

1209 Michael St

Assessment of Adequacy of Public Services

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January 6, 2026

479620

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Assessment of Adequacy of Public Services

1. INTRODUCTION AND SITE DESCRIPTION

Parsons have been retained by Inside Edge Properties to conduct an Assessment on the Adequacy of Public Services in support of the Zoning Bylaw Amendment (ZBA) and Official Plan Amendment (OPA) applications. These applications pertain to the proposed development of two (2) residential towers, along with associated amenity and commercial spaces and surface and underground parking facilities, located at 1209 Michael Street N (Michael St) and 4200 Labelle Street, proposed to be rezoned as one property noted at 1209 Michael St.

The subject property consists of two lots, 1209 Michael St and 4200 Labelle St and is legally described as Part of Lots 26 and 27, Concession 2, (Ottawa Front) in the Geographic Township of Gloucester, City of Ottawa. The properties are currently designated as MC (Mixed-Use Center Zone).



Figure 1: Aerial View of Proposed Development

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The property has a frontage of approximately 55 meters along Michael St and 183 meters along Labelle St. It is bordered by commercial buildings to the north and west and commercial properties to the south. The total site area is approximately 0.54 hectares.

According to the Site Plan and Floor Plans prepared by Kasian Architecture, the proposed development will consist of two residential buildings (Tower A, 30 stories and Tower B, 28 stories) connected by a podium from levels 2 to 6, and 4 levels of underground parking. The site will have two access roads via Michael St and Labelle St. The development will include amenity space, commercial space and 603 residential units. The unit mix will include studios, 1-bedroom, 2-bedroom, and 3-bedroom apartments. For further details, refer to the Site Plan and architectural Floor Plans provided in **Appendix F**.

2. EXISTING SITE SERVICING AND DRAINAGE DESCRIPTION

2.1.1. EXISTING DRAINAGE

The existing site covers an area of approximately 0.54 hectares and currently contains a low-rise commercial building located at 1209 Michael St. The subject site primarily consists of hard-surfaced asphalt parking areas, the rooftop of the existing building, and limited grass areas.

Slopes across the combined site (4200 Labelle St and 1209 Michael St) are generally mild and relatively flat. Surface drainage on 4200 Labelle St generally flows southeast toward Labelle St, while drainage at 1209 Michael St is contained onsite and collected by catch basins, which ultimately discharge to the storm sewer on Michael St. Existing ground elevations range from approximately 70.84 m at the northeast corner of the site to 71.69 m at the eastern corner of 1209 Michael St.

Refer to **Appendix G** for the topographic survey.

2.1.2. EXISTING SERVICES

The following municipal infrastructure is located within the Michael St and Labelle St rights-of-way adjacent to the subject site: Michael St contains a 152 mm cast iron watermain, a 250 mm asbestos cement sanitary sewer, and a 450 mm concrete storm sewer, while Labelle St contains a 300 mm concrete storm sewer. Additionally, the existing building located at 1209 Michael St is serviced by a 250 mm PVC storm service, a 152 mm PVC water service, and a 150 mm PVC sanitary service, all connected to Michael St.

3. SCOPE OF WORK

The scope of work, as per applicable guidelines, includes stormwater management, water services, and sanitary services. For stormwater management, the work involves calculating allowable and post-development release rates, as well as demonstrating how target quantity objectives will be met. For water services, the scope includes estimating average and peak water supply demands, determining fire flow requirements using the Fire Underwriters Survey (FUS) method, confirming the adequacy of water supply and pressure during peak and fire flow conditions, and describing the proposed water distribution network and its connection to the existing system. For sanitary services, the work involves describing the existing sanitary sewers available for wastewater discharge, calculating peak flow rates and reviewing the impact of increased sanitary flow on downstream infrastructure.

4. REGULATORY APPROVALS

An MECP Environmental Compliance Approval Municipal/Private Sewage Works will likely be required for the proposed development. The project may also need to be registered with the Environmental Activity and Sector Registry (EASR) to permit dewatering activities during sewer installation

5. WATER SUPPLY AND FIRE PROTECTION

5.1.1. EXISTING WATER SERVICES

The subject site will be serviced by the existing water infrastructure within the City of Ottawa’s 1E water distribution network pressure zone, as identified in *Appendix A of the Infrastructure Master Plan (September 2024)*. A 152 mm watermain is currently located within Michael St, providing water supply to the existing building on site. There is no watermain fronting the property along Labelle St; however, a 203 mm watermain is located within Labelle St to the west of the Labelle St and Michael Storth intersection.

In addition, three existing public fire hydrants are located around the site along Michael St and Labelle St. These hydrants form part of the existing water infrastructure that supports fire protection for the area. For detailed fire hydrant locations, refer to **Appendix C**.

5.1.2. PROPOSED SERVICING DESIGN

The interior layout and architectural floor plans for the proposed development (Towers A & B) were reviewed to determine the total number of residential units and their breakdown. The development will include a total of **603 residential units**, consisting of 117 studio units, 350 one-bedroom units, 131 two-bedroom units, and 5 three-bedroom units.

Based on the City of Ottawa Design Guidelines for population projections, this unit mix translates to an estimated residential population of approximately **944.4 persons**.

According to Technical Bulletin ISTB-2021-03, dated August 18, 2021, the average daily water consumption rate for subdivisions with populations ranging from 501 to 3,000 persons is 280 L/capita/day.

The table below summarizes the proposed development’s population projections, as calculated using *Table 4.1 ("Per Unit Populations") from the City of Ottawa Sewer Design Guidelines (October 2012)*.

