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# M E M O R A N D U M

**DATE:** JANUARY 20, 2026

**TO:** MOHAMMED FAWZI / JEAN-CHARLES RENAUD (CITY OF OTTAWA)

**FROM:** FRANÇOIS THAUVETTE, P.ENG.

**RE:** 314, 318 ATHLONE AVENUE AND 2006, 2020, 2026 SCOTT STREET
ADEQUACY OF PUBLIC SERVICES MEMORANDUM
CITY FILE: D-07-12-23-0019
NOVATECH PROJECT: 121302

**CC:** KEN H. (MORLEY HOPPNER) ALEX G. (COLONNADE),
PATRICK B. (HOBIN)

The configuration of the proposed multi-tower development located at 2026 Scott Street (including other adjacent properties to be merged) has been revised based on direction from the client. The revised proposal will now include **three** (3) towers above an underground parking structure instead of the previously proposed two-tower design. The **Development Servicing Study & Stormwater Management Report** (R-2023-003) and associated engineering plans, dated September 4th, 2024, were prepared as part of the previous Site Plan Control application for the site.

The purpose of this memorandum is to demonstrate to the City of Ottawa that the revised 3-tower development can be serviced by the nearby existing municipal infrastructure via a comparison to the previous servicing design plans and reports. This memorandum is being submitted in support of a new Zoning By-Law Amendment (ZBLA) application.

## Sanitary Servicing

The revised 3-tower development will be serviced by the local municipal sanitary sewers in Scott Street, similar to the previous 2-tower design. **Table 1** compares the theoretical sanitary flows for the previous design and the revised 3-tower design.

**Table 1: Theoretical Post-Development Sanitary Flows Comparison**

| | Unit Count | Design Population | Res. Peak Flow (L/s)* | Comm. Peak Flow (L/s)* | Infiltration Allowance (L/s)* | Sanitary Peak Flow (L/s)* |
|---|---|---|---|---|---|---|
| **Previous Two-Tower Design** | 856 | 1,445 | 15.50 | 0.02 | 0.20 | **15.72** |
| **Revised Three-Tower Design** | 857 | 1,384 | 15.19 | 0.01 | 0.21 | **15.41** |

*Represents rounded values



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As demonstrated in the table above, the theoretical peak sanitary flow for the revised 3-tower design represents a slight decrease from the previous 2-tower design. Furthermore, the City of Ottawa has confirmed that there are no capacity concerns with the existing municipal sewers for the revised 3-tower design peak flow. Refer to the attached sanitary flows calculation sheets and e-mail correspondence from the City of Ottawa for further details.

The intent is to generally maintain consistency with the previously proposed sanitary servicing design. Two separate sanitary services will be required to service Building 1 (on its own) and Buildings 2 & 3 (combined) due to internal mechanical constraints and the phased approach to the development. An updated sanitary sewage analysis and servicing design will be provided as part of the Site Plan Control application to the City of Ottawa.

### Water Supply for Domestic Use and Firefighting

Similar to the previous 2-tower design, the revised 3-tower development will be serviced by twin service laterals off the 200mm dia. local municipal watermain in Scott Street. **Table 2** identifies the theoretical water demands for the previous design and the revised 3-tower design.

**Table 2: Theoretical Post-Development Water Demands Comparison**

| | Unit Count | Design Population | Avg. Daily Demand (L/s)* | Max Daily Demand (L/s)* | Peak Hour Demand (L/s)* | FUS Fire Flow Range (L/s) |
|---|---|---|---|---|---|---|
| **Previous Two-Tower Design** | 856 | 1,445 | 4.7 | 11.8 | 25.8 | 200-217 |
| **Revised Three-Tower Design** | 857 | 1,384 | 4.5 | 11.2 | 24.8 | 133-150 |

*Represents rounded values, including commercial.

As demonstrated in the table above, the theoretical water demands for the revised 3-tower design represents a slight decrease from the previous 2-tower design. Furthermore, the required fire flow for the revised 3-tower design is anticipated to be significantly lower than the previous design. The existing municipal watermain should therefore have adequate capacity to service the revised 3-tower design. An updated analysis and servicing design will be provided as part of the Site Plan Control application to the City of Ottawa.

