Stantec Consulting Ltd.
300-1331 Clyde Avenue, Ottawa ON K2C 3G4

July 7, 2026
File: 160402328

Attention: Andrew McCreight
City of Ottawa
Development Review – Central Branch
110 Laurier Avenue West
Ottawa, ON K1P 1J1

Good day Mr. McCreight,

Reference: Functional Site Servicing Review – 35 Laurel Street (Previously 75 Breezehill Avenue North): Building Height Increase Memorandum

Stantec Consulting Ltd. (Stantec) is commissioned by 2729685 Ontario Inc. to prepare this Functional Site Servicing Review Memorandum for the proposed infill re-development at 35 Laurel Street in the City of Ottawa. The site includes a proposed mixed-use development with ground-level commercial occupancy, shared underground parking, and two residential high-rise towers.

Stantec previously provided Civil Engineering Services for this project in support of the Official Plan Amendment (OPA) and Zoning By-law Amendment (ZBLA). The *Functional Site Servicing and Stormwater Management Report – 35 Laurel Street (Previously 75 Breezehill Avenue) Revision 1*, and drawings GP-1 and SSP-1 (Rev.3, 24.12.04) were prepared and submitted to the City for review by Stantec in December 2024. In Revision 1 of the report, Buildings A and B were to include a total of 27 and 29 above-ground storeys, respectively. In the revised Site Plan provided by RLA Architecture, dated February 16, 2026 (see **Appendix A**), four (4) additional floors are added to the height of each building, including a further sixty-four (64) residential units. The revised building attributes and statistics are listed in **Table 1**.

Table 0: Revised Attributes of Proposed Buildings

	Revision 1 (Dec 2024)			Revision 2 (July 2026)		
Use/Attribute	**Total**	**Building A**	**Building B**	**Total**	**Building A**	**Building B**
Number of Above Ground Storeys						
Podium	-	6	6	-	6	6
High-Rise Tower	-	21	23	-	25	27
Total	**-**	**27**	**29**	**-**	**31**	**33**
Underground Parking Levels	2	-	-	2	-	-
Commercial (m^2)	429	0	429	425	0	425
Residential Apartment Rental Units	479	232	247	543	264	279
Residential Apartment Unit Types						
Studio	**48**	25	23	**56**	29	27
One-bedroom	**131**	51	80	**151**	59	92
One-bedroom with Study	**77**	29	48	**85**	33	52
Two-bedroom	**193**	117	76	**221**	133	88
Three-bedroom	**30**	10	20	**30**	10	20

Reference: **Functional Site Servicing Review – 35 Laurel Street (Previously 75 Breezehill Avenue North): Building Height Increase Memorandum**

The purpose of this memorandum is to demonstrate that the functional servicing scheme proposed in Revision 1 and adjacent municipal infrastructure is adequate to support the building height increase and additional units. The domestic water demand, hydraulic analysis, wastewater peak flows, and sanitary sewer design have been revised to reflect the increased number of units and projected population. The findings are summarized in the following sections.

PROJECTED POPULATION

Based on the densities outlined in Table 4.1 of the *City of Ottawa Water Distribution Design Guidelines (WDG002) 2nd Edition*, December 8, 2025, the projected population for the development increased from 911 persons to 1,025 persons.

POTABLE WATER DEMANDS

Water demand for the development was estimated using the same demand rates and peaking factors as Revision 1, the residential demand rate of 280 L/cap/day and the commercial demand rate of 28,000 L/ha/day for the proposed commercial floor areas. The increase in residential population resulted in additional average day demand (AVDY) of 0.3 L/s, maximum day demand (MXDY) of 0.9 L/s, and peak hour demand (PKHR) of 2.0 L/s. See **Appendix B.1** for detailed calculations as summarized in **Table 2**.

Table 2: Estimated Water Demands

	Revision 1 (Dec 2024)				Revision 2 (July 2026)			
Demand Type	**Area (ha)**	**AVDY (L/s)**	**MXDY (L/s)**	**PKHR (L/s)**	**Area (ha)**	**AVDY (L/s)**	**MXDY (L/s)**	**PKHR (L/s)**
Commercial	0.04	0.01	0.02	0.04	0.04	0.01	0.02	0.04
Residential	-	3.0	7.4	16.2	-	3.32	8.31	18.28
Total Site	**0.04**	**3.0**	**7.4**	**16.3**	**0.04**	**3.3**	**8.3**	**18.3**
Increase	**-**	**-**	**-**	**-**	**-**	**0.3**	**0.9**	**2.0**

FIRE FLOW DEMANDS

The revised Site Plan (Feb 2026) did not significantly change the gross floor areas of the podium, nor the tower compared to Revision 1 (Dec 2024). Based on the non-combustible construction type, full sprinkler coverage, and no detectable change to the exposures to the adjacent buildings, it was verified that the worst-case required fire flow for the site remains unchanged at 4,000 L/min (67 L/s). See **Appendix B.2** for the FUS calculations.