Table 1: Residential Populations

Domestic Demands			
Apartment Type	Persons per unit	Number of units	Population
Studio	1.4	117	163.8
1 Bedroom	1.4	350	490
2 Bedroom	2.1	131	275.1
3 Bedroom	3.1	5	15.5
	Total	603	944.4

Based on the architectural floor plans provided by Kasian Architecture, the total area of amenity space is 0.04ha and commercial space is 0.027ha. The water consumption rate for these spaces, as outlined in *Table 4.2 of the City of Ottawa Design Guidelines for Water Distribution*, is assumed to be 28,000 liters per hectare per day (L/ha/day). This rate is used to estimate water demand for infrastructure planning and to ensure the adequacy of the existing water distribution system to support the proposed development.

To determine the water supply required to service the development, the following formula was used:

$$Q = q * P * M$$

Where, q = the average consumption (L/cap/day), P=design population (cap), and M=Peak Factor.

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As outlined in Table 4.2, "Consumption Rates for Subdivisions of 501 to 3,000 Persons," in the *City of Ottawa Design Guidelines for Water Distribution*, the specified factors are applicable to sites with populations within this range. Since the proposed development is projected to have an approximate population of 944.4, the parameters of Table 4.2 are applicable. The following factors were used for the assessment:

Maximum Day Demand:

- Residential: 2.5 x average day (L/c/d)
- Commercial: 1.5 x average day (L/gross ha/d)

Maximum Hour Demand:

- Residential: 2.2 x max day (L/c/d)
- Commercial: 1.8 x max day (L/gross ha/d)

Using the above parameters, the combined demands for the site are the following:

Average Day Demand: 3.1 L/s

Maximum Day Demand: 7.7 L/s

Maximum Hour Demand: 16.9 L/s

Based on the maximum hour demand of 16.9 L/s, it was determined that a **150 mm** diameter water service will be required to adequately service the site. Furthermore, in accordance with the *City of Ottawa Water Distribution Systems Guidelines*, service areas with a basic day demand exceeding 50 m³/day must be connected to a minimum of two feeder mains to prevent the creation of a vulnerable service area. Since the average day demand for the site is 267.8 m³/day, the site will be serviced by a looped 150 mm diameter watermain connection, which will tie into the existing 152 mm PVC watermain located within Michael St, including a valve between the two connections. Refer to **Appendix C** for detailed water demand calculations.

5.1.3. FIRE FLOWS

The estimated fire flow for the proposed building was calculated in accordance with *ISTB-2018-02* and the Fire Underwriters Survey, *Water Supply for Public Fire Protection* (2020).

The following parameters, provided by the Architect, were used to calculate the fire flow demands:

- Type of Building Construction: Type II Non-combustible Construction
- Sprinkler System: Present, fully automatic, and supervised
- Building Content Combustibility: Limited combustible
- Interconnected Floor Spaces or Unprotected Openings: None

Based on this information, the estimated fire flow for the site is **8,000 L/min (133.3L/s)**, with a required fire flow duration of 2 hours. There are two existing fire hydrants in proximity to the proposed buildings that can provide the required fire flow of 8,000 L/min. Refer to **Appendix C**, for fire hydrant locations and detailed fire flow calculations. Table 2 below summarizes the aggregate fire flow of the contributing hydrants near the proposed development, as calculated using Table 18.5.4.3 of *ISTB-2018-02*

Table 2: Fire Hydrant Coverage

Fire Flow Demand	Fire Hydrant(s) within 75m	Fire Hydrant(s) within 150m	Available Combined Flow
8000 L/min	1	1	= 1x5700L/min+1x3800L/min = 9,500 L/min

The total available flow from the contributing hydrants is **9,500 L/min**, which exceeds the required fire flow of **8,000 L/min** and should be sufficient to provide adequate fire protection for the proposed development under test conditions. However, it should be noted that, although there are fire hydrants near the site, based on Section 4.2.2.3 of the *Water Distribution Ottawa Design Guidelines*, during periods of maximum day and fire flow demand the residual pressure at any point in the distribution system shall not be less than **140 kPa (20 psi)**. Based on boundary conditions provided by the City of Ottawa (see section 5.1.4), under maximum day demand plus fire flow, the maximum available fire flow that can be drawn from the City's municipal system at a residual pressure of 20 psi, at the proposed watermain connections along Michael St, is approximately **114–116 L/s**, which is less than the required **133.3 L/s**.

This assessment is based on preliminary building information and will be updated at the detailed design stage once the final building layout and construction type are confirmed. At that time, the required fire flow will be recalculated. If the refined fire flow is less than or equal to the City's available fire flow of approximately 114–116 L/s at 20 psi, the municipal supply alone should be sufficient. If the required fire flow remains higher than the available municipal fire flow, the shortfall can be mitigated by providing on-site fire water storage and a fire pump sized to supply the difference between the required and available flows for the required duration. A different option may be to optimize the watermain connection strategy in consultation with the City of Ottawa.

Based on the current preliminary fire flow and a required duration of **2 hours**, the deficit between the required 133.3 L/s and the City's available 114–116 L/s corresponds to an approximate fire storage volume on the order of **140–155 m³**. This storage could be provided in a dedicated underground fire water storage tank, which may be located within the underground parking garage, or adjacent to the buildings. The exact required storage volume and location will be confirmed at the detailed design stage.

A certified fire protection system specialist will be required at the building permit stage to confirm the actual fire flow demand based on the final building configuration, construction type, occupancy, and fire protection systems (e.g., sprinklers). The final fire protection design must demonstrate compliance with both the applicable fire code/fire flow standard and the City's minimum residual pressure requirement.

5.1.4. BOUNDARY CONDITIONS

The City of Ottawa was contacted to obtain boundary conditions associated with the proposed water demands. Correspondence regarding the boundary conditions is provided in **Appendix A**. Table 3 below summarizes the boundary conditions at the proposed water connection locations.