### Storm Drainage and Stormwater Management

The revised 3-tower storm drainage and stormwater management (SWM) design will generally maintain consistency with the previous 2-tower design, as the City of Ottawa has confirmed that the SWM quantity and quality control criteria will remain the same.

The post-development conditions will include uncontrolled direct runoff and controlled site flows. Storm flows from the majority of the site (i.e. tower roofs and outdoor amenity space above the underground parking structure) will be directed to internal SWM storage tanks and controlled (pumped) prior to being discharged to the municipal storm sewers in Scott Street. Two separate storm services will be required to service Building 1 (on its own) and Buildings 2 & 3 (combined) due to internal mechanical constraints and the phased approach to the development. Due to existing



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elevations, storm drainage from a small low-lying portion of the site will be sent directly to the 750mm dia. storm sewer in Athlone Avenue. This will ensure that existing drainage patterns and major overland flow paths are generally maintained.

The subject site is located within the jurisdiction of the Rideau Valley Conservation Authority. Based on feedback previously received from the RVCA, landscape areas and roof tops are considered clean for the purpose of protecting water quality for aquatic habitat. As parking for the revised three-tower development will be provided underground, and the distance to the stormwater outlet is >2km downstream, on-site stormwater quality control will not be required.

A complete updated SWM analysis of the development will be included as part of the Site Plan Control application to the City of Ottawa.

Please contact the undersigned should you have any questions or concerns.

**NOVATECH**


François Thauvette, P. Eng.
Senior Project Manager | Land Development

**Attachments:**

- Sanitary Flows Calculation Sheets (3-Tower Design) dated January 15, 2026
- E-mail Correspondence from the City of Ottawa dated January 19, 2026
- Domestic Water Demands Calculation Sheets (3-Tower Design) dated January 15, 2026
- FUS Fire Flow Calculation Sheets (3-Tower Design) dated January 15, 2026



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# 2026 SCOTT STREET
# POST-DEVELOPMENT SANITARY FLOWS - SUMMARY

| Residential and Commercial Uses | Peak Flows (L/s) |
|---|---|
| Building 1 | 5.16 |
| **Subtotal - Building 1 Outlet** | **5.16** |
| Building 2 | 6.68 |
| Building 3 | 3.57 |
| **Subtotal - Building 2 Outlet** | **10.25** |
| **Total Peak Sanitary Flow** | **15.41** |

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# 2026 SCOTT STREET - BUILDING 1
# POST-DEVELOPMENT SANITARY FLOWS

| **Residential Flows** | **Post-Development** | |
|---|---|---|
| Number of Studio / 1-Bedroom Units | 195 | |
| Persons per Studio / 1-Bedroom Unit | 1.4 | |
| Number of 2-Bedroom Units | 90 | |
| Persons per 2-Bedroom Unit | 2.1 | |
| Total Number of Units | 285 | |
| Design Population | 462 | |
| Average Daily Flow (280L/c/day) | 1.50 | |
| Peak Factor (Harmon Formula) | 3.39 | |
| **Peak Residential Flow** | **5.08** | **L/s** |
| | | |
| **Commercial Flows** | | |
| Ground Floor Area | 175 | $m^2$ |
| Average Commercial Daily Demand | 2.8 | $L/m^2/day$ |
| Peaking Factor (<20% Commercial Contribution) | 1.0 | |
| **Peak Commercial Flows** | **0.01** | **L/s** |
| | | |
| **Extraneous Flow** | | |
| Tower Site Area | 0.214 | ha |
| Infiltration Allowance | 0.33 | L/s/ha |
| **Peak Extraneous Flow** | **0.07** | **L/s** |
| | | |
| **Total Peak Sanitary Flow** | **5.16** | **L/s** |

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# 2026 SCOTT STREET - BUILDING 2
# POST-DEVELOPMENT SANITARY FLOWS

| **Residential Flows** | **Post-Development** | |
|---|---|---|
| Number of Studio / 1-Bedroom Units | 265 | |
| Persons per Studio / 1-Bedroom Unit | 1.4 | |
| Number of 2-Bedroom Units | 113 | |
| Persons per 2-Bedroom Unit | 2.1 | |
| Total Number of Units | 378 | |
| Design Population | 609 | |
| Average Daily Flow (280L/c/day) | 1.97 | |
| Peak Factor (Harmon Formula) | 3.34 | |
| **Peak Residential Flow** | **6.60** | **L/s** |
| | | |
| **Extraneous Flow** | | |
| Tower Site Area | 0.252 | ha |
| Infiltration Allowance | 0.33 | L/s/ha |
| **Peak Extraneous Flow** | **0.08** | **L/s** |
| | | |
| **Total Peak Sanitary Flow** | **6.68** | **L/s** |