HYDRAULIC ASSESSMENT

The available water flow and pressures from the existing watermain in Laurel Street were previously obtained from the City of Ottawa, as Boundary Conditions included in **Appendix B.3** and summarized in **Table 3**. The available boundary conditions included the previous 30- and 35-storey scenario (Revision 0). The City confirmed there were no significant changes to the boundary conditions for the 27- and 29-storey scenario (Revision 1). Since the new scenario (Revision 2) with building heights of 31- and 33-storeys falls between

the two previous scenarios, we have assumed the Boundary Conditions for Revision 0 can still be applied. It is assumed that the ground floor elevation remains unchanged from Revision 1 at 64.44m, Consequently, the hydraulic analysis of residual pressures at ground level also remains unchanged. The anticipated pressures are within the acceptable range under both normal and emergency fire flow demand scenarios. The proposed functional Water Servicing, as presented in Revision 1 (Dec, 2024) is found to be adequate to support the additional stories and projected population of the development.

Table 3: Functional Hydraulic Analysis and Boundary Conditions

Condition	Laurel Street 14-Nov-2023 (HGL, m)	Revision 0 30- and 35-Storeys Demand (L/s)	Revision 2 31- and 33-Storeys Demand (L/s)	Residual Ground Floor Pressure (kPa)	Residual Ground Floor Pressure (psi)
PKHR Min. HGL	**107.4**	**18.4**	**18.3**	**421.2**	**61.1**
AVDY Max. HGL	**115.1**	**3.4**	**3.3**	**496.7**	**72.0**
Max. Day + FF (67 L/s)	**104.3**	**75.1**	**75.0**	**390.8**	**56.7**

WASTEWATER

Peak wastewater flows for the proposed development were estimated using the same generation rates as Revision 1, the residential demand rate of 280 L/cap/day, the commercial demand rate of 28,000 L/ha/day for the proposed commercial floor areas, and the infiltration inflow rate of 0.33L/s/ha as per the *City of Ottawa Sewer Design Guidelines (SDG 004) 4th Edition* (December 2025). The sanitary sewer design sheet was revised to accommodate the additional 64 residential apartment units, as shown in the **Appendix C.1.** The estimated peak wastewater flow is summarized in **Table 4**. The total estimated wastewater peak flow for Revision 2 is **11.0 L/s**, which is an increase of 1.2 L/s compared to Revision 1.

Table 4: Estimated Peak Wastewater Flow

	Peak Residential Wastewater Flow			Commercial Wastewater Flow (L/s)	Infiltration Flow (L/s)	Total Peak Flow (L/s)
	Population	Peak Factor	Peak Flow (L/s)			
Revision 2 (July 2027)	1025	3.234	10.7	0.02	0.2	11.0
Revision 1 (Dec 2024)	911	3.261	9.6	0.02	0.2	9.8
Difference	**114**	**-0.027**	**1.1**	**0**	**0**	**1.2**

PROPOSED SANITARY SERVICING

The servicing strategy remains the same as presented in the Revision 1 (Dec 2024) functional servicing report, which proposes to discharge wastewater from both buildings into the 1050mm diameter sanitary trunk sewer in Laurel Street via the proposed 200mm diameter sanitary service lateral. The sanitary sewer design sheet demonstrates that the sanitary lateral is adequately sized. The City of Ottawa staff have previously confirmed that the receiving 1050mm diameter sanitary sewer on Laurel Street has a downstream capacity which is sufficient to receive the wastewater flow generated from this site.

Reference: **Functional Site Servicing Review – 35 Laurel Street (Previously 75 Breezehill Avenue North): Building Height Increase Memorandum**

STORMWATER

The Revision 2 proposed building height increase does not affect the stormwater management requirements, nor does it affect the proposed building storm servicing for this site compared to Revision 1.

CONCLUSIONS

This memorandum has demonstrated the proposed building height increase for 35 Laurel Street can be adequately serviced based on the Servicing Scheme proposed by Stantec in the December 2024 *Functional Site Servicing and Stormwater Management Report – 35 Laurel Street (Previously 75 Breezehill Avenue) Revision 1*, and drawings GP-1 and SSP-1 (Rev.3, 24.12.04). We trust this addresses the City of Ottawa's concerns to your satisfaction. Should you have any further questions, please do not hesitate to contact the undersigned.

Regards,

Stantec Consulting Ltd.

