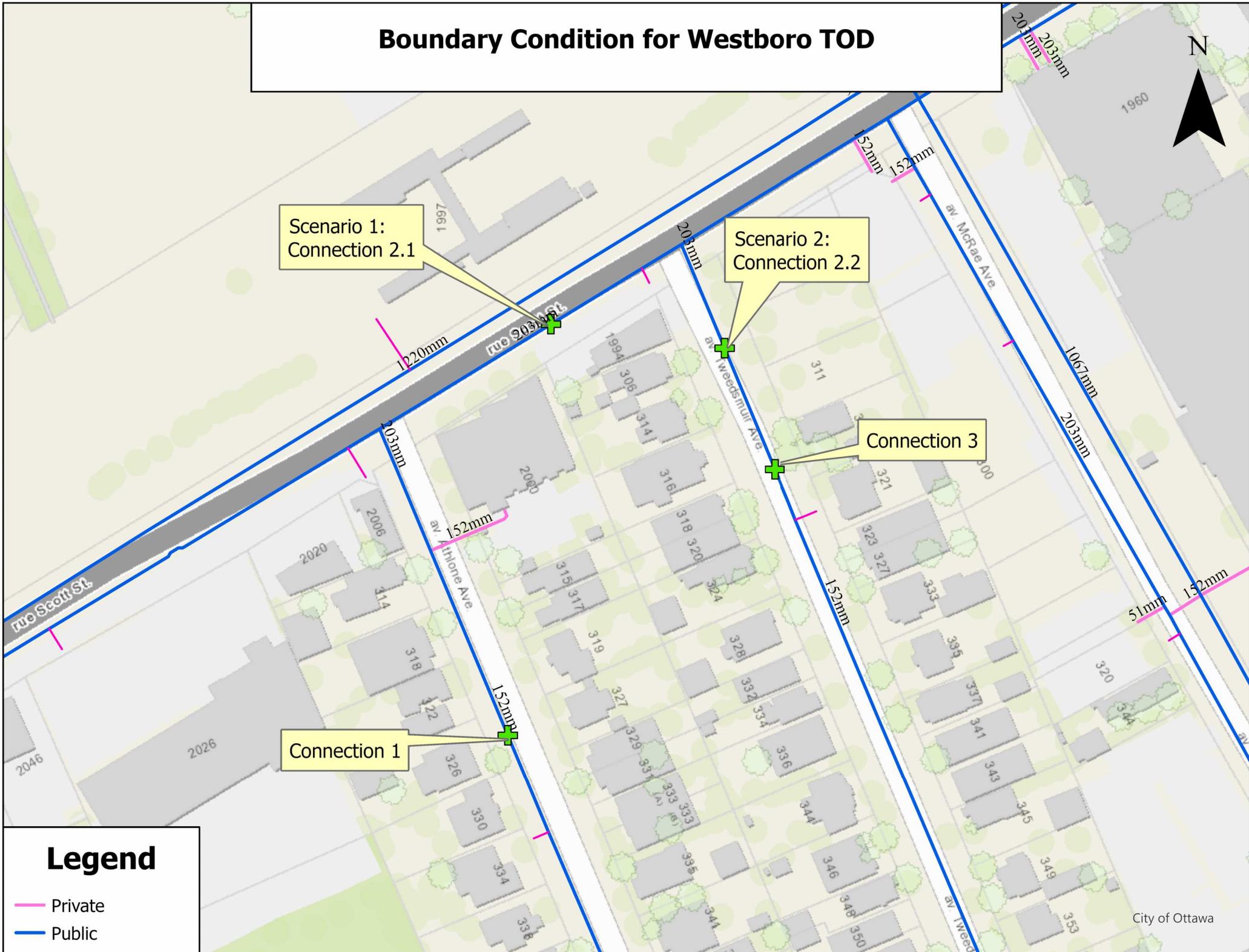
These are for current conditions and are based on computer model simulation.

Disclaimer: The boundary condition information is based on current operation of the city water distribution system. The computer model simulation is based on the best information available at the time. The operation of the water distribution system can change on a regular basis, resulting in a variation in boundary conditions. The physical properties of watermains deteriorate over time, as such must be assumed in the absence of actual field test data. The variation in physical watermain properties can therefore alter the results of the computer model simulation.

