TATHAM ENGINEERING

Enhancing our communities

# 6772 Rocque Street, City of Ottawa

## SITE SERVICING REPORT

Kenvest Construction Inc.

File 526004 | May 11, 2026

# Document Control

File:

**526004**

Date:

**May 11, 2026**

Prepared by:

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|---|---|
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| Issue | Date | Description |
|---|---|---|
| 1 | April 30, 2026 | Draft Site Servicing Report |
| 2 | May 11, 2026 | Site Servicing Report |

# Document Contents

### Tables



### Figures



### Drawings



### Appendices

# 1 Introduction

Tatham Engineering Limited (Tatham) has been retained by Kenvest Construction Inc. to prepare a Site Servicing Report in support of a Zoning By-law Amendment (ZBA) and Site Plan Approval (SPA) to allow for a proposed 263 m$^2$ four-storey residential building, consisting of four one-bedroom and eight two-bedroom units, complete with parking and landscaped areas at 6772 Rocque Street in the City of Ottawa. Specifically, this report has been prepared to confirm the servicing designs for the site are in accordance with the appropriate municipal guidelines and the surrounding infrastructure has adequate capacity to service the development.

The site is approximately 0.07 ha and currently consists of a one storey building, a shed, greenspace and a driveway fronting Rocque Street.

The site is currently zoned Institutional (INZ) with adjacent properties being zoned Neighbourhood Zones 4 and 5 (N4C & N5C respectively). The site is bounded by Rocque Street to the north, the rear access to the Paroisse St-Joseph d'Orléans Catholic Church property to the east, an open space on the church property to the south and a residential dwelling to the west. A key plan illustrating the site location is provided below, and on the drawings enclosed at the back of this report.

**Figure 1: Existing Site Location**


The servicing designs included herein are based on a topographic survey completed by Farley, Smith & Denis Surveying Ltd. completed on January 14th, 2026.

# 2 Water Supply and Fire Protection

## 2.1 EXISTING SITE CONDITIONS

In the existing conditions, it is assumed a minimum 19 mm diameter water service currently services the site. There is an existing 152 mm diameter watermain on Rocque Street providing a service connection opportunity for the proposed development.

There is one fire hydrant within close proximity to the site which can be used for fire protection for the proposed development. The contributions of the existing nearby fire hydrant toward the proposed development's required fire flow are described in further detail in the sections below.

## 2.2 DOMESTIC WATER DEMANDS

The average day water consumption rate and maximum day and peak hour peaking factors used to calculate the water supply demands for the proposed development are based on the 2025 City of Ottawa Design Guidelines for Water Distribution and the 2008 MOE Design Guidelines for Drinking-Water Systems.

Based on a residential average day water consumption rate of 280 L/c/d, maximum day peaking factor of 9.5 (multiplier with average day), peak hour peaking factor of 14.3 (multiplier with maximum day) respectively, the water demand calculations for the proposed site confirm an average daily water demand of 0.07 L/s, a maximum daily demand of 0.69 L/s, and a peak hourly demand of 1.04 L/s. The water demands shall be re-confirmed by the mechanical engineer at the building permit phase.

The above water demands do not include allowances for fire protection (i.e. sprinkler systems, etc.), irrigation, etc.

The water demand calculations are included in Appendix A.

## 2.3 WATER SERVICE SIZING

Water service sizing calculations for the proposed condition have been completed using the demands established in Section 2.2 above.

Boundary condition results for the proposed development were provided by the City of Ottawa and utilized to determine pressures for maximum day and peak hour scenarios as well as a third scenario for maximum day plus fire flow. The calculated pressures were found to be within the City of Ottawa pressure and demand objectives per Section 4.2.2 of the City of Ottawa Design Guidelines for Water Distribution, which are in conformity with MECP guidelines. The following pressures were calculated for the existing conditions:

- A maximum day demand pressure range of 64.8 to 72.5 psi which is within the recommended 50 to 80 psi MECP range;
- A peak hour demand pressure range of 64.7 to 72.4 psi which is within the 40 to 80 psi MECP range; and

Based on the above, the proposed building will be serviced with a 50 mm diameter water service, from the existing municipal watermain on Rocque Street to the four-storey, 12-unit, residential building.