Table 3: Boundary Conditions

Design Parameters	Demand (L/s)	Boundary Conditions (1) * (mH2O/ kPa)	Boundary Conditions (2) * (mH2O/ kPa)
Average Day Demand	3.1	47.20 / 462.8	47.10 / 461.8
Peak Hour	17.0	39.00 / 382.4	38.90 / 381.4
Design Parameters	Demand (L/s)	Available Fire Flow at a Residual 20 psi (1)* (L/s)	Available Fire Flow at a Residual 20 psi (2)* (L/s)
Max Day + Fire Flow	7.7 + 133.3	116	114
* Assumed ground elevation at connection point 1 = 71.10m and connection point 2 = 71.20m			

As indicated in Table 3, pressures under average day demand and peak hour demand scenarios meet the required pressure ranges stated in Section 4.2.2 of the *Water Distribution Ottawa Design Guidelines* and Technical Bulletin ISD-2010-02. However, as noted in Section 5.1.3, to maintain the required residual pressure of 20 psi under maximum day plus fire flow conditions, the maximum available flow that can be drawn from the municipal system for fire protection at the site is

approximately 114–116 L/s. This shortfall relative to the preliminary required fire flow can be mitigated through a combination of refining the required fire flow at detailed design and, if necessary, providing on-site fire water storage and a fire pump to supplement the municipal supply. The final approach will be confirmed at the detailed design stage in consultation with the City of Ottawa.

6. SANITARY SERVICE

6.1.1. EXISTING SANITARY SERVICES

An existing 250 mm sanitary sewer is located within Michael St, it is proposed that the site will connect to this sewer. This sewer flows northward and flows ultimately discharges into the Green Creek Collector North.

6.1.2. SANITARY FLOWS

The parameters used to calculate the anticipated sanitary flows include a residential daily demand of 280 L/p/day, a residential peaking factor of 3.4 (calculated using the Harmon Equation), and a total infiltration rate of 0.33 L/s/ha. Based on these parameters, a population of 944.4, a commercial/amenity area of 0.068 ha, and a total site area of 0.54 ha, the total anticipated wastewater flow for the development is estimated to be **10.28 L/s**. Refer to **Appendix D** for detailed sanitary flow calculations.

The proposed development will connect via a single 2000 mm diameter sanitary service to the existing 250 mm diameter sanitary sewer in Michael St. A sanitary monitoring hole will be installed at the property line. Based on a high-level analysis, the proposed sanitary service will have sufficient cover and flows from the building will be able to drain by gravity to the existing sanitary sewer. The City of Ottawa has been contacted to confirm that the existing sanitary sewer can accommodate the anticipated flows. However, we have not received a response yet. Once confirmation has been provided, we will notify the reviewer and update this report.

7. STORMWATER MANAGEMENT

7.1.1. EXISTING STORMWATER INFRASTRUCTURE AND WATERSHEDS

The existing property is located within the Cyrville Drain catchment and is tributary to the Ottawa River East subwatershed. In pre-development conditions, drainage from the subject property is depicted by existing watersheds EWS-01 and EWS-02. EWS-01 (0.339 ha) is on the west portion of the site, including what is currently 1209 Michael St, where stormwater is mostly captured by onsite private catchbasins that carry flows to the existing 450 mm storm sewer in Michael St. EWS-02 (0.204 ha) is on the eastern portion of the site, where stormwater surface drains south to the Labelle St right-of-way and runoff is captured by roadway catchbasins; this area mostly comprises what is now 4200 Labelle St. Refer to plan C105 included in **Appendix H** for the Pre-Development Watershed Drawing. Table 4 below details the existing watershed information.

Table 4: Existing Watersheds

WATERSHED	C = 0.2	C = 0.90	Total Area (m ²)	Total Area (ha)	Combined C
EWS-01 to Michael St	293.4	3093.4	3386.8	0.339	0.84
EWS-02 to Labelle St	176.5	1863.9	2040.4	0.204	0.84
TOTAL	469.9	4957.3	5427.2	0.543	0.84

There is a 450 mm concrete storm sewer located within Michael St, and a 300 mm concrete storm sewer in Labelle St for the majority of the length of the site. Based on pre-consultation meeting feedback with the City of Ottawa, it was determined

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that the designated outlet for the site will be the 450 mm concrete sewer in Michael St, which is also the current connection location for the existing building at 1209 Michael St. The existing sewers onsite will be removed during the construction process and abandoned at their connection to the existing municipal pipe, in accordance with City of Ottawa requirements. Reuse of the existing connection, if considered, will be subject to condition and capacity checks at the detailed design stage.

7.1.2. STORMWATER DESIGN

Based on the pre-consultation meeting feedback with the City of Ottawa, included in **Appendix B**, the following stormwater management requirements were identified for the subject site:

- Use a calculated time of concentration (cannot be less than 10 minutes);
- Storm sewer to tie into existing 450mm concrete storm sewer;
- The quantity control criteria is 100-year post to 5-year pre;
- Flows to the storm sewer in excess of the pre-development flow for the respective design storm must be detained on site for the 1:100 year return;
- The pre-development runoff coefficient or a maximum equivalent 'C' of 0.5, whichever is less; and
- Quality control criteria: 'enhanced' target (80% TSS removal).

7.1.3. WATER QUALITY

To achieve the "enhanced" target of 80% Total Suspended Solids (TSS) removal, identified through the pre-consultation meeting feedback, the stormwater management design will include a Jellyfish Membrane Filtration System.