"The IWSD has recently updated their water modelling software. Any significant difference between previously received BC results and newly received BC results could be attributed to this update."

Boundary Condition for Westboro TOD

N



Appendix C Wastewater Servicing

C.1 Sanitary Sewer Connection Confirmation



Wu, Michael

From: Smadella, Karin
Sent: September 22, 2023 09:25
To: Wu, John
Cc: Wu, Michael
Subject: RE: Conceptual Development Westboro - Sanitary Sewer Capacity

Thanks for the quick response John. Thank you to Eric also.

Michael – please make note and file the correspondence.

Karin

Karin Smadella, P.Eng.

Project Manager

Direct: 613 724-4371
Mobile: 613 698-8088
Karin.Smadella@stantec.com

Stantec
300-1331 Clyde Avenue
Ottawa ON K2C 3G4



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From: Wu, John <John.Wu@ottawa.ca>
Sent: Thursday, September 21, 2023 10:31 AM
To: Smadella, Karin <Karin.Smadella@stantec.com>
Subject: FW: Conceptual Development Westboro - Sanitary Sewer Capacity

FYI

From: Tousignant, Eric <Eric.Tousignant@ottawa.ca>
Sent: September 21, 2023 10:10 AM
To: Wu, John <John.Wu@ottawa.ca>
Subject: RE: Conceptual Development Westboro - Sanitary Sewer Capacity

Hi John

I have a problem in GIS on Athlone with the east 300mm sanitary sewer. The inverts don't make sense so I would recommend that they go to the west 300mm pipe until this can be resolved. Tweedsmuir has the capacity for the proposed flow.

Eric

Eric Tousignant, P.Eng.

Senior Water Resources Engineer/ Ingénieur principal en ressources hydriques
Infrastructure and Water Services / services d'infrastructure et d'eau
City of Ottawa
613-580-2424 ext 25129

From: Wu, John <John.Wu@ottawa.ca>
Sent: September 18, 2023 9:39 AM
To: Tousignant, Eric <Eric.Tousignant@ottawa.ca>
Subject: FW: Conceptual Development Westboro - Sanitary Sewer Capacity

Hi, Eric:

I got this request from Stantec, can you check if this system can fit their request? (Tweedsmuir and Athlone street and downstream), considering this 6.4L/S on Athlone, 17.3 L/S on Tweedsmuir as additional increased sanitary flow.

Thanks.

John

From: Smadella, Karin <Karin.Smadella@stantec.com>
Sent: September 15, 2023 12:52 PM
To: Wu, John <John.Wu@ottawa.ca>
Cc: Wu, Michael <Michael.Wu@stantec.com>
Subject: Conceptual Development Westboro - Sanitary Sewer Capacity

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Hi John,

We are undertaking a feasibility analysis of a conceptual development in the Westboro Area. Given the proposed density of the development we would like to review whether or not the existing sanitary collection system has spare capacity to service the development or whether there would be a requirement to increase capacity in either of the downstream systems.

Based on the concept provided by our client, sanitary contributions are expected to be as indicated in the figure below. Are you able to reach out to the Infrastructure Management group to ask if the systems in Tweedsmuir and Athlone as well as the downstream systems in Scott Street have the capacity to receive these additional flows?



Thank you,

Karin

Karin Smadella, P.Eng.

Project Manager

Direct: 613 724-4371
 Mobile: 613 698-8088
 Karin.Smadella@stantec.com

Stantec
 300-1331 Clyde Avenue
 Ottawa ON K2C 3G4

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Appendix D Stormwater Servicing

D.1 MRM Sheet



Stormwater Management Calculations

File No: 160402015
 Project: Westboro TOD Building A1
 Date: 10-Dec-25

SWM Approach:
 Post-development to 2- Year Pre-development flows

Post-Development Site Conditions:

Overall Runoff Coefficient for Site and Sub-Catchment Areas

Runoff Coefficient Table						
Catchment Type	Sub-catchment Area	ID / Description	Area (ha) "A"	Runoff Coefficient "C"	"A x C"	Overall Runoff Coefficient
Controlled - Tributary	R3A & L3B	Hard	0.184	0.9	0.166	
		Soft	0.006	0.2	0.001	
		Subtotal		0.190		0.167
	UNC-4	Hard	0.029	0.9	0.026	
		Soft	0.005	0.2	0.001	
		Subtotal		0.034		0.027
		Total		0.225		0.194
Overall Runoff Coefficient= C:						