The water service sizing and pressure calculations are included in Appendix A.

The existing municipal watermain on Rocque Street and the required 50 mm diameter water service to the proposed building are shown on the Site Servicing Plan (Drawing SS-1).

## 2.4 FIRE PROTECTION

The fire flow demand was calculated in accordance with the 2024 Ontario Building Code (OBC, 2024). This method is based on building occupancy, size, construction and exposures, as well as minimum water supply duration requirements. The fire flow calculations resulted in a fire water demand of 2,700 L/min.

The proposed building is located within 90 m of a hydrant, in compliance with OBC requirements. Fire flow protection can be provided by the following hydrant, which is within 150 m of the proposed building:

- One existing Class AA blue bonnet hydrant located approximately 50m west of the proposed building, at the end of Rocque Street;

Fire hydrant bonnets are color coded to indicate the available flow at a residual pressure of 150 kPa (20 psi), in accordance with the NFPA 291 Fire Flow Testing and Marking of Hydrants Code and Table 4.9 within the 2025 City of Ottawa Design Guidelines for Water Distribution. The existing hydrant near the site consists of a blue bonnet and as such is Class AA-rated. As summarized in Table 1, the required demand of 2,700 L/min for fire protection of the proposed building is available from the existing hydrant on Rocque Street.

**Table 1: Hydrants Required for Fire Flow**

| HYDRANT CLASS | DISTANCE TO BUILDING (m)[1] | CONTRIBUTION TO REQUIRED FIRE FLOW (L/min) | NUMBER OF USABLE NEARBY HYDRANTS | MAXIMUM FLOW TO BE CONSIDERED (L/min) | CUMULATIVE MAXIMUM FLOW TO BE CONSIDERED (L/min) |
|---|---|---|---|---|---|
| AA | ≤ 75 | 5,700 | 1 | 5,700 | 5,700 |
| AA | > 75 & ≤ 150 | 3,800 | 0 | 0 | |
| A | ≤ 75 | 3,800 | 0 | 0 | |
| A | > 75 & ≤ 150 | 2,850 | 0 | 0 | |
| B | ≤ 75 | 1,900 | 0 | 0 | |
| B | > 75 & ≤ 150 | 1,500 | 0 | 0 | |
| C | ≤ 75 | 800 | 0 | 0 | |
| C | > 75 & ≤ 150 | 800 | 0 | 0 | |

Notes: [1.] Distance of contributing hydrant from the structure, measured in accordance with NFPA 1.

A hydrant flow test is recommended to confirm the exisitng hydrant class, thereby confirming adequate flow and pressure is available for fire protection.

The fire flow calculations are included in Appendix A.

# 3 Sewage Collection

## 3.1 EXISTING SITE CONDITIONS

In the existing conditions, it is assumed a minimum 135 mm diameter sanitary service currently services the site. There is an existing 250 mm diameter sanitary sewer on Rocque Steet providing a service connection opportunity for the proposed development.

## 3.2 SEWAGE FLOWS

Sewage flow calculations for the proposed development have been completed using the 2025 City of Ottawa Sewer Design Guidelines.

The average daily sewage design flow for the proposed development was determined to be 0.09 L/s, inclusive of extraneous flow. The peak daily sewage flow is anticipated to be 0.31 L/s.

The increased flow to the downstream sanitary sewer system is considered negligible as the receiving 250 mm diameter sanitary sewer within Rocque Street has an approximate capacity of 42.4 L/s. The calculated site peak flow of 0.31 L/s represents 0.7% of the full flow capacity of the receiving sewer. Thus, the proposed development is not expected to adversely affect the downstream sanitary sewer system and sufficient system capacity is available to service the development.