7.1.4. WATER QUANTITY

Under existing conditions, the site surface drains to two primary locations: the eastern portion of the site surface drains to Labelle St and the western portion of the site is captured and directed to the 450mm concrete storm sewer in Michael St. To maintain the existing drainage characteristics, the allowable release rates to Labelle St and Michael St were determined for both the 100-year post to 5-year pre storm design. These calculations were performed using the runoff equation and the Modified Rational Method. Table 5 below summarizes the allowable release rates. In post development conditions, the design will attempt to maintain as much of the area that was going to Labelle St, however due to the proposed development layout the new buildings will be extending further east into what was 4200 Labelle St and therefore those areas will be controlled and flows captured from them will be directed east to the Michael St storm sewer.

Table 5: Allowable Release Rates

	Allowable Release Rates (L/s)
Labelle 100-Year to 5Year	29.55
Michael St 100-Year to 5-Year	49.05

It is assumed that the majority of runoff from the roofs and on-site hard surfaces (including parking areas, walkways, sidewalks, and on-site drive isles) and landscaped areas around the towers, will be captured and directed to the underground parking garage and will later flow to the Michael St storm sewer. The designated parkland and landscaped area east of the building, adjacent to Labelle St, will surface drain south toward the right-of-way, where it will be captured by road surface and inlet CBs. Refer to plan C106 included in **Appendix H** for the Post-Development Watershed Drawing.

Based on a high-level concept drainage plan, Table 6 below summarizes the post-development watersheds. These watershed delineations are preliminary and based on current assumptions. A detailed grading and drainage plan will be completed at the Site Plan Control stage, at which time the post-development watersheds will be updated accordingly.

Table 6: Post Development Watersheds

WATERSHED	C = 0.20	C = 0.90	Total Area (m ²)	Total Area (ha)	Combined C
WS-01 Uncontrolled to Michael St	165.00	30.5	195.50	0.020	0.31
WS-02 Controlled to Michael St	440.30	3508.9	3949.20	0.395	0.82
WS-03 Uncontrolled to Labelle St	1273.10	9.4	1282.50	0.128	0.21
TOTAL	1878.40	3548.80	5427.2	0.543	0.66

Flows to Labelle St

In post development conditions it is assumed that the existing drainage patterns will be maintained. All areas draining toward Labelle St will surface flow uncontrolled. However, in comparison to existing, the conditions will be improved as flows from these areas were initially generated from a large, paved area, in proposed conditions the area draining to Labelle St will be reduced by 0.08ha and will be comprised of grassed and landscaped areas which will allow for more infiltration of water and less runoff. The uncontrolled watershed to Labelle St is estimated to have a release rate of 13.06 L/s at the 100-year storm. The allowable release rate, based on the pre-development 5-year storm to Labelle, is 29.55L/s. Therefore, since we are well below the allowable release rate no additional controls will be required for this portion of the site and a portion of these areas will continue to surface drain uncontrolled toward Labelle St consistent with existing conditions.

Flows to Michael St

The allowable release rate for the site towards Michael St was calculated to be 49.05L/s Under post-development conditions, the uncontrolled release rate to Michael St is estimated to be 3.00 L/s during the 100-year storm event. This rate comes from small areas that will likely not be able to be controlled through the grading design and will have to surface drain to the ROW. Therefore, the remainder of the site will have to be controlled to a release rate of 46.05L/s. To manage runoff exceeding these allowable rates, **74.63 m³** of storage will be needed. At the detailed design stage, this storage may be achieved through a combination of roof storage, using controlled roof drains, and a proposed cistern in the underground parking garage.

Table 7 below summarizes the stormwater release and storage requirements.

Table 7: Post-development Release Rates and Storage Requirements

	Allowable Release Rate (L/s)	Uncontrolled Release Rate (L/s)	Controlled Release Rate (L/s)	Required Storage (m ³)
100-Year Labelle St	29.55	13.06	0	0
100-Year Michael St	49.05	3.00	46.05	74.63

Controlled flows will be directed to an on-site storm manhole equipped with a Jellyfish Membrane Filtration System and a 375 mm diameter storm sewer outlet, which will discharge to the 450mm concrete storm sewer in Michael Storth. The Jellyfish Filter will enhance water quality by removing oil, grit, and fine particles from stormwater before discharge, helping to achieve the 80% Total Suspended Solids (TSS) removal target. For detailed stormwater calculations, including release rates, storage volumes, and storm sewer pipe sizing, refer to **Appendix E**.

A detailed grading and drainage plan will be completed at the Site Plan Control stage to reflect updated drainage areas and stormwater infrastructure based on the final design. This plan will ensure compliance with all relevant City guidelines and policies.

8. EROSION AND SEDIMENT CONTROL

During construction, erosion and sediment controls will be implemented to prevent sediment runoff from leaving the site and entering the City sewers. A sediment control fence will be installed along the entire site perimeter to intercept runoff at all potential exit points. Inlet sediment control devices will also be placed in any catch basins and/or manholes in and around the site that may be affected by construction activities. All erosion and sediment control measures will be constructed and maintained in compliance with Ontario Provincial Standard Specification (OPSS) 577.

9. CONCLUSION

The Assessment of Adequacy of Public Services report for the development at 1209 Michael St, presents the rationale and details for the servicing requirements for the subject property. In accordance with the report's objectives, the servicing requirements for the development are summarized below:

Water Service:

- The combined demands for the site are an average day demand of **3.1 L/s**, maximum day demand of **7.7 L/s** and a maximum hour demand of **16.9 L/s**.
- The new development will be serviced via two (2) 150mm diameter services connected to the existing 152mm watermain located in Michael St.
- The maximum fire flow required for the site is **8,000L/min** (133.3L/s) using the FUS method.
- There are at least two (2) existing hydrants available to service the site. These will provide a combined fire flow of 9,500L/min.
- Boundary conditions received from the City of Ottawa indicate that to maintain a residual pressure of 20psi in the City's system a maximum of approximately 114L/s can be drawn for fire protection.
- The difference relative to the preliminary required fire flow can be mitigated through a combination of refining the required fire flow at detailed design and, if necessary, providing on-site fire water storage and a fire pump to supplement the municipal supply. The final approach will be confirmed at the detailed design stage in consultation with the City of Ottawa.
- An approximate onsite fire storage volume on the order of **140–155 m³** would be required to provide the required fire flow difference.
- Pressures under average day demand and peak hour demand scenarios meet the required pressure ranges

Sanitary Service

- The total calculated wet wastewater flow from the proposed development is **10.28L/s**.
- The site will be serviced with a 200mm PVC sanitary sewer connection.
- The City has been contacted to provide confirmation that the existing 250mm sanitary sewer in Michael St can accommodate the anticipated sanitary flows of 10.28L/s. Once confirmation is received the reviewer will be notified and this report will be updated.