Ziyi Wang
Engineering Graduate
Phone: 613 784 2305
Ziyi.Wang@stantec.com

Alyssa Gladish P.Eng.
Project Engineer
Phone: 587 7211241
Alyssa.Gladish@stantec.com

Attachments:
Appendix A: Site Plan – 35 Laurel Street
Appendix B: Functional Water Servicing
B.1 Domestic Demand Calculations
B.2 FUS Calculations
B.3 Boundary Conditions
Appendix C: Functional Sanitary Servicing
C.1 Sanitary Sewer Design Sheet
C.2 Correspondence for Downstream Sewer Capacity

Reference: **Functional Site Servicing Review – 35 Laurel Street (Previously 75 Breezehill Avenue North): Building Height Increase Memorandum**

Appendix A Site Plan (February 2026)

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Reference: **Functional Site Servicing Review – 35 Laurel Street (Previously 75 Breezehill Avenue North): Building Height Increase Memorandum**

Appendix B Functional Water Servicing

B.1 Domestic Demand Calculations

35 Laurel Street (75 Breezehill Avenue North), Ottawa, ON - Domestic Water Demand Estimates

Site Plan provided by RLA Architecture (2026-02-16)

Stantec Project No. 160401738 / 160402328

Created By:	P. Mott	**Revision No.**	3
Date Created:	6/13/2023	**Revision Date:**	6/17/2026
Checked By:	A. Gladish	**Revision By:**	Z. Wang

Densities as per City Guidelines:		
Apartment Units		
Studio	1.4	ppu
1 Bedroom	1.4	ppu
1 Bedroom + Study	2.1	ppu
2 Bedroom	2.1	ppu
3 Bedroom	3.1	ppu

Building ID	Commerical Area (m²)	No. of Units	Population[1]	Daily Rate of Demand [2 3] (L/cap/day or L/ha/day)	Avg Day Demand		Max Day Demand [4 5]		Peak Hour Demand [4 5]	
					(L/min)	(L/s)	(L/min)	(L/s)	(L/min)	(L/s)
Building A & Building B										
Apartment Units										
Studio		56	78	280	15.2	0.25	38.1	0.64	83.8	1.40
1 Bedroom		151	211	280	41.1	0.69	102.8	1.71	226.1	3.77
1 Bedroom + Study		85	179	280	34.7	0.58	86.8	1.45	190.9	3.18
2 Bedroom		221	464	280	90.2	1.50	225.6	3.76	496.3	8.27
3 Bedroom		30	93	280	18.1	0.30	45.2	0.75	99.5	1.66
Total Building A & B		**543**	**1025**	**1400**	**199.4**	**3.32**	**498.5**	**8.31**	**1096.6**	**18.28**
Total Commercial Area	425			28000	0.8	0.014	1.2	0.021	2.2	0.037
Total Site :		**543**	**1025**		**200.2**	**3.3**	**499.7**	**8.3**	**1098.8**	**18.3**

1 Population density for all residential units based on an population densities provided in Table 4.1 - Per Unit Populations of the City of Ottawa Water Distribution Design Guidelines (Dec 2025).

2 Average day water demand for residential areas: 280 L/cap/d
Average day water demand for commercial areas: 28,000 L/ha/d - Per Table 4.2 Consumption Rates for subdivisions of 501 to 3,000 persons (City of Ottawa Water Distribution Design Guidelines, Dec 2025)

3 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 for residential

peak hour demand rate = 2.2 x maximum day demand rate for residential

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

maximum daily demand rate = 1.5 x average day demand rate

peak hour demand rate = 1.8 x maximum day demand rate

Reference: **Functional Site Servicing Review – 35 Laurel Street (Previously 75 Breezehill Avenue North): Building Height Increase Memorandum**

B.2 FUS Calculations

Stantec

FUS Fire Flow Calculation Sheet - 2020 FUS Guidelines

Stantec Project #: 160401738
Project Name: 35 Laurel Street
Date Created: 9/27/2023
Fire Flow Calculation #: 1
Description: Building A

Created By: P. Mott
Revision No.: 3
Revised By: Z. Wang
Revision Date: 7/7/2026
Checked By: A. Gladish

Notes: Building A: 31-storey residential high-rise with indoor amenities. Largest floor area Levels 3-6. Information taken from Site Plan by RLA architecture dated February 16, 2026. Sprinklered with floor assemblies / load bearing walls as 1hr rated assemblies per OBC 3.2.2.52

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	-
		1083.5	1083.5	1083.5	1083.5	1024	554.9	554.9	554.9	554.9	554.9	1625.25	-
3	Determine Required Fire Flow	($F = 220 \times C \times A^{1/2}$). 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	10.1 to 20	26	2	41-60	Type I-II - Unprotected Openings		YES			0%	119
		East	> 30	0	0	0-20	Type V		NO			0%	
		South	10.1 to 20	26	27	> 100	Type I-II - Protected Openings		YES			0%	
		West	20.1 to 30	17	2	21-49	Type V		NO			2%	
7	Determine Final Required Fire Flow	Total Required Fire Flow in L/min, Rounded to Nearest 1000L/min											3000
		Total Required Fire Flow in L/s											50.0
		Required Duration of Fire Flow (hrs)											1.25
		Required Volume of Fire Flow (m^3)											225