The sewage flow calculations are included in Appendix B.

## 3.3 SANITARY SERVICE SIZING

The design criteria used to size the sanitary service from the proposed building structure to the existing 250 mm diameter sanitary sewer on Rocque Street are as per the 2025 City of Ottawa Sewer Design Guidelines, the 2008 Ministry of the Environment, Conservation and Parks (MECP) Design Guidelines for Sewage Works, and the 2024 OBC. The design criteria are summarized as follows:

- Peak sewage flow derived from the Harmon formula (max 4.0);
- Permissible sewage velocity within MECP range of 0.6 and 3.0 m/s; and
- Peak extraneous flow of 0.33 L/s/ha per 2025 City of Ottawa Sewer Design Guidelines.

Based on the above criteria, the peak sewage flow was calculated to be 0.31 L/s, inclusive of extraneous flow. A 150 mm diameter sanitary service is proposed and will be sufficient to convey the peak sewage flows to the existing municipal sewage collection system on Rocque Street.

The sanitary service sizing calculations are included in Appendix B.

The proposed 150 mm diameter sanitary service is shown on the Site Servicing Plan (Drawing SS-1).

# 4 Erosion and Sediment Control

Erosion and sediment control will be implemented for all construction activities within the development site, including vegetation clearing, topsoil stripping, drive aisle and parking area construction, and stockpiling of materials. The principles considered and to be utilised to minimize erosion and sedimentation at the site and resultant negative environmental impacts consist of the following:

- Minimize disturbance activities where possible;
- Expose the smallest possible land area to erosion for the shortest possible time;
- Institute specified erosion control measures immediately;
- Implement sediment control measures before the outset of construction activities;
- Carry out regular inspections of erosion/sediment control measures and repair or maintain as necessary; and
- Seed or sod exposed soils as soon as possible after construction and keep chemical applications to suppress dust and control pests and vegetation to a minimum.

The proposed grading and building construction for the subject site will be carried out in such a manner a minimum amount of erosion occurs and such that sedimentation facilities control any erosion that does occur. Specific erosion, sediment, and pollution control measures included within the proposed design, which are to be utilized on-site, consist of the following:

- Installing and maintaining heavy duty silt fence, as per OPSD 219.130 along the perimeter of the site;
- Installing and maintaining a straw bale check dam, as per OPSD 219.180 upstream of the driveway entry culvert; and
- Bi-weekly inspections of control measures to be instituted through a monitoring and mitigation plan and repairs made as necessary.

The proposed erosion and sediment controls are shown on the Siltation and Erosion Control Plan (Drawing SC-1).

# 5 Summary

The proposed site development has been designed recognizing the pertinent Municipal, Agency, and Provincial guidelines along with site specific constraints and criteria.

The domestic water supply to the proposed building will be provided via a 50 mm diameter water service connected to the existing 152 mm diameter watermain on Rocque Street. The available fire flow from the nearby existing hydrant is sufficient to protect the proposed structure from fire. Water distribution boundary conditions provided by the City in April 2026 were received and used by Tatham to ensure adequate flow and pressure is provided from the municipal system to service the site.

A 150 mm diameter sanitary service is required from the building structure to the existing 250 mm diameter municipal sanitary sewer on Rocque Street. We have assumed the receiving municipal sanitary sewer system and the municipal wastewater treatment plant have adequate capacity to service the proposed development, however, these are required to be confirmed by the City.

We trust this report is sufficient to confirm the proposed development can be adequately serviced with domestic and fire water supply and sewage collection.