Total Controlled Area to Tweedsmuir Sewer
 Total Uncontrolled Area to Tweedsmuir Sewer

0.190 ha
 0.034 ha

Total Uncontrolled Areas (Non-Tributary)

0.000 ha

Total Site

0.225 ha

Stormwater Management Calculations

Project #160402015, Westboro TOD Building A1
Modified Rational Method Calculations for Storage

<p>2 yr Intensity City of Ottawa</p> <table border="1" style="margin-left: 20px;"> <tr><td>$I = a/(t + b)^c$</td></tr> <tr><td>a = 732.951</td></tr> <tr><td>b = 6.199</td></tr> <tr><td>c = 0.81</td></tr> </table>	$I = a/(t + b)^c$	a = 732.951	b = 6.199	c = 0.81	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>t (min)</th><th>I (mm/hr)</th></tr> </thead> <tbody> <tr><td>10</td><td>76.8</td></tr> <tr><td>20</td><td>52.0</td></tr> <tr><td>30</td><td>40.0</td></tr> <tr><td>40</td><td>32.9</td></tr> <tr><td>50</td><td>28.0</td></tr> <tr><td>60</td><td>24.6</td></tr> <tr><td>70</td><td>21.9</td></tr> <tr><td>80</td><td>19.8</td></tr> <tr><td>90</td><td>18.1</td></tr> <tr><td>100</td><td>16.7</td></tr> <tr><td>110</td><td>15.6</td></tr> <tr><td>120</td><td>14.6</td></tr> </tbody> </table>	t (min)	I (mm/hr)	10	76.8	20	52.0	30	40.0	40	32.9	50	28.0	60	24.6	70	21.9	80	19.8	90	18.1	100	16.7	110	15.6	120	14.6																																																								
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<p>Subdrainage Area: Predevelopment Tributary Area to Outlet</p> <p>Area (ha): 0.2245 C: 0.50</p> <p>Typical Time of Concentration</p> <table border="1" style="margin-left: 20px;"> <tr><th>tc (min)</th><th>I (2 yr) (mm/hr)</th><th>Qtarget (L/s)</th></tr> <tr><td>10</td><td>76.8</td><td>24.0</td></tr> </table>		tc (min)	I (2 yr) (mm/hr)	Qtarget (L/s)	10	76.8	24.0																																																																																
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Stormwater Management Calculations

File No: 160402015
 Project: Westboro TOD Building A2
 Date: 10-Dec-25

SWM Approach:
 Post-development to 2- Year Pre-development flows

Post-Development Site Conditions:

Overall Runoff Coefficient for Site and Sub-Catchment Areas

Runoff Coefficient Table						
Catchment Type	Sub-catchment Area	ID / Description	Area (ha) "A"	Runoff Coefficient "C"	"A x C"	Overall Runoff Coefficient
Uncontrolled - Non-Tributary	UNC-2	Hard Soft	0.009 0.002	0.9 0.2	0.008 0.000	0.009 0.80
		Subtotal		0.011		
Controlled - Tributary	R2A & L2B	Hard Soft	0.108 0.005	0.9 0.2	0.097 0.001	0.098 0.87
		Subtotal		0.112		
Uncontrolled - Tributary	UNC-3	Hard Soft	0.009 0.001	0.9 0.2	0.008 0.000	0.008 0.80
		Subtotal		0.010		
Total				0.133		0.114
Overall Runoff Coefficient= C:						0.86

Total Controlled Area to Tweedsmuir Sewer
 Total Uncontrolled Area to Tweedsmuir Sewer

0.112 ha
 0.010 ha

Total Uncontrolled Areas (Non-Tributary) - to Athlone Sewer

0.011 ha

Total Site

0.133 ha

Stormwater Management Calculations

Project #160402015, Westboro TOD Building A2
Modified Rational Method Calculations for Storage

2 yr Intensity City of Ottawa	$I = a/(t + b)^c$	a =	732.951	t (min)	I (mm/hr)
		b =	6.199		
		c =	0.81		
				10	76.8
				20	52.0
				30	40.0
				40	32.9
				50	28.0
				60	24.6
				70	21.9
				80	19.8
				90	18.1
				100	16.7
				110	15.6
				120	14.6