Stantec

FUS Fire Flow Calculation Sheet - 2020 FUS Guidelines

Stantec Project #: 160401738
Project Name: 35 Laurel Street
Date Created: 9/27/2023
Fire Flow Calculation #: 2
Description: Building B

Created By: P. Mott
Revision No.: 3
Revised By: Z. Wang
Revision Date: 7/7/2026
Checked By: A. Gladish

Notes: Building A: 31-storey residential high-rise with indoor amenities. Largest floor area Levels 3-6. Information taken from Site Plan by RLA architecture dated February 16, 2026. Sprinklered with floor assemblies / load bearing walls as 1hr rated assemblies per OBC 3.2.2.52

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	-
		1060	1060	1060	1060	1060	536	536	536	536	536	1590.5	-
3	Determine Required Fire Flow	($F = 220 \times C \times A^{1/2}$). 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					-	-
		North	10.1 to 20	26	27	> 100	Type I-II - Protected Openings				YES	0%	952
		East	> 30	0	0	0-20	Type V				NO	0%	
		South	> 30	0	0	0-20	Type V				NO	0%	
		West	3.1 to 10	18	2	21-49	Type V				NO	16%	
7	Determine Final Required Fire Flow	Total Required Fire Flow in L/min, Rounded to Nearest 1000L/min											4000
		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

Gladish, Alyssa

From: Mottalib, Abdul <Abdul.Mottalib@ottawa.ca>
Sent: Tuesday, November 14, 2023 4:41 PM
To: Gladish, Alyssa
Cc: Mottalib, Abdul; McCreight, Andrew
Subject: FW: Sanitary Sewer Capacity & Updated Boundary Conditions
Attachments: 75 Breezehill Ave North November 2023.pdf

Please see the email below.

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Thanks,

Abdul
Mohammad Abdul Mottalib, P. Eng.
Extension: 27798

From: …
Sent: November 14, 2023 10:41 AM
To: Mottalib, Abdul <Abdul.Mottalib@ottawa.ca>
Cc: ……..
Subject: RE: Sanitary Sewer Capacity & Updated Boundary Conditions

Good morning Abdul,

The following are boundary conditions, HGL, for hydraulic analysis at 75 Breezehill Avenue North, (zone 1W) assumed to be a dual connection to the 203 mm watermain on Laurel Street (see attached PDF for location).

Minimum HGL: 107.4 m

Maximum HGL: 115.1 m

Maximum Day + Fire Flow (67 L/s): 104.3 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.

From: Mott, Peter
Sent: Wednesday, October 11, 2023 5:07 PM
To: Mottalib, Abdul <Abdul.Mottalib@ottawa.ca>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Subject: Sanitary Sewer Capacity & Updated Boundary Conditions

Good afternoon Abdul,

Sanitary Servicing

As part of the functional servicing for the proposed development on 75 Breezehill Avenue North, we would like to confirm if there is sufficient capacity within the receiving 300 mm diameter sanitary sewer within Breezehill Avenue North to receive an additional peak flow of **13.0 L/s** from the proposed development, based on site plan updates. I don't imagine that this marginal increase should have any impact on your capacity analysis, but wanted your confirmation as outlined in the pre-consultation. Please find our sanitary design sheet and location map attached for your information.

Water Servicing

Additionally, we would like to request updated boundary conditions based on the changes to the unit count for the development. Please find attached the key map showing the location of the proposed development with the identified connection locations, domestic water demand calculations, fire flow calculations, a conceptual site plan, and the fire hydrant coverage map with associated tables to demonstrate adequate emergency flow for the proposed development.

A summary of the proposed site is provided below:

We anticipate two (2) connection to service the development: two connections to the existing 203 mm diameter watermain within Laurel Street. The following connection is expected for servicing:

➢Connections (2) to the existing 203 mm watermain on Laurel Street (Existing).

For the purpose of the boundary conditions request, may you please provide us with the boundary conditions for the following servicing options:

i. Watermain connections to the above listed connections; assuming a fire flow requirement of **4,000 L/min (67 L/s)** for the site in addition to the domestic water demands provided below.