# Appendix A:
# Water Supply Calculations

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# Water Demand Design Worksheet

| Project Details | | Prepared By | |
|---|---|---|---|
| 6772 Rocque Street | 526004 | David Fendler | May 11, 2026 |
| **Municipality** | | **Checked By** | |
| City of Ottawa | | Jeremy Ash | May 11, 2026 |

## Residential Flow

| Unit Type (Apartments) | Bachelor | 1 Bedroom | 2 Bedroom | 3 Bedroom | Total |
|---|---|---|---|---|---|
| Number of Units | | 4 | 8 | | 12 |
| Pop Density (cap/unit)[1] | | 1.4 | 2.1 | | - |
| Population | | 5.6 | 16.8 | | 22.4 |
| Per Capita Demand (L/day/cap)[2] | | 280 | 280 | | - |
| Average Day Demand (L/s) | | 0.02 | 0.05 | | 0.07 |

| Reference | | |
|---|---|---|
| | 1 | Table 4.1, City of Ottawa Design Guidelines for Water Distribution, Dated December 2025 |
| | 2 | Table 4.2, City of Ottawa Design Guidelines for Water Distribution, Dated December 2025 |

## Commercial/Industrial/ Institutional Flow

| Land Use | Commercial | Industrial | Institutional | Total |
|---|---|---|---|---|
| Area (ha) | | | | 0.00 |
| Area Demand (L/day/ha) | | | | - |
| Average Day Demand (L/s) | | | | 0.0 |

| Reference | | |
|---|---|---|
| | | |

## Fire Demand

| Max Required Fire Demand (L/s) | **45** | OBC |
|---|---|---|

## Peaking Factors

| Land Use | Residential | Commercial | Industrial | Institutional |
|---|---|---|---|---|
| Max Day Factor[3] | 9.5 | | | |
| Peak Hour Factor[3] | 14.3 | | | |

| Reference | | |
|---|---|---|
| | 3 | Table 3-3, MOE Design Guidelines for Drinking-Water Systems |

## Total Design Flows

| Average Day Demand (L/s) | 0.07 | Peak Hour Demand (L/s) | 1.04 |
|---|---|---|---|
| Maximum Day Demand (L/s) | 0.69 | Maximum Day + Fire Demand (L/s) | 45.69 |

## Additional Notes

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## Ontario Building Code

| | |
|---|---|
| **Tatham File no. :** | 526004 |
| **Project:** | 6772 Rocque Street |
| **Date:** | 11-May-26 |
| **Designed by:** | DVF |

$$Q = KVS_{Tot}$$

Where:

Q = minimum supply of water in litres

K = water supply coefficient from Table 1 of the Building Code

V = total building volume in cubic metres

$S_{Tot}$ = total spacial coefficient values from property line exposures on all sides to a maximum of 2
(Note: if property line runs parallel to road; measure from building to CL of road)

### Water supply coefficient (K)

**Table 3.1.2.1.**
**Major Occupancy Classification**
Forming Part of Sentence 3.1.2.1.(1)

| Column 1 Group | Column 2 Division | Column 3 Description of *Major Occupancies* |
|---|---|---|
| A | 1 | *Assembly occupancies* intended for the production and viewing of the performing arts |
| A | 2 | *Assembly occupancies* not elsewhere classified in Group A |
| A | 3 | *Assembly occupancies* of the arena type |
| A | 4 | *Assembly occupancies* in which occupants are gathered in the open air |
| B | 1 | Detention occupancies |
| B | 2 | Care and treatment occupancies |
| B | 3 | Care occupancies |
| C | --- | Residential occupancies |
| D | --- | Business and personal services occupancies |
| E | --- | Mercantile occupancies |
| F | 1 | High hazard industrial occupancies |
| F | 2 | Medium hazard industrial occupancies |
| F | 3 | Low hazard industrial occupancies |