Stormwater Management

- The 100-year post-development flows will be controlled to the 5-year pre-development.
- To match existing drainage conditions some areas will be directed southeast to Labelle St, consistent with existing conditions and the remaining areas will capture and control flows and outlet them to the existing 450mm storm sewer located within Michael St.
- The allowable release rates at the 100 Year to 5 Year for Labelle St and Michael St will be **29.55L/s** and **49.05L/s** respectively.
- The required onsite storage at the 100 Year storm based on the allowable release rate to Michael St is **74.63m³**. The storage may be achieved through a combination of roof storage, using controlled roof drains, and a proposed cistern in the underground parking garage.

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- 80%TSS removal will be achieved through use of a Jellyfish Membrane Filtration System.

Should you have any questions or require additional clarification regarding this report, please do not hesitate to contact the undersigned.

Best regards,



TAMARA HARB, P.Eng.
Municipal Engineer
1223 Michael St, Gloucester, ON K1J 7T2, Canada
tamara.harb@parsons.com
Mobile: +1 343.998.1436

Appendix A

Correspondence

Harb, Tamara [NN-CA]

From: Charie, Kelsey <kelsey.charie@ottawa.ca>
Sent: Friday, December 19, 2025 3:27 PM
To: Harb, Tamara [NN-CA]
Cc: Hamilton, Craig; Shih, Austin [NN-CA]; alain@fotenn.com; Gillian Henderson
Subject: [EXTERNAL] RE: 479620_1209 Michael Street N_Boundary Conditions Request
Attachments: 1209 Michael Street December 2025.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hello everyone,

Please see attached and below the Water Boundary Condition Request results.

Please let me know if there are any questions.

Cheers,

Kelsey Charie

Project Manager | Gestionnaire de projet
Development Review - East Branch | Direction de l'examen des projets d'aménagement, Est
Planning, Development and Building Services Department (PDBS) | Direction générale des services de la
planification, de l'aménagement et du bâtiment (DGSPAB)
110 Laurier Avenue West | 110 avenue Laurier ouest
City of Ottawa | Ville d'Ottawa

The following are boundary conditions, HGL, for hydraulic analysis at 1209 Michael Street N (zone 1E) assumed to be dually connected to the 152 mm watermain on Michael Street N (see attached PDF for location).

Connection 1: 152 mm watermain on Michael Street N (North Connection)

Minimum HGL = 110.1 m
Maximum HGL = 118.3 m
Available fire flow at a residual 20 psi (assuming 71.1 elevation) = 116 L/s

Connection 2: 152 mm watermain on Michael Street N (South Connection)

Minimum HGL = 110.1 m
Maximum HGL = 118.3 m
Available fire flow at a residual 20 psi (assuming 71.2 elevation) = 114 L/s

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. Fire Flow analysis is a reflection of available flow in the watermain; there may be additional restrictions that occur between the watermain and the hydrant that the model cannot take into account.

Classified as City of Ottawa - Internal / Ville d'Ottawa - classé interne

From: Tamara.Harb@parsons.com <Tamara.Harb@parsons.com>

Sent: Wednesday, December 10, 2025 2:08 PM

To: Hamilton, Craig <craig.hamilton@ottawa.ca>

Cc: Gillian Henderson <henderson@fotenn.com>; Austin.Shih@parsons.com <Austin.Shih@parsons.com>; Scott Alain <alain@fotenn.com>

Subject: 479620_1209 Michael Street N_Boundary Conditions Request

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ATTENTION : Ce courriel provient d'un expéditeur externe. Ne cliquez sur aucun lien et n'ouvrez pas de pièce jointe, excepté si vous connaissez l'expéditeur.

Hello Craig,

I would like to request boundary conditions for the proposed development located at 1209 Michael Street N. We are on a tight schedule to submit this by December 19th. Hoping we're able to get the boundary conditions by this date.

The development proposes two towers (Tower A, 30 stories and Tower B, 28 stories) connected by a podium from levels 2 to 6, and 4 levels of underground parking.

- The proposed use of the buildings will be residential with amenity spaces and commercial spaces on the lower levels.
- Required Fire Flow per FUS: 133.3L/s
- Average Daily Demand: 3.1 L/s
- Maximum Daily Demand: 7.7 L/s
- Maximum Hourly Demand: 17.0 L/s

I have attached our Water demand and FUS calculations for your review.

Please see below an image with the proposed watermain tie-in locations.



Please let me know if you require any additional information.

All the best,

TAMARA HARB, P.Eng.
Municipal Engineer
1223 Michael St, Gloucester, ON K1J 7T2, Canada
tamara.harb@parsons.com
Mobile: +1 343.998.1436
[Parsons](#) / [LinkedIn](#) / [Twitter](#) / [Facebook](#) / [Instagram](#)



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Appendix B

Pre-Consultation Meeting Notes

May 15, 2025

Scott Alain
Fotenn Consultants Inc.
Via email: alain@fotenn.com

**Subject: Pre-Consultation: Meeting Feedback
Proposed Official Plan Amendment – 1209 Michael Street Application**

Please find below information regarding next steps as well as consolidated comments from the above-noted pre-consultation meeting held on May 9, 2025.