- The intended land use is a combination of residential and commercial/mixed use per the summary provided in the Domestic Demands spreadsheet.
- Estimated fire flow demand per the FUS methodology: 4,000 L/min (67 L/s) for the worst-case scenario (Building A)
- Domestic water demands for the entire development:
    - **Average day: 201.0 L/min (3.35 L/s)**
    - **Maximum day: 501.5 L/min (8.36 L/s)**
    - **Peak hour: 1102.6 L/min (18.38 L/s)**

Thank you for your time and please contact me at your earliest convenience if any additional information or clarification is required.

Best regards,

Peter Mott EIT
Engineering Intern, Community Development

Mobile: +1 (613) 897-0445
Teams: +1 (613) 724-4370
Peter.Mott@stantec.com
Stantec
300 - 1331 Clyde Avenue
Ottawa ON K2C 3G4

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Gladish, Alyssa

From: Wu, John <John.Wu@ottawa.ca>
Sent: Monday, November 4, 2024 11:22 AM
To: Gladish, Alyssa
Cc: Wessel, Shawn
Subject: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

No changes for the BC.

John Wu, P.Eng.
Senior Engineer, Infrastructure Approval
Development Review (Urban Services)
Ingenieur Principal, Approbation de L'infrastructure
Examen des projects d'amenagement (Services urbains)
Planning, Infrastructure and Economic Development Department
Services de planification, d'infrastructure et de développement économique
City of Ottawa | Ville d'Ottawa
110 Laurier Avenue West. Ottawa, ON | 110, avenue. Laurier Ouest. Ottawa (Ontario) K1P 1J1
613.580.2424 ext./poste 27734, fax/téléc:613-560-6006, john.wu@ottawa.ca

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Gladish, Alyssa

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: Friday, November 1, 2024 5:07 PM
To: Gladish, Alyssa
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

Thanks Alyssa

I have forwarded to our Water Dept. for comment.

As I am away, please contact John Wu at John.Wu@ottawa.ca as I have asked them to send to him in the interim.

Have a nice weekend.

Please be advised that I will be away Nov 4-12 inclusive. Please contact the City File Lead or Sr. Engineer in my absence.

Regards,

Shawn Wessel, A.Sc.T.,rcji
Pronouns: he/him | Pronom: il
Project Manager - Infrastructure Approvals
Gestionnaire de projet – Approbation des demandes d'infrastructures

Development Review Central Branch | Direction de l'examen des projets d'aménagement, Centrale
Planning, Development & Building Services Department (PDBS) | Direction générale des services de la planification, de l'aménagement et du bàtiment (DGSPAB)
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(613) 580 2424 Ext. | Poste 33017
Int. Mail Code | Code de Courrier Interne 01-14
shawn.wessel@ottawa.ca

*****Please also note that, while my work hours may be affected by the current situation and am working from home, I still have access to email, video conferencing and telephone. Feel free to schedule video conferences and/or telephone calls, as necessary.*****

From: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Sent: Friday, November 1, 2024 4:10 PM

To: Wessel, Shawn <shawn.wessel@ottawa.ca>
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

Hello Shawn,

Thank you. I appreciate the prompt response regarding the sanitary servicing.

Regarding the water servicing:

1. Domestic **water demands** have decreased from the previous submission and required fire flow remains unchanged at 4,000 L/min (67 L/s).

	Demand Type	Population	Area (ha)	AVDY (L/s)	MXDY (L/s)	PKHR (L/s)
1st Submission	Commercial		0.04	0.01	0.02	0.04
	Residential	1028	-	3.34	8.33	17.9
	Total Site	**1028**	**0.04**	**3.35**	**8.35**	**18.4**
2nd Submission	Commercial		0.04	0.01	0.02	0.04
	Residential	911	-	2.95	7.38	16.23
	Total Site	**911**	**0.04**	**2.96**	**7.4**	**16.27**
Difference	**Total Site**	**-117**	**0**	**-0.39**	**-0.95**	**-2.13**

   Since the domestic water demands have decreased, and fire flow remains unchanged, please confirm that the boundary conditions received Nov 14, 2023, (attached) are sufficient for the current submission.

Thank you very much and wishing you also have an excellent weekend.

Sincerely,
Alyssa

Alyssa Gladish E.I.T.
Project Manager, Community Development

Direct: 780 917-8567
Mobile: 587 721-1241
Alyssa.Gladish@stantec.com

Stantec
300-1331 Clyde Avenue
Ottawa ON K2C 3G4

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: Friday, November 1, 2024 3:37 PM

Appendix C Functional Sanitary Servicing

C.1 Sanitary Sewer Calculation Sheet

Stantec

SUBDIVISION:

35 LAUREL STREET
BUILDING HEIGHT INCREASE

REVISION DATE:	7/7/2026
REVISION NO.:	3
DESIGNED BY:	PM
REVISED BY:	ZW
CHECKED BY:	AG

SANITARY SEWER DESIGN SHEET

(City of Ottawa)