**TABLE 1**
**WATER SUPPLY COEFFICIENT – K**

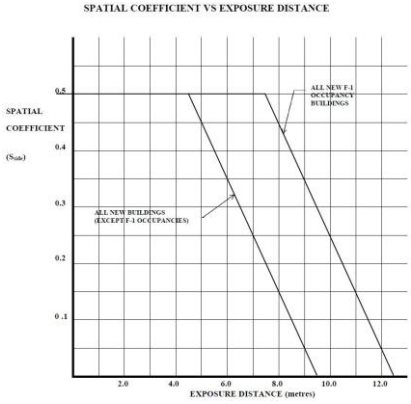
| TYPE OF CONSTRUCTION | Classification by Group or Division in Accordance with Table 3.1.2.1 of the Ontario Building Code: A-2, B-1, B-2, B-3, C, D | A-4, F-3 | A-1, A-3 | E, F-2 | F-1 |
|---|---|---|---|---|---|
| Building is of noncombustible construction with fire separations and fire-resistance ratings provided in accordance with Subsection 3.2.2. of the OBC, including loadbearing walls, columns and arches. | 10 | 12 | 14 | 17 | 23 |
| Building is of noncombustible construction or of heavy timber construction conforming to Article 3.1.4.6. of the OBC. Floor assemblies are fire separations but with no fire-resistance rating. Roof assemblies, mezzanines, loadbearing walls, columns and arches do not have a fire-resistance rating. | 16 | 19 | 22 | 27 | 37 |
| Building is of combustible construction with fire separations and fire-resistance ratings provided in accordance with Subsection 3.2.2. of the OBC, including loadbearing walls, columns and arches. Noncombustible construction may be used in lieu of fire-resistance rating where permitted in Subsection 3.2.2. of the OBC. | 18 | 22 | 25 | 31 | 41 |
| Building is of combustible construction. Floor assemblies are fire separations but with no fire-resistance rating. Roof assemblies, mezzanines, loadbearing walls, columns and arches do not have a fire-resistance rating. | 23 | 28 | 32 | 39 | 53 |
| **Column 1** | **2** | **3** | **4** | **5** | **6** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Type of Construction | Building is of combustible construction with fire separations and fire-resistance ratings provided in accordance with Subsection 3.2.2. of the OBC, including loadbearing walls, columns and arches. Noncombustible construction may be used in lieu of fire-resistance rating where permitted in Subsection 3.2.2. of the OBC. | 9.5 | C | Coefficient K | 18 | |

### Determine the Total Building Volume in Cubic Metres (V)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2 | Gross Floor Area | 263 | $m^2$ | Height of the Building | 11.46 | m | Total Volume | 3013.98 | $m^3$ |

### Determine the Total Spacial coefficient Values from Property Line Exposure on All Sides $S_{tot}$




| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3 | Distance on each side | North Side | 14 | m | $S_{side\ 1}$ | 0 | $S_{tot}$ | 1.625 | |
| | | East Side | 10.22 | m | $S_{side\ 2}$ | 0 | | | |
| | | South Side | 8.25 | m | $S_{side\ 3}$ | 0.125 | | | |
| | | West Side | 3.64 | m | $S_{side\ 4}$ | 0.5 | | | |

### Minimum Water Supply (Q)

| | | | | | |
|---|---|---|---|---|---|
| 4 | K | 18 | $Q = KVS_{Tot}$ | 88158.915 | L |
| | V | 3013.98 | $m^3$ | | |
| | $S_{tot}$ | 1.625 | | | |

### Minimum Water Supply Flow Rates

5

**TABLE 2**
**MINIMUM WATER SUPPLY FLOW RATES**

| Building Code, Part 3 Buildings | Required Minimum Water Supply Flow Rate (L/min.) |
|---|---|
| One-storey building with building area not exceeding 600$m^2$ (excluding F-1 occupancies) | 1800 |
| All other buildings | 2700 (If **Q** ≤ 108,000L)[1]<br>3600 (If **Q** > 108,000L **and** ≤ 135,000L)[1]<br>4500 (If **Q** > 135,000L **and** ≤ 162,000L)[1]<br>5400 (If **Q** > 162,000L **and** ≤ 190,000L)[1]<br>6300 (If **Q** > 190,000L **and** ≤ 270,000L)[1]<br>9000 (If **Q** > 270,000L)[1] |

| | | | | | |
|---|---|---|---|---|---|
| Is the Site Building One Storey? | FALSE | | min (as per OBC) | 2700 | L/min |
| | | | | 45 | L/s |