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# 2026 SCOTT STREET - BUILDING 3
# POST-DEVELOPMENT SANITARY FLOWS

| **Residential Flows** | **Post-Development** | |
|---|---|---|
| Number of Studio / 1-Bedroom Units | 136 | |
| Persons per Studio / 1-Bedroom Unit | 1.4 | |
| Number of 2-Bedroom Units | 58 | |
| Persons per 2-Bedroom Unit | 2.1 | |
| Total Number of Units | 194 | |
| Design Population | 313 | |
| Average Daily Flow (280L/c/day) | 1.01 | |
| Peak Factor (Harmon Formula) | 3.46 | |
| **Peak Residential Flow** | **3.51** | **L/s** |
| | | |
| **Extraneous Flow** | | |
| Tower Site Area | 0.194 | ha |
| Infiltration Allowance | 0.33 | L/s/ha |
| **Peak Extraneous Flow** | **0.06** | **L/s** |
| | | |
| **Total Peak Sanitary Flow** | **3.57** | **L/s** |

**Kynan Dsa**

**From:** Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>
**Sent:** Monday, January 19, 2026 7:51 AM
**To:** Francois Thauvette
**Cc:** Wu, John; Kynan Dsa
**Subject:** RE: 2026 Scott Street - D07-12-23-0019 - Anticipated Peak Sanitary Flows (121302)

Hi Francois,

No concerns with the proposed sanitary peak flow. Thank you.

Best Regards,

**Mohammed Fawzi, P.Eng.**
Senior Project Manager (A), Infrastructure Projects
Development Review – West Branch
Planning, Development and Building Services Department (PDBS)| Direction générale des services de la planification, de l'aménagement et du bâtiment (DGSPAB)
City of Ottawa | Ville d'Ottawa
110 Laurier Avenue West | 110 Avenue Laurier Ouest
Ottawa, ON K1P 1J1
613.580.2424 ext./poste 70120, Mohammed.Fawzi@ottawa.ca



**From:** Fawzi, Mohammed
**Sent:** January 16, 2026 8:33 AM
**To:** Francois Thauvette <f.thauvette@novatech-eng.com>
**Cc:** Wu, John <John.Wu@ottawa.ca>; Kynan Dsa <k.dsa@novatech-eng.com>
**Subject:** RE: 2026 Scott Street - D07-12-23-0019 - Anticipated Peak Sanitary Flows (121302)

Hi Francois,

This email is to confirm that your request has been received and forwarded to our Water Resources Group for capacity review.

Results will be shared as soon as they are received.

Best Regards,

**Mohammed Fawzi, P.Eng.**
Senior Project Manager (A), Infrastructure Projects
Development Review – West Branch

Planning, Development and Building Services Department (PDBS)| Direction générale des services de la planification, de l'aménagement et du bâtiment (DGSPAB)
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Ottawa, ON K1P 1J1
613.580.2424 ext./poste 70120, Mohammed.Fawzi@ottawa.ca

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**From:** Francois Thauvette <f.thauvette@novatech-eng.com>
**Sent:** January 15, 2026 4:52 PM
**To:** Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>
**Cc:** Wu, John <John.Wu@ottawa.ca>; Kynan Dsa <k.dsa@novatech-eng.com>
**Subject:** FW: 2026 Scott Street - D07-12-23-0019 - Anticipated Peak Sanitary Flows (121302)



Hi Mohammed,

We are sending you this e-mail to provide the anticipated peak sanitary flows for the proposed **3-tower** re-development of the subject site. See e-mail below and attached calculations for details.