2 YEAR Predevelopment Target Release from Portion of Site

Subdrainage Area: Predevelopment Tributary Area to Outlet
 Area (ha): 0.133
 C: 0.50

Typical Time of Concentration

tc (min)	I (2 yr) (mm/hr)	Qtarget (L/s)
10	76.8	14.2

2 YEAR Modified Rational Method for Entire Site

Subdrainage Area: UNC-2
 Area (ha): 0.01
 C: 0.80

tc (min)	I (5 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
5	103.57	2.45	2.45
10	76.81	1.82	1.82
15	61.77	1.46	1.46
20	52.03	1.23	1.23
25	45.17	1.07	1.07
30	40.04	0.95	0.95
35	36.06	0.85	0.85
40	32.86	0.78	0.78
45	30.24	0.72	0.72
50	28.04	0.66	0.66
55	26.17	0.62	0.62
60	24.56	0.58	0.58

Subdrainage Area: STORAGE
 Area (ha): 0.11
 C: 0.87

Storage

tc (min)	I (2 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m³)
10	76.8	20.9	6.7	14.2	8.5
20	52.0	14.1	6.7	7.5	9.0
30	40.0	10.9	6.7	4.2	7.6
40	32.9	8.9	6.7	2.3	5.4
50	28.0	7.6	6.7	0.9	2.8
60	24.6	6.7	6.7	0.0	0.0
70	21.9	6.0	6.7	0.0	0.0
80	19.8	5.4	6.7	0.0	0.0
90	18.1	4.9	6.7	0.0	0.0
100	16.7	4.6	6.7	0.0	0.0
110	15.6	4.2	6.7	0.0	0.0
120	14.6	4.0	6.7	0.0	0.0

Stage	Head (m)	Discharge (L/s)	Vreq (cu. m)
2-year Water Level	-	6.7	9.0

Subdrainage Area: R2A & L2B
 Area (ha): 0.11
 C: 0.87

Controlled - Tributary

tc (min)	I (2 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	76.8	20.9	20.9
20	52.0	14.1	14.1
30	40.0	10.9	10.9
40	32.9	8.9	8.9
50	28.0	7.6	7.6
60	24.6	6.7	6.7
70	21.9	6.0	6.0
80	19.8	5.4	5.4
90	18.1	4.9	4.9
100	16.7	4.6	4.6
110	15.6	4.2	4.2
120	14.6	4.0	4.0

Project #160402015, Westboro TOD Building A2
Modified Rational Method Calculations for Storage

100 yr Intensity City of Ottawa	$I = a/(t + b)^c$	a =	1735.688	t (min)	I (mm/hr)
		b =	6.014		
		c =	0.820		
				10	178.6
				20	120.0
				30	91.9
				40	75.1
				50	64.0
				60	55.9
				70	49.8
				80	45.0
				90	41.1
				100	37.9
				110	35.2
				120	32.9

100 YEAR Modified Rational Method for Entire Site

Subdrainage Area: UNC-2
 Area (ha): 0.01
 C: 1.00

Uncontrolled - Non-Tributary

tc (min)	I (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	178.56	5.28	5.28
20	119.95	3.55	3.55
30	91.87	2.72	2.72
40	75.15	2.22	2.22
50	63.95	1.89	1.89
60	55.89	1.65	1.65
70	49.79	1.47	1.47
80	44.99	1.33	1.33
90	41.11	1.22	1.22
100	37.90	1.12	1.12
110	35.20	1.04	1.04
120	32.89	0.97	0.97

Subdrainage Area: STORAGE
 Area (ha): 0.11
 C: 1.00

Storage

tc (min)	I (2 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m³)
10	178.6	55.7	6.7	49.0	29.4
20	120.0	37.4	6.7	30.7	36.9
30	91.9	28.6	6.7	22.0	39.5
40	75.1	23.4	6.7	16.8	40.2
50	64.0	19.9	6.7	13.3	39.8
60	55.9	17.4	6.7	10.8	38.7
70	49.8	15.5	6.7	8.8	37.2
80	45.0	14.0	6.7	7.4	35.3
90	41.1	12.8	6.7	6.1	33.2
100	37.9	11.8	6.7	5.1	30.9
110	35.2	11.0	6.7	4.3	28.4
120	32.9	10.3	6.7	3.6	25.8