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# Pipe Pressure Losses

| Project Details | | Prepared By | |
|---|---|---|---|
| 6772 Rocque Street | 526004 | David Fendler | May 11, 2026 |
| Municipality | | Checked By | |
| City of Ottawa | | Jeremy Ash | May 11, 2026 |

## Water Service Pipe Sizing

$Q = VA$

Where: V = design velocity of 1.5 m/s x 3600 = 5400 m/h (as per OBC guidelines)

A = area of pipe = $(\pi/4) \times D^2$

Q = water supply flow rate to be accounted for in $m^3/h$ (Peak Hour Demand)

Minimum required pipe diameter: $d = (4Q/\pi V)^{1/2}$ (derived from Q = VA formula)

d = 0.030 m

d = 30 mm

Proposed Pipe Diameter: 50 mm

(Notes:
- Larger pipe size allows for additional safety buffer in case of potential changes at building permit stage.

## Piezometric Head Equation (Derived from Bernoulli's Equation)

$$h = \frac{p}{\gamma} + z$$

Where:

h = HGL (m)

p = Pressure (Pa)

γ = 9810 = Specific weight (N/m3)

z = 63.90 = Elevation of centreline of pipe (r

| ater Pressure at Rocque Street Connectic | | | |
|---|---|---|---|
| HGL (m) | | Pressure | |
| | | kPa | psi |
| Minimum = | 109.8 | 450.3 | 65.3 |
| Maximum = | 115.2 | 503.3 | 73.0 |
| Max. Day + Fire = | 107 | 422.8 | 61.3 |

Hazen Williams Equation

$$h_f = \frac{10.67 \times Q^{1.85} \times L}{C^{1.85} \times d^{4.87}}$$

Where:

$h_f$ = Head loss over the length of pipe (r

Q = Volumetric flow rate ($m^3/s$)

L = Length of pipe (m)

C = Pipe roughness coefficient

d = Pipe diameter (m)

Scenario 1: Maximum Daily Demand

| | | |
|---|---|---|
| Q (L/s) | 0.69 | |
| C | 100.00 | |
| L (m.) | 10.60 | |
| I.D. (mm) | 50.00 | |
| V (m/s) | 0.35 | |
| $h_f$ (m) | 0.07 | |
| Head Loss (psi) | 0.10 | |
| Min. Pressure (psi) | 65.21 | |
| Max. Pressure (psi) | 72.89 | |
| Service Obv. @ Street Connection (m) | 63.81 | |
| Service Obv. @ Building Connection (m) | 64.10 | |
| Pressure Adjustment (psi) | -0.41 | (due to service elevation difference from street to building) |
| Adjusted Min. Pressure (psi) | 64.80 | (must not be less than 50psi) |
| Adjusted Max. Pressure (psi) | 72.48 | (must not be more than 80psi) |

Scenario 2: Peak Hour Demand

| | | |
|---|---|---|
| Q (L/s) | 1.04 | |
| C | 100.00 | |
| L (m.) | 10.60 | |
| I.D. (mm) | 50.00 | |
| V (m/s) | 0.53 | |
| $h_f$ (m) | 0.15 | |
| Head Loss (psi) | 0.21 | |
| Min. Pressure (psi) | 65.10 | |
| Max. Pressure (psi) | 72.78 | |
| Service Obv. @ Street Connection (m) | 63.81 | |
| Service Obv. @ Building Connection (m) | 64.10 | |
| Pressure Adjustment (psi) | -0.41 | (due to service elevation difference from street to building) |
| Adjusted Min. Pressure (psi) | 64.69 | (must not be less than 40psi) |
| Adjusted Max. Pressure (psi) | 72.37 | (must not be more than 80psi) |