Regards,

**François Thauvette**, P. Eng., Sr. Project Manager | Land Development & Public-Sector Engineering
**NOVATECH**
Engineers, Planners & Landscape Architects
240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6 | T: 613.254.9643 Ext: 219 | C: 613.276.0310


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**From:** Kynan Dsa <k.dsa@novatech-eng.com>
**Sent:** Thursday, January 15, 2026 4:37 PM
**To:** Francois Thauvette <f.thauvette@novatech-eng.com>
**Subject:** RE: 2026 Scott Street - D07-12-23-0019 - Anticipated Peak Sanitary Flows (121302)

Hi François,

As requested in the latest pre-consultation notes for the project, please forward this e-mail and attached calculation sheets to the City of Ottawa for the purpose of verifying municipal sanitary sewer capacity.

The configuration of the proposed multi-tower development located at 2026 Scott Street (including other adjacent properties to be merged) has been revised based on direction from the client. The revised proposal will include **three** towers above an underground parking structure instead of the previously

proposed two-tower design. Due to internal mechanical constraints and the phased approach to the development, two separate sanitary services will be required to service Building 1 and Buildings 2 & 3 separately. This approach is similar to the previous (two-tower) servicing design for the site.

Our preference is to generally maintain the previously proposed sanitary servicing design (i.e., Building 1 serviced by the existing 375mm dia. sanitary sewer in Scott Street, Buildings 2 & 3 serviced by the existing 450mm dia. sanitary sewer in Scott Street). The anticipated peak sanitary flow for Building 1 is approximately 5.16 L/s, while the anticipated peak sanitary flow for both Buildings 2 & 3 is approximately 10.25 L/s, for a total peak sanitary flow for the site of **15.41 L/s**. Refer to the attached calculation sheets for details. The anticipated peak sanitary flows for the three-tower design represent a slight **decrease** from the previous two-tower servicing design, which had anticipated peak sanitary flows of 7.34 L/s for the East Tower and 8.36 L/s for the West Tower (**15.70 L/s** total peak sanitary flow for the site).

Thanks,

**Kynan D'sa**, B.A.Sc. (Engineering) (He/Him)
**NOVATECH**
Engineers, Planners & Landscape Architects
240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6
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# 2026 SCOTT STREET
# POST-DEVELOPMENT WATER DEMANDS
# SUMMARY

## DOMESTIC WATER DEMANDS

| Residential and Commercial Uses | Average Day Demand (L/s) | Maximum Day Demand (L/s) | Peak Hour Demand (L/s) |
|---|---|---|---|
| Building 1 | 1.5 | 3.8 | 8.3 |
| Building 2 | 2.0 | 4.9 | 10.9 |
| Building 3 | 1.0 | 2.5 | 5.6 |
| **TOTALS** | **4.5** | **11.2** | **24.7** |

# 2026 SCOTT STREET - BUILDING 1
# POST-DEVELOPMENT WATER DEMANDS

## DOMESTIC WATER DEMANDS

| Residential Water Demands | Post-Development | |
|---|---|---|
| Number of Studio / 1-Bedroom Units | 195 | |
| Persons per Studio / 1-Bedroom Unit | 1.4 | |
| Number of 2-Bedroom Units | 90 | |
| Persons per 2-Bedroom Unit | 2.1 | |
| Total Number of Units | 285 | |
| Design Population | 462 | |
| Average Daily Flow per resident | 280 | L/c/day |
| **Average Day Demand** | **1.50** | **L/s** |
| **Maximum Day Demand (2.5 x avg. day)** | **3.74** | **L/s** |
| **Peak Hour Demand (2.2 x max. day)** | **8.23** | **L/s** |
| | | |
| **Commercial Water Demands** | | |
| Ground Floor Area | 175 | $m^2$ |
| Average Commercial Daily Demand | 2.8 | $L/m^2/day$ |
| **Average Day Demand** | **0.01** | **L/s** |
| **Maximum Day Demand (1.5 x avg. day)** | **0.01** | **L/s** |
| **Peak Hour Demand (1.8 x max. day)** | **0.02** | **L/s** |
| | | |
| **TOTALS** | | |
| **Average Day Demand** | **1.5** | **L/s** |
| **Maximum Day Demand** | **3.8** | **L/s** |
| **Peak Hour Demand** | **8.3** | **L/s** |