Pre-Consultation Preliminary Assessment

1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
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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. For your next submission, please submit the required Application Form, together with the necessary studies and/or plans to planningcirculations@ottawa.ca, copy (cc:) to the file lead and planning support.
2. In your subsequent pre-consultation or application submission, please ensure that all comments or issues detailed herein are addressed. A detailed cover letter stating how each issue has been addressed is requested 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 it is recommended that a subsequent pre-consultation application be submitted.
4. If the Urban Design Review Panel (UDRP) Report is listed as a required submission material in the Study and Plan Identification List, the applicant must visit the UDRP prior to formally submitting the planning application. The UDRP report is required for the application to be considered complete.

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

Comments:

1. The subject site is currently zoned MC F(2.0) H(48) and MC F(1.1) H(15)
2. Inner East Lines 1 & 3 Stations Secondary Plan,
 - a. The secondary designates the subject site as Area B: maximum height 20 storeys and minimum density 250 units per net hectare and/or 1.0 floor space index
 - b. The lands are within a district requiring a public park. The intent is to provide a larger park constituting of the broader district so Staff will be looking for opportunities for consolidations to create a larger park, where feasible for the development of the site.
 - c. The secondary plan directs sites to convert to the appropriate form of TD zoning under a rezoning application. It is likely that the TD3 zone would be required (with any necessary adjustments), aligning with the Cyrville Transit Oriented Development Plan.
3. Cyrville Transit-Oriented Development Plan Area (TOD Plan)
 - a. The site is indicated as TD2 in Figure 67 of the TOD Plan, limiting heights to a maximum of 20 storeys.
 - b. The plan anticipates the long-term development of the site and immediate area towards transit-supportive densities.

4. Staff have a strong interest in the soft landscaping and tree planting proposed throughout the site. It was noted that underground parking will exist below both towers and the podium, but trees are shown around the surface parking lot in the concept plan. Please ensure that consideration is made to provide tree planting where possible (in areas not taken up by the u/g parking) or in raised concrete planters to provide adequate soil volume.
5. Staff recognize the adjacent designations and do not have significant concerns with the applications proposed at this time, provided that the comments provided can be adequately addressed and sufficient rationale in support of the City's policies are demonstrated.
6. Strong planning rationale will be required to justify the Official Plan Amendment and Zoning By-law Amendments. Your rationale should justify how other objectives in the Official Plan are being strengthened by your proposed increase in density, above and beyond what is currently permitted. Example policies may include affordable housing, urban design, growth management and unit sizes, active transportation, environmental criteria and other development policy direction.
7. Please note that the Affordable Housing DC Rebate program is available for developments providing affordable housing.
8. Planning has requested clarity from the Zoning Interpretations Unit regarding the FSI limits and their intent to be carried forward in the Zoning Codes. I will provide a response on this inquiry once received.

Urban Design

Comments:

9. Urban Design Brief is required. Please see attached customized Terms of Reference to guide the preparation.
 - a. The Urban Design Brief should be structured by generally following the headings highlighted under Section 3 – Contents of these Terms of Reference.
 - b. Please ensure the Design Brief Addresses the following policy/guidelines:
 - i. Official Plan
 - ii. Inner East Lines 1 and 3 SP
 - iii. Cyrville and St-Laurent Transit Oriented Development Plans
 - iv. TOD Guidelines

v. High-Rise Guidelines

10. Additional drawings and studies are required as shown on the SPIL. Please follow the terms of references (Planning application submission information and materials | City of Ottawa) to prepare these drawings and studies. These include:

- a. Site Plan.
- b. Landscape Plan (conceptual)
- c. Elevations (conceptual)
- d. Conceptual Floorplans
- e. Shadow Analysis
- f. Wind Study
- g. UDRP Report

11. Urban Design Review Panel Review and Report

- a. The site is located within a Design Priority Area and is subject to review by the Urban Design Review Panel. UDRP review occurs within the preconsultation stage. To proceed with UDRP review, please contact udrp@ottawa.ca.
- b. The submission of a UDRP report is a requirement for deeming an application complete. Please follow the instructions provided in the Terms of Reference available here: [Urban Design Review Panel Report \(ottawa.ca\)](#)

Comments on Preliminary Design

12. The 750m² tower floor plates and tower separation distances are appreciated.
13. From an urban design perspective, height increase should be rationalized based on microclimate impacts to the surrounding area. A variation in building heights should be provided between the two towers.
14. The Cyrville TOD plan identifies 'Amenity space' at the corner of Labelle and Cyrville. Please ensure that microclimate impacts are mitigated on the amenity space/park and that building programming is integrated with the overall design of this area.
15. Provide a clear podium with a tower setback.

16. A 6 storey podium appears to be appropriate on Labelle. Rationalize the podium height and setbacks on Michael Street based on ROW width and the ability to landscape and plant street trees.
17. Landscape and ground floor program must complement each other. Ground floor units should be buffered with landscaping from surrounding roadways.
18. Ensure that active frontages are provided on both public roads including a high percentage of glazing, individual entrances to commercial units or residential lobbies. Active uses should be provided along the road frontages, with priority for the Labelle frontage as the main route to the station.
19. We will look to ensure that the proposed porte-cocheres are well integrated into the overall design of the building and that parking is well screened from the public realm.

Please contact Lisa Stern, Urban Designer, should you have any questions.