Stage	Head (m)	Discharge (L/s)	Vreq (cu. m)
100-year Water Level	-	6.7	40.2

Subdrainage Area: R2A & L2B
 Area (ha): 0.11
 C: 1.00

Controlled - Tributary

tc (min)	I (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	178.6	55.7	55.7
20	120.0	37.4	37.4
30	91.9	28.6	28.6
40	75.1	23.4	23.4
50	64.0	19.9	19.9
60	55.9	17.4	17.4
70	49.8	15.5	15.5
80	45.0	14.0	14.0
90	41.1	12.8	12.8
100	37.9	11.8	11.8
110	35.2	11.0	11.0
120	32.9	10.3	10.3

Stormwater Management Calculations

Project #160402015, Westboro TOD Building A2
Modified Rational Method Calculations for Storage

Subdrainage Area: UNC-3				Uncontrolled - Tributary			
Subdrainage Area:	UNC-3	Area (ha):	0.01	Subdrainage Area:	UNC-3	Area (ha):	0.01
C:	0.80	C:	1.00	tc (min)	I (2 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	76.8	1.7	1.7	10	178.6	5.1	5.1
20	52.0	1.2	1.2	20	120.0	3.4	3.4
30	40.0	0.9	0.9	30	91.9	2.6	2.6
40	32.9	0.7	0.7	40	75.1	2.1	2.1
50	28.0	0.6	0.6	50	64.0	1.8	1.8
60	24.6	0.6	0.6	60	55.9	1.6	1.6
70	21.9	0.5	0.5	70	49.8	1.4	1.4
80	19.8	0.5	0.5	80	45.0	1.3	1.3
90	18.1	0.4	0.4	90	41.1	1.2	1.2
100	16.7	0.4	0.4	100	37.9	1.1	1.1
110	15.6	0.4	0.4	110	35.2	1.0	1.0
120	14.6	0.3	0.3	120	32.9	0.9	0.9

SUMMARY TO OUTLET			
Total Tributary Area	0.112 ha	Vrequired	Vavailable*
Peak 2yr Controlled Release Rate	6.7 L/s	9.0	41.0 m ³ Ok
2yr Uncontrolled Flow to Tweedsmuir	1.7 L/s		
2yr Uncontrolled Flow to Athlone	2.4 L/s		
Peak 2yr Uncontrolled Flow	4.2 L/s		
Total 2yr Flow To Sewer Target	10.9 L/s		
	14.2 L/s		

Project #160402015, Westboro TOD Building A2
Modified Rational Method Calculations for Storage

Subdrainage Area: UNC-3				Uncontrolled - Tributary			
Subdrainage Area:	UNC-3	Area (ha):	0.01	Subdrainage Area:	UNC-3	Area (ha):	0.01
C:	1.00	C:	1.00	tc (min)	I (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	178.6	5.1	5.1	10	178.6	5.1	5.1
20	120.0	3.4	3.4	20	120.0	3.4	3.4
30	91.9	2.6	2.6	30	91.9	2.6	2.6
40	75.1	2.1	2.1	40	75.1	2.1	2.1
50	64.0	1.8	1.8	50	64.0	1.8	1.8
60	55.9	1.6	1.6	60	55.9	1.6	1.6
70	49.8	1.4	1.4	70	49.8	1.4	1.4
80	45.0	1.3	1.3	80	45.0	1.3	1.3
90	41.1	1.2	1.2	90	41.1	1.2	1.2
100	37.9	1.1	1.1	100	37.9	1.1	1.1
110	35.2	1.0	1.0	110	35.2	1.0	1.0
120	32.9	0.9	0.9	120	32.9	0.9	0.9

SUMMARY TO OUTLET			
Total Tributary Area	0.112 ha	Vrequired	Vavailable*
Peak 100yr Controlled Release Rate	6.7 L/s	40.2	41.0 m ³ Ok
100yr Uncontrolled Flow to Tweedsmuir	5.1 L/s		
100yr Uncontrolled Flow to Athlone	2.4 L/s		
Peak 100yr Uncontrolled Flow	7.5 L/s		
Total 100yr Flow To Sewer Target	14.2 L/s		
	14.2 L/s		

Stormwater Management Calculations

File No: 160402015

Project: Westboro TOD Building B

Date: 10-Dec-25

SWM Approach:
Post-development to 2- Year Pre-development flows

Post-Development Site Conditions:

Overall Runoff Coefficient for Site and Sub-Catchment Areas

Runoff Coefficient Table						
Catchment Type	Sub-catchment Area	ID / Description	Area (ha) "A"	Runoff Coefficient "C"	"A x C"	Overall Runoff Coefficient
Controlled - Tributary	R1A & L1B	Hard Soft	0.137 0.005	0.9 0.2	0.124 0.001	0.125 0.88
		Subtotal		0.142		
Uncontrolled - Tributary	UNC-1	Hard Soft	0.019 0.003	0.9 0.2	0.018 0.001	0.018 0.80
		Subtotal		0.023		
Total				0.165	0.143	0.86
Overall Runoff Coefficient= C:						

Total Controlled Area to Athlone Sewer
Total Uncontrolled Area to Athlone Sewer

0.142 ha

0.023 ha

Total Site

0.165 ha

Stormwater Management Calculations

Project #160402015, Westboro TOD Building B
Modified Rational Method Calculations for Storage

2 yr Intensity	$I = a/(t + b)^c$	a =	732.951	t (min)	I (mm/hr)
City of Ottawa		b =	6.199	10	76.8
		c =	0.81	20	52.0
				30	40.0
				40	32.9
				50	28.0
				60	24.6
				70	21.9
				80	19.8
				90	18.1
				100	16.7
				110	15.6
				120	14.6

2 YEAR Predevelopment Target Release from Portion of Site

Subdrainage Area: Predevelopment Tributary Area to Outlet
Area (ha): 0.165
C: 0.50

Typical Time of Concentration

tc (min)	I (2 yr) (mm/hr)	Qtarget (L/s)
10	76.8	17.6

2 YEAR Modified Rational Method for Entire Site

Subdrainage Area: STORAGE
Area (ha): 0.14
C: 0.88

tc (min)	I (2 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m³)
10	76.8	26.6	6.3	20.3	12.2
20	52.0	18.0	6.3	11.7	14.0
30	40.0	13.9	6.3	7.5	13.5
40	32.9	11.4	6.3	5.0	12.1
50	28.0	9.7	6.3	3.4	10.1
60	24.6	8.5	6.3	2.2	7.8
70	21.9	7.6	6.3	1.2	5.2
80	19.8	6.9	6.3	0.5	2.5
90	18.1	6.3	6.3	0.0	0.0
100	16.7	5.8	6.3	0.0	0.0
110	15.6	5.4	6.3	0.0	0.0
120	14.6	5.0	6.3	0.0	0.0

Stage	Head (m)	Discharge (L/s)	Vreq (cu. m)
2-year Water Level	-	6.3	14.0

Subdrainage Area: R1A & L1B
Area (ha): 0.14
C: 0.88

tc (min)	I (2 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	76.8	26.6	26.6
20	52.0	18.0	18.0
30	40.0	13.9	13.9
40	32.9	11.4	11.4
50	28.0	9.7	9.7
60	24.6	8.5	8.5
70	21.9	7.6	7.6
80	19.8	6.9	6.9
90	18.1	6.3	6.3
100	16.7	5.8	5.8
110	15.6	5.4	5.4
120	14.6	5.0	5.0

Subdrainage Area: UNC-1
Area (ha): 0.02
C: 0.80

tc (min)	I (2 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	76.8	3.9	3.9
20	52.0	2.6	2.6
30	40.0	2.0	2.0
40	32.9	1.7	1.7
50	28.0	1.4	1.4
60	24.6	1.2	1.2
70	21.9	1.1	1.1
80	19.8	1.0	1.0
90	18.1	0.9	0.9
100	16.7	0.8	0.8
110	15.6	0.8	0.8
120	14.6	0.7	0.7

SUMMARY TO OUTLET

Total Tributary Area	0.165 ha	Vrequired	Vavailable*
Peak 2yr Controlled Release Rate	6.3 L/s	14.0	57.0 m³
2yr Uncontrolled Flow to Athlone	3.9 L/s		
Peak 2yr Uncontrolled Flow	3.9 L/s		
Total 2yr Flow To Sewer Target	10.2 L/s		
	17.6 L/s		

Project #160402015, Westboro TOD Building B
Modified Rational Method Calculations for Storage