# 2026 SCOTT STREET - BUILDING 2
# POST-DEVELOPMENT WATER DEMANDS

## DOMESTIC WATER DEMANDS

| Residential Water Demands | Post-Development | |
|---|---|---|
| Number of Studio / 1-Bedroom Units | 265 | |
| Persons per Studio / 1-Bedroom Unit | 1.4 | |
| Number of 2-Bedroom Units | 113 | |
| Persons per 2-Bedroom Unit | 2.1 | |
| Total Number of Units | 378 | |
| Design Population | 609 | |
| Average Daily Flow per resident | 280 | L/c/day |
| **Average Day Demand** | **1.97** | **L/s** |
| **Maximum Day Demand (2.5 x avg. day)** | **4.93** | **L/s** |
| **Peak Hour Demand (2.2 x max. day)** | **10.85** | **L/s** |
| | | |
| **TOTALS** | | |
| **Average Day Demand** | **2.0** | **L/s** |
| **Maximum Day Demand** | **4.9** | **L/s** |
| **Peak Hour Demand** | **10.9** | **L/s** |

# 2026 SCOTT STREET - BUILDING 3
# POST-DEVELOPMENT WATER DEMANDS

## DOMESTIC WATER DEMANDS

| Residential Water Demands | Post-Development | |
|---|---|---|
| Number of Studio / 1-Bedroom Units | 136 | |
| Persons per Studio / 1-Bedroom Unit | 1.4 | |
| Number of 2-Bedroom Units | 58 | |
| Persons per 2-Bedroom Unit | 2.1 | |
| Total Number of Units | 194 | |
| Design Population | 313 | |
| Average Daily Flow per resident | 280 | L/c/day |
| **Average Day Demand** | **1.01** | **L/s** |
| **Maximum Day Demand (2.5 x avg. day)** | **2.54** | **L/s** |
| **Peak Hour Demand (2.2 x max. day)** | **5.58** | **L/s** |
| | | |
| **TOTALS** | | |
| **Average Day Demand** | **1.0** | **L/s** |
| **Maximum Day Demand** | **2.5** | **L/s** |
| **Peak Hour Demand** | **5.6** | **L/s** |

# FUS - Fire Flow Calculations

Engineers, Planners & Landscape Architects

**Novatech Project #:** 121302
**Project Name:** 2026 Scott Street - Building 1
**Date:** 1/15/2026
**Input By:** B. Nichols
**Reviewed By:** F. Thauvette
**Drawing Reference:**

**Legend:** Input by User / No Input Required
**Reference:** Fire Underwriter's Survey Guideline (2020) Formula Method

**Building Description:** 26 Storey Tower with 6 Storey Podium
**Type II - Non-combustible construction**

| Step | | | Choose | | Value Used | Total Fire Flow (L/min) |
|---|---|---|---|---|---|---|
| **Base Fire Flow** | | | | | | |
| 1 | **Construction Material** | | | **Multiplier** | | |
| | **Coefficient related to type of construction C** | Type V - Wood frame | | 1.5 | 0.8 | |
| | | Type IV - Mass Timber | | Varies | | |
| | | Type III - Ordinary construction | | 1 | | |
| | | Type II - Non-combustible construction | Yes | 0.8 | | |
| | | Type I - Fire resistive construction (2 hrs) | | 0.6 | | |
| 2 | **Floor Area** | | | | | |
| | **A** | Podium Level Footprint ($m^2$) | 1120 | | | |
| | | Total Floors/Storeys (Podium) | 6 | | | |
| | | Tower Footprint ($m^2$) | 792 | | | |
| | | Total Floors/Storeys (Tower) | 20 | | | |
| | | Protected Openings (1 hr) | No | | | |
| | | A, Total Effective Floor Area ($m^2$) | | | **6,064** | |
| | **F** | **Base fire flow without reductions** | | | | **14,000** |
| | | $F = 220\ C\ (A)^{0.5}$ | | | | |
| **Reductions or Surcharges** | | | | | | |
| 3 | **Occupancy hazard reduction or surcharge** | | **FUS Table 3** | **Reduction/Surcharge** | | |
| | **(1)** | Non-combustible | | -25% | -15% | **11,900** |
| | | Limited combustible | Yes | -15% | | |
| | | Combustible | | 0% | | |
| | | Free burning | | 15% | | |
| | | Rapid burning | | 25% | | |
| 4 | **Sprinkler Reduction** | | **FUS Table 4** | **Reduction** | | |
| | **(2)** | Adequately Designed System (NFPA 13) | Yes | -30% | -30% | **-5,950** |
| | | Standard Water Supply | Yes | -10% | -10% | |
| | | Fully Supervised System | Yes | -10% | -10% | |
| | | | | **Cumulative Sub-Total** | **-50%** | |
| | | **Area of Sprinklered Coverage ($m^2$)** | 22,560 | 100% | | |
| | | | | **Cumulative Total** | **-50%** | |
| 5 | **Exposure Surcharge per** | | **FUS Table 6** | | **Surcharge** | |
| | **(3)** | North Side | >30m | | 0% | **2,737** |
| | | East Side | 20.1 - 30 m | | 3% | |
| | | South Side | 3.1 - 10 m | | 16% | |
| | | West Side | 20.1 - 30 m | | 4% | |
| | | | | **Cumulative Total** | **23%** | |
| **Results** | | | | | | |
| 6 | **(1) + (2) + (3)** | **Total Required Fire Flow, rounded to nearest 1000L/min** | | | **L/min** | **9,000** |
| | | (2,000 L/min < Fire Flow < 45,000 L/min) | | or | L/s | **150** |
| | | | | or | USGPM | 2,378 |