# Appendix B:
# Sewage Flow Calculations

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# Wastewater Flow Design Worksheet

| Project Details | | Prepared By | |
|---|---|---|---|
| 6772 Rocque Street | 526004 | Haoran Yu | May 11, 2026 |
| **Municipality** | | **Checked By** | |
| City of Ottawa | | Jeremy Ash | May 11, 2026 |

## Residential Flow

| Unit Type (Apartments) | Bachelor | 1 Bedroom | 2 Bedroom | 3 Bedroom | Total |
|---|---|---|---|---|---|
| Number of Units | | 4 | 8 | | 12 |
| Pop Density (cap/unit)[1] | | 1.4 | 2.1 | | - |
| Population | 0 | 5.6 | 16.8 | 0 | 22.4 |
| Per Capita Flow (L/day/cap)[2] | | 280 | 280 | | - |
| Average Day Flow (L/s) | 0.0 | 0.02 | 0.05 | 0.0 | 0.07 |

| Reference | | |
|---|---|---|
| | 1 | Table 4.1, City of Ottawa Design Guidelines for Sewer Design, Dated December 2025 |
| | 2 | Figure 4.3, City of Ottawa Design Guidelines for Sewer Design, Dated December 2025 |

## Commercial/Industrial/ Institutional Flow

| Land Use | Commercial | Industrial | Institutional | Total |
|---|---|---|---|---|
| Area (ha) | | | | 0.00 |
| Area Flow (L/day/ha)[3] | | | | - |
| Average Day Flow (L/s) | 0.0 | 0.0 | 0.0 | 0.0 |

| Reference | | |
|---|---|---|
| | 3 | |

## Peaking Factors

| Land Use | Residential (Harmon) | Commercial | Industrial | Institutional |
|---|---|---|---|---|
| Peaking Factor[4] | 4.00 | | | |

| Reference | | |
|---|---|---|
| | 4 | Figure 4.3, City of Ottawa Design Guidelines for Sewer Design, Dated December 2025 |

## Infiltration

| Serviced Area (ha) | 0.07 | Infiltration(L/s/ha) | **0.33** | Infiltration (L/s) | 0.02 |
|---|---|---|---|---|---|

## Total Design Flows

| Average Day Flow (L/s) | 0.09 | Peak Hour Flow (L/s) | 0.31 |
|---|---|---|---|

## Additional Notes

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# Sanitary Sewer Design Sheet

**Project Information**

| | |
|---|---|
| 6772 Rocque Street | 526004 |

**Drawing Reference**

| | |
|---|---|
| Site Servicing Plan | May 11-26 |

**Prepared By**

| | |
|---|---|
| Haoran Yu | May 11-26 |

**Reviewed By**

| | |
|---|---|
| Guillaume Courtois | May 11-26 |

**Municipality**

City of Ottawa

**Design Parameters**

| | |
|---|---|
| Average Day Flow | 0.09 $m^3$/day |
| Peak Hour Flow | 0.31 L/s |
| Manning's Coefficient (n) | 0.013 |
| Minimum Velocity | 0.6 m/s |
| Maximuym Velocity | 3.0 m/s |

| From | | | | To | | | | Peak Flow | | Pipe | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tag | Grade level (m) | Invert level (m) | Cover (m) | Tag | Grade level (m) | Invert level (m) | Cover (m) | Peak Flow (L/day) | Peak Flow (L/s) | Length (m) | Dia. (mm) | Slope (%) | Full Capacity (L/s) | Velocity Full (m/s) | $Q/Q_{full}$ (%) |
| BLDG | 63.20 | 61.00 | 2.05 | MAIN | 62.65 | 60.86 | 1.64 | 26,816 | 0.31 | 14.0 | 150 | 1.0% | 15.23 | 0.9 | 2.0 |