100 yr Intensity	$I = a/(t + b)^c$	a =	1735.688	t (min)	I (mm/hr)
City of Ottawa		b =	6.014	10	178.6
		c =	0.820	20	120.0
				30	91.9
				40	75.1
				50	64.0
				60	55.9
				70	49.8
				80	45.0
				90	41.1
				100	37.9
				110	35.2
				120	32.9

100 YEAR Modified Rational Method for Entire Site

Subdrainage Area: STORAGE
Area (ha): 0.14
C: 1.00

tc (min)	I (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m³)
10	178.6	70.6	6.3	64.3	38.6
20	120.0	47.5	6.3	41.1	49.3
30	91.9	36.3	6.3	30.0	54.0
40	75.1	29.7	6.3	23.4	56.1
50	64.0	25.3	6.3	19.0	56.9
60	55.9	22.1	6.3	15.8	56.8
70	49.8	19.7	6.3	13.4	56.1
80	45.0	17.8	6.3	11.5	55.0
90	41.1	16.3	6.3	9.9	53.6
100	37.9	15.0	6.3	8.6	51.9
110	35.2	13.9	6.3	7.6	50.0
120	32.9	13.0	6.3	6.7	48.0

Stage	Head (m)	Discharge (L/s)	Vreq (cu. m)
100-year Water Level	-	6.3	56.9

Subdrainage Area: R1A & L1B
Area (ha): 0.14
C: 1.00

tc (min)	I (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	178.6	70.6	70.6
20	120.0	47.5	47.5
30	91.9	36.3	36.3
40	75.1	29.7	29.7
50	64.0	25.3	25.3
60	55.9	22.1	22.1
70	49.8	19.7	19.7
80	45.0	17.8	17.8
90	41.1	16.3	16.3
100	37.9	15.0	15.0
110	35.2	13.9	13.9
120	32.9	13.0	13.0

Subdrainage Area: UNC-1
Area (ha): 0.02
C: 1.00

tc (min)	I (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	178.6	11.3	11.3
20	120.0	7.6	7.6
30	91.9	5.8	5.8
40	75.1	4.7	4.7
50	64.0	4.0	4.0
60	55.9	3.5	3.5
70	49.8	3.1	3.1
80	45.0	2.8	2.8
90	41.1	2.6	2.6
100	37.9	2.4	2.4
110	35.2	2.2	2.2
120	32.9	2.1	2.1

SUMMARY TO OUTLET

Total Tributary Area	0.165 ha	Vrequired	Vavailable*
Peak 100yr Controlled Release Rate	6.3 L/s	56.9	57.0 m³
100yr Uncontrolled Flow to Athlone	11.3 L/s		
Peak 100yr Uncontrolled Flow	11.3 L/s		
Total 100yr Flow To Sewer Target	17.6 L/s		
	17.6 L/s		

Stormwater Management Calculations

File No: 160402015

Project: Westboro TOD Building C

Date: 10-Dec-25

SWM Approach:
Post-development to 2- Year Pre-development flows

Post-Development Site Conditions:

Overall Runoff Coefficient for Site and Sub-Catchment Areas

Runoff Coefficient Table						
Catchment Type	Sub-catchment Area	ID / Description	Area (ha) "A"	Runoff Coefficient "C"	"A x C"	Overall Runoff Coefficient
Controlled - Tributary	R4A & L4B	Hard	0.146	0.9	0.131	
		Soft	0.003	0.2	0.001	
		Subtotal		0.149		0.132
	UNC-5	Hard	0.018	0.9	0.016	
		Soft	0.003	0.2	0.001	
		Subtotal		0.021		0.017
		Total		0.170		0.149
Overall Runoff Coefficient= C:						

Total Controlled Area to Tweedsmuir Sewer
Total Uncontrolled Area to Tweedsmuir Sewer

0.149 ha
0.021 ha

Total Uncontrolled Areas (Non-Tributary)

0.000 ha

Total Site

0.170 ha

Stormwater Management Calculations

Project #160402015, Westboro TOD Building C
Modified Rational Method Calculations for Storage

2 yr Intensity City of Ottawa	$I = a/(t + b)^c$	a =	732.951	t (min)	I (mm/hr)																																																																														
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<table border="1" style="width: 100%;"> <thead> <tr> <th>tc (min)</th> <th>I (2 yr) (mm/hr)</th> <th>Qtarget (L/s)</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>76.8</td> <td>18.2</td> </tr> </tbody> </table>						tc (min)	I (2 yr) (mm/hr)	Qtarget (L/s)	10	76.8	18.2																																																																								
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Project #160402015, Westboro TOD Building C
Modified Rational Method Calculations for Storage