# FUS - Fire Flow Calculations

Engineers, Planners & Landscape Architects

**Novatech Project #:** 121302
**Project Name:** 2026 Scott Street - Building 2
**Date:** 1/15/2026
**Input By:** B. Nichols
**Reviewed By:** F. Thauvette
**Drawing Reference:**

**Legend:** Input by User / No Input Required
**Reference:** Fire Underwriter's Survey Guideline (2020) Formula Method

**Building Description:** 36 Storey Tower with 6 Storey Podium
**Type II - Non-combustible construction**

| Step | | | Choose | | Value Used | Total Fire Flow (L/min) |
|---|---|---|---|---|---|---|
| **Base Fire Flow** | | | | | | |
| 1 | **Construction Material** | | | **Multiplier** | | |
| | **Coefficient related to type of construction C** | Type V - Wood frame | | 1.5 | 0.8 | |
| | | Type IV - Mass Timber | | Varies | | |
| | | Type III - Ordinary construction | | 1 | | |
| | | Type II - Non-combustible construction | Yes | 0.8 | | |
| | | Type I - Fire resistive construction (2 hrs) | | 0.6 | | |
| 2 | **Floor Area** | | | | | |
| | **A** | Podium Level Footprint ($m^2$) | 1042 | | | |
| | | Total Floors/Storeys (Podium) | 6 | | | |
| | | Tower Footprint ($m^2$) | 802 | | | |
| | | Total Floors/Storeys (Tower) | 30 | | | |
| | | Protected Openings (1 hr) | No | | | |
| | | A, Total Effective Floor Area ($m^2$) | | | **5,772** | |
| | **F** | **Base fire flow without reductions** | | | | **13,000** |
| | | $F = 220\ C\ (A)^{0.5}$ | | | | |
| **Reductions or Surcharges** | | | | | | |
| 3 | **Occupancy hazard reduction or surcharge** | | **FUS Table 3** | **Reduction/Surcharge** | | |
| | **(1)** | Non-combustible | | -25% | -15% | **11,050** |
| | | Limited combustible | Yes | -15% | | |
| | | Combustible | | 0% | | |
| | | Free burning | | 15% | | |
| | | Rapid burning | | 25% | | |
| 4 | **Sprinkler Reduction** | | **FUS Table 4** | **Reduction** | | |
| | **(2)** | Adequately Designed System (NFPA 13) | Yes | -30% | -30% | **-5,525** |
| | | Standard Water Supply | Yes | -10% | -10% | |
| | | Fully Supervised System | Yes | -10% | -10% | |
| | | | | **Cumulative Sub-Total** | **-50%** | |
| | | **Area of Sprinklered Coverage ($m^2$)** | 30,312 | 100% | | |
| | | | | **Cumulative Total** | **-50%** | |
| 5 | **Exposure Surcharge per** | | **FUS Table 6** | | **Surcharge** | |
| | **(3)** | North Side | >30m | | 0% | **2,542** |
| | | East Side | 20.1 - 30 m | | 4% | |
| | | South Side | 10.1 - 20 m | | 8% | |
| | | West Side | 3.1 - 10 m | | 11% | |
| | | | | **Cumulative Total** | **23%** | |
| **Results** | | | | | | |
| 6 | **(1) + (2) + (3)** | **Total Required Fire Flow, rounded to nearest 1000L/min** | | | **L/min** | **8,000** |
| | | (2,000 L/min < Fire Flow < 45,000 L/min) | | or | L/s | **133** |
| | | | | or | USGPM | 2,114 |