Engineering

Comments:

Water

20. Watermain looping is recommended for 50 or more dwellings to avoid creating a vulnerable service area. District Metering Area (DMA) Chamber(s) are required for private developments serviced by a connection 150 mm or larger or when there are two or more private connections to the public watermain. Refer to the City of Ottawa Water Distribution Guidelines.
21. Please be advised that capacity of the existing system will be determined after Water Boundary conditions are requested. Water Boundary condition requests must be submitted to the City Project Manager, Development Review by the civil design engineer or consultant prior to submission and include the following information:
 - a. Type of development;
 - b. Average daily demand: ___ l/s;
 - c. Maximum daily demand: ___ l/s;
 - d. Maximum hourly daily demand: ___ l/s;
22. The location of the service and the expected water demand of the proposed development shown on a plan, figure, or map;
 - a. Type of development;
 - b. Average daily demand: ___ l/s;
 - c. Maximum daily demand: ___ l/s;
 - d. Maximum hourly daily demand: ___ l/s;
23. Required fire flow and completed FUS Design Declaration if applicable;

24. Supporting Calculations for all demands listed above and required fire flow as per Ontario Building Code or Fire Underwriter Surveys (See technical Bulletin ISTB-2021-03;
25. Watermain system analysis demonstrating adequate pressure as per section 4.2.2 of the Water Distribution Guidelines;
26. Demonstrate adequate hydrant coverage for fire protection. Please review Technical Bulletin ISTB-2018-02, Appendix I Table 1 – maximum flow to be considered from a given hydrant;
27. Show proposed emergency route (to be satisfactory to Fire Services).
28. Water metering requirements need to be confirmed through circulation of the water metering group at the City.

Sanitary Sewers

29. Confirm available capacity to receive additional flows in the receiving sewers.
30. A monitoring maintenance hole shall be required just inside the property line for all non-residential and multi residential buildings connections from a private sewer to a public sewer. See the sewer use by-law for details.
31. Provide pre and post CCTV of the sanitary trunk sewer as per City Standard CCTV spec S.P. F-4090.
32. Provide an analysis to demonstrate that there is adequate residual capacity in the receiving and downstream wastewater system to accommodate the proposed development.
33. Please apply the wastewater design flow parameters in Technical Bulletin PIEDTB-2018-01.
34. A maintenance hole is required to be installed over the public sewer where private sewer connection to the public sewer exceeds 50% of the public sewer diameter. If a maintenance hole is proposed to be installed over existing City infrastructure, clearly indicate on the design drawings the applicable Standard City Drawing. For example, S12.1 or doghouse structure / S12.2, etc.

Stormwater Management

35. A monitoring maintenance hole shall be required just inside the property line for all non-residential and multi residential buildings connections from a private sewer to a public sewer. See the sewer use by-law for details.
36. A maintenance hole is required to be installed over the public sewer where private sewer connection to the public sewer exceeds 50% of the public sewer diameter.

37. If a maintenance hole is proposed to be installed over existing City infrastructure, clearly indicate on the design drawings the applicable Standard City Drawing. For example, S12.1 or doghouse structure / S12.2, etc.

Stormwater Quality

38. Characterize the water quality to be protected and Stormwater Contaminants (e.g., suspended solids, nutrients, bacteria, water temperature) for potential impact on the Natural Environment, and control as necessary; OR As per the MSS, watershed/subwatershed plan, similar area-wide Stormwater study, or Stormwater management plan to minimize, or where possible, prevent increases in Contaminant loads and impacts to receiving waters.
39. Provide Enhanced level of protection (80%) for suspended solids removal.
40. OGS unit shall be ISO 14034 Environmental Technology Verification (ETV) certified.

Stormwater Quantity

41. Servicing and Stormwater Management of the 100 year post to 5-year pre development levels.
42. Time of concentration (T_c) to be calculated, min $T_c = 10$ mins
43. The allowable release rate is to be computed using the lesser of $C=0.5$ or existing.

Grading and Drainage

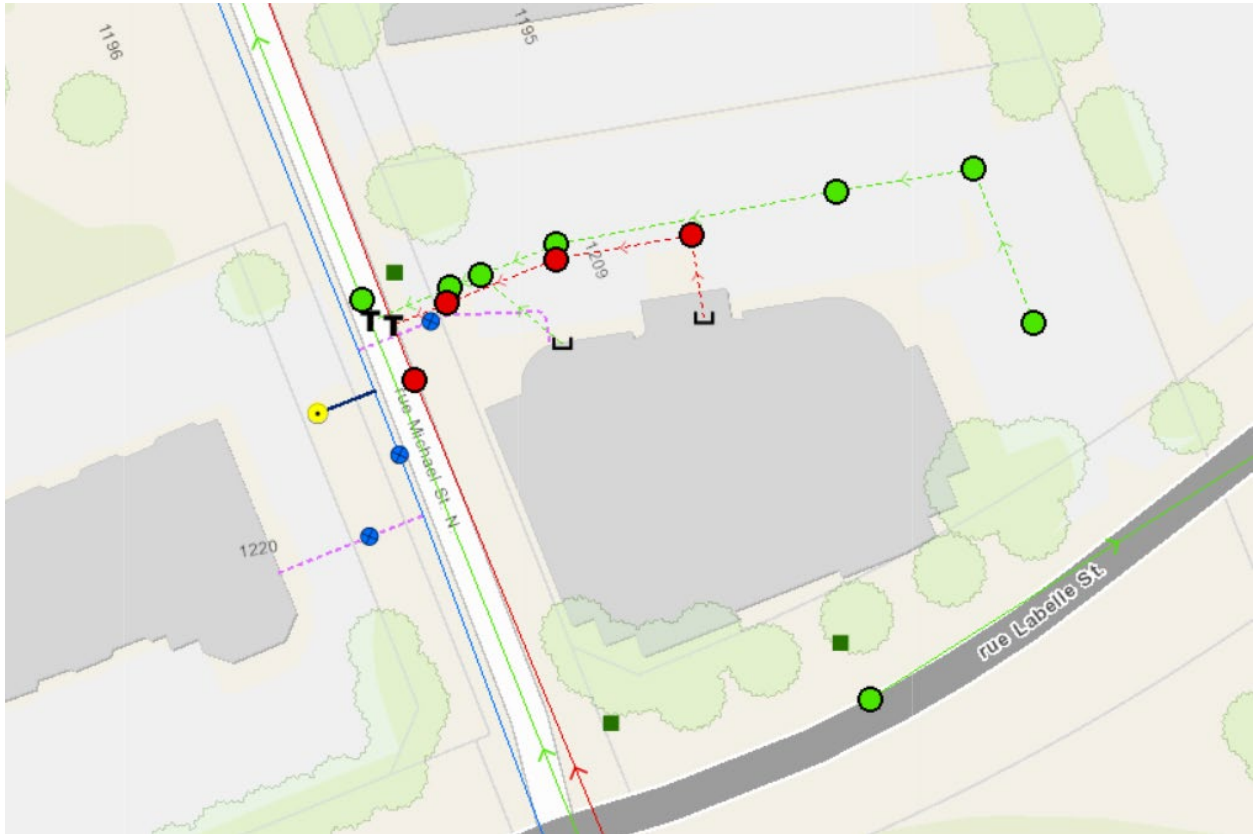
44. Active coordination and grading transition encouraged with the adjacent properties to reduce reliance on retaining walls
45. No retaining walls especially within or along public ROW - ensure grading design accounts for the transition rather than retaining walls.
46. Permissible ponding of 350mm for 100-year. No spilling to adjacent sites. At 100-year ponding elevation, you must spill to the ROW. 100-year Spill elevation must be 300mm lower than any building opening or ramp.
47. Consider Pedestrian Accessibilities at max 5%.