100 yr Intensity City of Ottawa	$I = a/(t + b)^c$	a =	1735.688	t (min)	I (mm/hr)																																																																														
		b =	6.014																																																																																
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D.2 SWM Quality Control Structure Location Confirmation



Wu, Michael

From: Kevin Reid <kreid@rlaarchitecture.ca>
Sent: December 9, 2025 13:09
To: Gladish, Alyssa; Robert Verch
Cc: Liam McNairn; Pierre Boulet; Wagar, Barrett; Johnson, Warren; Wu, Michael
Subject: RE: 1994 Scott Street - Accommodating Service Structures

Hi Alyssa,

Please proceed with the OGS systems within each of the P1 levels as previously directed.

Kevin Reid OAA M.Arch CPHC
Director, Design & Business Development



56 Beech Street,
Ottawa, Ontario K1S 3J6
Tel: 613.724.9932 x 249 | 902.266.4307
kreid@rlaarchitecture.ca

From: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Sent: December 9, 2025 12:38 PM
To: Kevin Reid <kreid@rlaarchitecture.ca>; Robert Verch <rverch@rlaarchitecture.ca>
Cc: Liam McNairn <lmcnairn@rlaarchitecture.ca>; Pierre Boulet <pierreb@bouletconstruction.com>; Wagar, Barrett <barrett.wagar@stantec.com>; Johnson, Warren <Warren.Johnson@stantec.com>; Wu, Michael <Michael.Wu@stantec.com>
Subject: 1994 Scott Street - Accommodating Service Structures

Hello Kevin,

We requested that the foundation be adjusted for buildings A1, B1, and C1 to accommodate the stormwater quality control structure, an oil-grit-separator (OGS) unit (or other required quality control structure) during the Teams meeting November 14. As there is insufficient room between the front property line and the foundation wall to accommodate this structure in the current plan, where there is presently only 0.5m clearance between the foundation wall and the property line.

For the ZBLA submission, the RLA team has confirmed that the OGS unit will be situated in the underground P1 level. At detailed design, it will be confirmed that the underground parking will have the clearance, turning radii, and structure to support pumper trucks for OGS cleanout. The OGS structure cover will need to be accessible within the underground parking, and not situated within a parking stall, in case emergency maintenance is required. We can proceed with this assumption for the first ZBLA submission. However, there are risks if we proceed with this arrangement in future submissions, as detailed below:

- 1) A specialized (fiberglass) OGS structure is required for indoor use. This will have additional costs for the civil structure and the building structural design.

2) According to the sewer use bylaw, the city *may* still require a storm monitoring manhole to be located:

- a. Outside of the building and accessible to the City.
- b. Entirely within the private property
- c. 1m setback from the property line
- d. 1m offset from the foundation wall

If this is required, then the foundation wall will need to be setback anyway, to accommodate the monitoring structure.

3) According to the sewer use bylaw, the city requires a sanitary monitoring manhole to be provided for multi-storey buildings. Similar to the storm monitoring, the sanitary must be located:

- a. Outside of the building and accessible to the City.
- b. Entirely within the private property
- c. 1m setback from the property line
- d. 1m offset from the foundation wall

On an exception basis, the City may allow for the use of a sanitary inspection chamber instead of a full-sized sanitary manhole for this purpose. A sanitary inspection chamber would require a minimum 1.0m clearance between the property line and the foundation wall, though ideally at least 1.5m clearance. So even with this exception, the foundation wall will still need to be pushed back at least 1.0m from property line to accommodate the service structures.

4) If these decisions are deferred to detailed design, there can be significant impacts on parking stall counts, etc. That can become highly problematic. It is in the best interest of the serviceability of this site to accommodate the service structures prior to the final ZBLA submission/approval.

I believe we should proceed with this submission with the current plans and indicate that the OGS unit will be located within the P1 level. However, these issues and risks should be addressed for the next iteration/submission.

Please acknowledge the situation and risks outlined herein.

Sincerely,
Alyssa

Alyssa Gladish, E.I.T.
Project Manager

Direct: (780) 917-8567
Mobile: (587) 721-1241
alyssa.gladish@stantec.com



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