# FUS - Fire Flow Calculations

Engineers, Planners & Landscape Architects

**Novatech Project #:** 121302
**Project Name:** 2026 Scott Street - Building 3
**Date:** 1/15/2026
**Input By:** B. Nichols
**Reviewed By:** F. Thauvette
**Drawing Reference:**

**Legend:** Input by User / No Input Required
**Reference:** Fire Underwriter's Survey Guideline (2020) Formula Method

**Building Description:** 18 Storey Tower with 4 Storey Podium
**Type II - Non-combustible construction**

| Step | | | Choose | | Value Used | Total Fire Flow (L/min) |
|---|---|---|---|---|---|---|
| **Base Fire Flow** | | | | | | |
| 1 | **Construction Material** | | | **Multiplier** | | |
| | **Coefficient related to type of construction C** | Type V - Wood frame | | 1.5 | 0.8 | |
| | | Type IV - Mass Timber | | Varies | | |
| | | Type III - Ordinary construction | | 1 | | |
| | | Type II - Non-combustible construction | Yes | 0.8 | | |
| | | Type I - Fire resistive construction (2 hrs) | | 0.6 | | |
| 2 | **Floor Area** | | | | | |
| | **A** | Podium Level Footprint ($m^2$) | 1110 | | | |
| | | Total Floors/Storeys (Podium) | 4 | | | |
| | | Tower Footprint ($m^2$) | 806 | | | |
| | | Total Floors/Storeys (Tower) | 14 | | | |
| | | Protected Openings (1 hr) | No | | | |
| | | A, Total Effective Floor Area ($m^2$) | | | **5,748** | |
| | **F** | **Base fire flow without reductions** | | | | **13,000** |
| | | $F = 220\ C\ (A)^{0.5}$ | | | | |
| **Reductions or Surcharges** | | | | | | |
| 3 | **Occupancy hazard reduction or surcharge** | | **FUS Table 3** | **Reduction/Surcharge** | | |
| | **(1)** | Non-combustible | | -25% | -15% | **11,050** |
| | | Limited combustible | Yes | -15% | | |
| | | Combustible | | 0% | | |
| | | Free burning | | 15% | | |
| | | Rapid burning | | 25% | | |
| 4 | **Sprinkler Reduction** | | **FUS Table 4** | **Reduction** | | |
| | **(2)** | Adequately Designed System (NFPA 13) | Yes | -30% | -30% | **-5,525** |
| | | Standard Water Supply | Yes | -10% | -10% | |
| | | Fully Supervised System | Yes | -10% | -10% | |
| | | | | **Cumulative Sub-Total** | **-50%** | |
| | | **Area of Sprinklered Coverage ($m^2$)** | 15,724 | 100% | | |
| | | | | **Cumulative Total** | **-50%** | |
| 5 | **Exposure Surcharge per** | | **FUS Table 6** | | **Surcharge** | |
| | **(3)** | North Side | 10.1 - 20 m | | 8% | **3,205** |
| | | East Side | 10.1 - 20 m | | 10% | |
| | | South Side | >30m | | 0% | |
| | | West Side | 3.1 - 10 m | | 11% | |
| | | | | **Cumulative Total** | **29%** | |
| **Results** | | | | | | |
| 6 | **(1) + (2) + (3)** | **Total Required Fire Flow, rounded to nearest 1000L/min** | | | **L/min** | **9,000** |
| | | (2,000 L/min < Fire Flow < 45,000 L/min) | | or | L/s | **150** |
| | | | | or | USGPM | 2,378 |