FILE NUMBER: 160402328

DESIGN PARAMETERS

MAX PEAK FACTOR (RES.)=	4.0	AVG. DAILY FLOW / PERSON	280 l/p/day	MINIMUM VELOCITY	0.60 m/s
MIN PEAK FACTOR (RES.)=	2.0	COMMERCIAL	28,000 l/ha/day	MAXIMUM VELOCITY	3.00 m/s
PEAKING FACTOR (INDUSTRIAL):	2.4	INDUSTRIAL (HEAVY)	55,000 l/ha/day	MANNINGS n	0.013
PEAKING FACTOR (ICI >20%):	1.5	INDUSTRIAL (LIGHT)	35,000 l/ha/day	BEDDING CLASS	B
PERSONS / 1 BEDROOM & STUDIO	1.4	INSTITUTIONAL	28,000 l/ha/day	MINIMUM COVER	2.50 m
PERSONS / 2 BEDROOM & 1 BEDROOM WITH STUDY	2.1	INFILTRATION	0.33 l/s/Ha	HARMON CORRECTION FACTOR	0.8
PERSONS / 3 BEDROOM	3.1				

LOCATION			RESIDENTIAL AREA AND POPULATION									COMMERCIAL		INDUSTRIAL (L)		INDUSTRIAL (H)		INSTITUTIONAL		GREEN / UNUSED		C+I+I	INFILTRATION			TOTAL	PIPE							
AREA ID	FROM	TO	AREA	UNITS			POP.	CUMULATIVE		PEAK	PEAK	AREA	ACCU.	AREA	ACCU.	AREA	ACCU.	AREA	ACCU.	AREA	ACCU.	PEAK	TOTAL	ACCU.	INFILT.	FLOW	LENGTH	DIA	MATERIAL	CLASS	SLOPE	CAP.	CAP. V	VEL.	VEL.
NUMBER	M.H.	M.H.		1 BED & STUDIO	2 BED & 1BED +STUDY	3 BED		AREA	POP.	FACT.	FLOW		AREA		AREA		AREA		AREA		AREA	FLOW	AREA	AREA	FLOW							(FULL)	PEAK FLOW	(FULL)	(ACT.)
			(ha)					(ha)			(l/s)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(l/s)	(ha)	(ha)	(l/s)	(l/s)	(m)	(mm)			(%)	(l/s)	(%)	(m/s)	(m/s)
BLDG A, BLDG B	BLDG B	SAN 1	0.255	207	306	30	1025	0.255	1025	3.234	10.7	0.043	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.255	0.255	0.1	10.9	2.6	200	PVC	SDR 35	1.24	37.2	**29.1%**	1.17	0.86
G1A	SAN1	EXISTING	0.362	0	0	0	0	0.617	1025	3.234	10.7	0.000	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.362	0.617	0.2	11.0	1.5	200	PVC	SDR 35	1.04	34.1	**32.2%**	1.07	0.80

Notes:

1. Unit counts taken from RLA Architecture Site Plan provided on Feburary 16, 2026
2. Studio apartments assumed to have ppu of 1.4; One bedroom assumed to have ppu of 1.4; One bedroom with study assumed to have ppu of 2.1
3. See Figure FIG-2 for functional sanitary drainage plan

Reference: **Functional Site Servicing Review – 35 Laurel Street (Previously 75 Breezehill Avenue North): Building Height Increase Memorandum**

C.2 Correspondence for Downstream Sewer Capacity

Gladish, Alyssa

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: Friday, November 1, 2024 3:37 PM
To: Gladish, Alyssa
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

My apologies Alyssa

As there are no other options and Laurel is the preferred option, a connection to that Trunk Sewer on Laurel is acceptable.

For some reason I thought that one was a local sewer there also.

Sorry about the confusion.

Have a nice weekend!

Please be advised that I will be away Nov 4-12 inclusive. Please contact the City File Lead or Sr. Engineer in my absence.

Regards,

Shawn Wessel, A.Sc.T.,rcji
Pronouns: he/him | Pronom: il
Project Manager - Infrastructure Approvals
Gestionnaire de projet – Approbation des demandes d'infrastructures

Development Review Central Branch | Direction de l'examen des projets d'aménagement, Centrale
Planning, Development & Building Services Department (PDBS) | Direction générale des services de la planification, de l'aménagement et du bàtiment (DGSPAB)
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(613) 580 2424 Ext. | Poste 33017
Int. Mail Code | Code de Courrier Interne 01-14
shawn.wessel@ottawa.ca

Please consider the environment before printing this email

*****Please also note that, while my work hours may be affected by the current situation and am working from home, I still have access to email, video conferencing and telephone. Feel free to schedule video conferences and/or telephone calls, as necessary.*****

From: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Sent: Friday, November 1, 2024 2:19 PM
To: Wessel, Shawn <shawn.wessel@ottawa.ca>
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

Hello Shawn,

Thank you for your email.

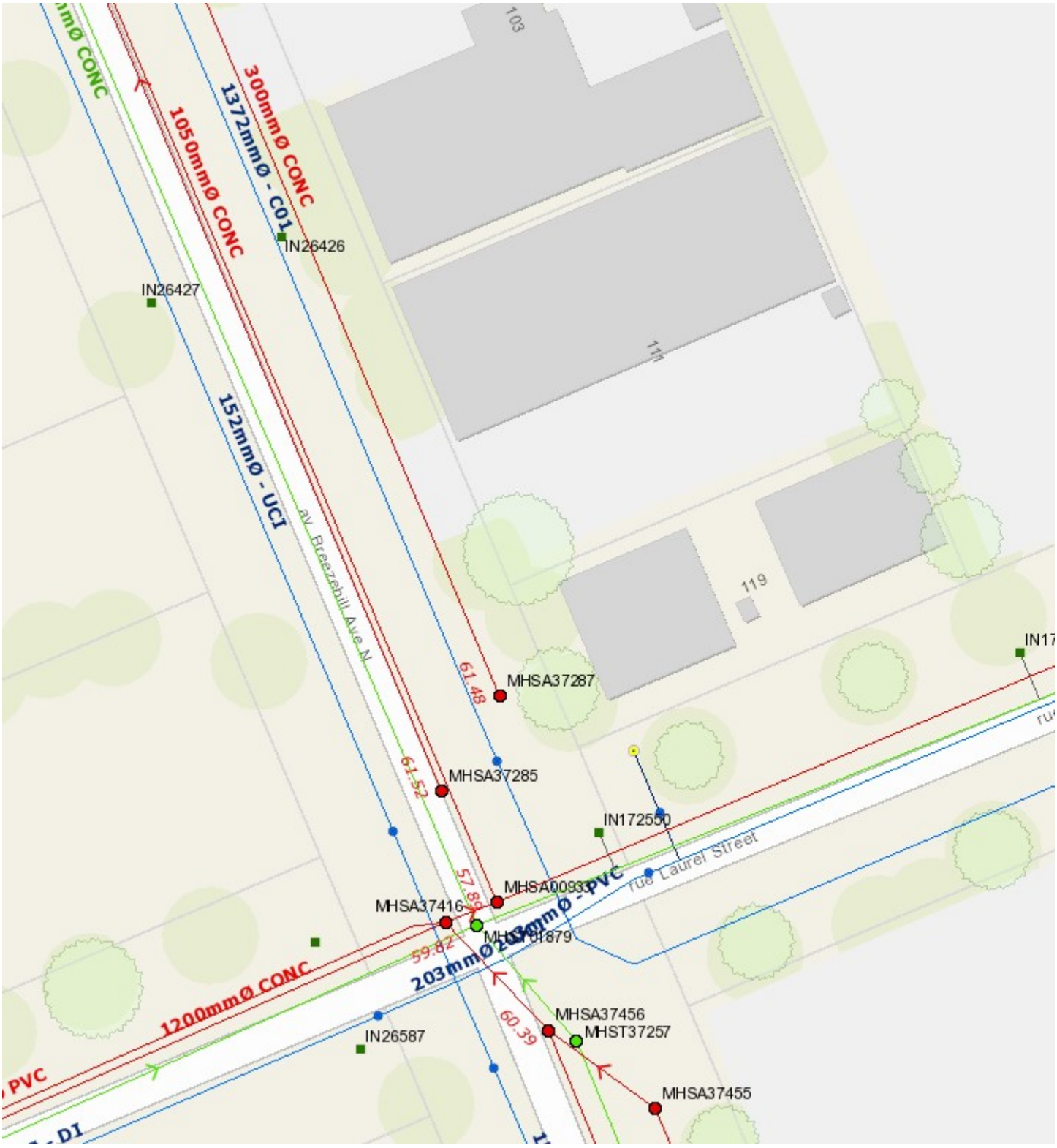
1. Can you please also provide a response for question #1 below?

2. Sanitary:

   Thank you for re-confirming the downstream sanitary sewer capacity.

   Thank you for confirming that a sanitary connection to Laurel is the preferred option to avoid encumbering the parkland area, which fronts Breezehill Avenue. This was my understanding from our meeting September 23, 2024.

   During the September 23, 2024 meeting you indicated that Asset Management was allowing for the connection to the trunk sewer for this site, because we have to make the sanitary connection to Laurel Street to avoid encumbering the parkland, the trunk sewer has the capacity to receive the projected flows and because there are no local sanitary sewers in Laurel Street (it is the only pipe available). Please confirm this is correct, and that we may proceed with the sanitary servicing design.



Thank you kindly for your time,
Alyssa

Alyssa Gladish E.I.T.
Project Manager, Community Development

Direct: 780 917-8567
Mobile: 587 721-1241
Alyssa.Gladish@stantec.com

Stantec
300-1331 Clyde Avenue
Ottawa ON K2C 3G4

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: Friday, November 1, 2024 1:57 PM
To: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

Hi Alyssa

Laurel is the preferred option, due to Park location and local sewer available, in case I didn't make that clear.

Have a nice weekend!

Thank you

Please be advised that I will be away Nov 4-12 inclusive. Please contact the City File Lead or Sr. Engineer in my absence.

Regards,

Shawn Wessel, A.Sc.T.,rcji
Pronouns: he/him | Pronom: il
Project Manager - Infrastructure Approvals
Gestionnaire de projet – Approbation des demandes d'infrastructures

Development Review Central Branch | Direction de l'examen des projets d'aménagement, Centrale
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shawn.wessel@ottawa.ca

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*****Please also note that, while my work hours may be affected by the current situation and am working from home, I still have access to email, video conferencing and telephone. Feel free to schedule video conferences and/or telephone calls, as necessary.*****

From: Wessel, Shawn
Sent: Friday, November 1, 2024 1:50 PM
To: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

Hello Alyssa

From discussions with Nishant, who is now with the modeling group with Eric Tousignant, I have been asked to relay the following:

Either of the two local sewers (300 mm) are to be used and the trunk sewer is to be avoided. There is ample capacity in both. Trunk sewer is deep, a critical asset and Asset Management will only allow connection under certain circumstances, one being the only sewer available and is on a case-by-case basis, always.
No sanitary capacity concerns on Laurel or Breezehill for the proposed 9.8L/s

A park is proposed for N/W corner of property and next to ROW. Parks do not permit servicing infrastructure within their park lands and generally do not want any SWM works within said lands.

If you require additional information or clarification, please do not hesitate to contact me anytime.

Thank you

Please be advised that I will be away Nov 4-12 inclusive. Please contact the City File Lead or Sr. Engineer in my absence.

Regards,

Shawn Wessel, A.Sc.T.,rcji
Pronouns: he/him | Pronom: il
Project Manager - Infrastructure Approvals
Gestionnaire de projet – Approbation des demandes d'infrastructures

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*****Please also note that, while my work hours may be affected by the current situation and am working from home, I still have access to email, video conferencing and telephone. Feel free to schedule video conferences and/or telephone calls, as necessary.*****

From: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Sent: Monday, October 28, 2024 2:37 PM
To: Wessel, Shawn <shawn.wessel@ottawa.ca>
Subject: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132
Importance: High

Hello Shawn,

I wanted to follow-up with you regarding the 35 Laurel Street development (previously 75 Breezehill Avenue North) – City of Ottawa File No. PC2024-0132.

1. Domestic **water demands** have decreased from the previous submission and required fire flow remains unchanged at 4,000 L/min (67 L/s).

	Demand Type	Population	Area (ha)	AVDY (L/s)	MXDY (L/s)	PKHR (L/s)
1st Submission	Commercial		0.04	0.01	0.02	0.04
	Residential	1028	-	3.34	8.33	17.9
	Total Site	**1028**	**0.04**	**3.35**	**8.35**	**18.4**
2nd Submission	Commercial		0.04	0.01	0.02	0.04
	Residential	911	-	2.95	7.38	16.23
	Total Site	**911**	**0.04**	**2.96**	**7.4**	**16.27**
Difference	**Total Site**	**-117**	**0**	**-0.39**	**-0.95**	**-2.13**

   a) Since the domestic water demands have decreased, and fire flow remains unchanged, please confirm that the boundary conditions received for the first submission (Nov 14, 2023, attached) are sufficient for the current submission.

2. **Sanitary** peak flows have decreased from 11.1 L/s to 9.8L/s from the first to the current submission, respectively.

   a. Please confirm that the 1050mm diameter concrete collector sewer on Laurel Street and the downstream infrastructure has the capacity to receive the proposed 9.8 L/s peak sanitary flows for the proposed development.

   b. Please confirm in writing that the servicing connection to the 1050mm diameter concrete collector sewer on Laurel Street is the preferred sanitary servicing connection option.

   c. The construction drawings indicate that a sanitary sewer lateral was connected to the 1050 mm sewer during the upgrade work completed in 2023-2024 (highlighted yellow in the second PDF attached). Do you have any information regarding the size, material, and invert of this lateral?

Thank you,
Alyssa

Alyssa Gladish E.I.T.
Project Manager, Community Development

Direct: 780 917-8567
Mobile: 587 721-1241
Alyssa.Gladish@stantec.com

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