Geotechnical and Slope Stability

48. Sensitive Marine Clay (SMC) is widely found across Ottawa- geotechnical reports should include Atterberg Limits, consolidation testing, sensitivity values, and vane shear test. Refer to City of Ottawa Geotechnical and Slope Stability Guidelines.

Additional Engineering Notes

49. Sanitary, storm and water servicing connections are available along Michael Street, so it's suggested to service the property from the existing servicing connections.



50. No road moratorium that would impact the application has been identified.

51. Any future road widening setbacks, existing easements or proposed easements should be shown on all plans. Proposed infrastructure shall not be located within setbacks.

52. For any proposed exterior light fixtures, please provide certification from a licensed professional engineer confirming lighting has been designed only using fixtures that meet the criteria for full cut-off classification as recognized by the Illuminating Engineering Society of North America and result in minimal light spillage onto adjacent properties (maximum allowable spillage is 0.5 fc). Additionally, include in the submission the location of the fixtures, fixture type (make, model, part number and mounting height).

53. Sewer connections to be made above the springline of the sewermain as per:

- a. Std Dwg S11.1 for flexible main sewers – connections made using approved tee or wye fittings.

- b. Std Dwg S11 (For rigid main sewers) – lateral must be less than 50% the diameter of the sewermain,
 - c. Std Dwg S11.2 (for rigid main sewers using bell end insert method) – for larger diameter laterals where manufactured inserts are not available; lateral must be less than 50% the diameter of the sewermain,
54. Connections to manholes permitted when the connection is to rigid main sewers where the lateral exceeds 50% the diameter of the sewermain. – Connect obvert to obvert with the outlet pipe unless pipes are a similar size.
55. No submerged outlet connections.

Minimum Drawing and File Requirements

56. Plans are to be submitted on standard A1 size (594mm x 841mm) sheets, utilizing an appropriate Metric scale (1:200, 1:250, 1:300, 1:400, or 1:500).
57. With all submitted hard copies provide individual PDF of the DWGs and for reports please provide one PDF file of the reports. All PDF documents are to be unlocked and flattened.

Drawings, Plans and geoOttawa

58. Record drawings, utility plans and/or LIDAR information are also available for purchase from the City (Contact the City's Information Centre by email at geoinformation@ottawa.ca or by phone at (613) 580-2424 x.44455).
59. Please refer to GeoOttawa with the Water and Wastewater Infrastructure layer turned on to determine what servicing is available for this site:
<https://maps.ottawa.ca/geottawa/>.

For information on preparing required studies and plans refer to:

- a. Planning application submission information and materials | City of Ottawa;
- b. Ottawa Sewer Design Guidelines (October 2012);
- c. Ottawa Design Guidelines – Water Distribution (2010);
- d. Geotechnical Investigation and Reporting Guidelines for Development Applications in the City of Ottawa (2007);
- e. City of Ottawa Slope Stability Guidelines for Development Applications (revised 2012);
- f. City of Ottawa Environmental Noise Control Guidelines (January, 2016);
- g. City of Ottawa Park and Pathway Development Manual (2012);
- h. City of Ottawa Accessibility Design Standards (2012);

- i. Ottawa Standard Tender Documents (latest version);
- j. Please refer to other applicable Guidelines (provincial and federal);
- k. Site Alteration (By-law No. 2018-164) | City of Ottawa;
- l. Sewer Connection (By-law No. 2003-513) | City of Ottawa;
- m. Sewer Use (By-law No. 2003-514) | City of Ottawa;
- n. Building (By-law No. 2014-220) | City of Ottawa;
- o. Community Benefits Charge By-law (By-law No. 2022-307) | City of Ottawa;
- p. Delegation of Authority (By-law No. 2023-67) | City of Ottawa;
- q. Encroachments on City Highways (By-law No. 2003-446) | City of Ottawa;
- r. Fence (By-law No. 2003-462) | City of Ottawa;
- s. Fire Routes (By-law No. 2003-499) | City of Ottawa;
- t. Integrated Orléans Community Improvement Plan (By-law No. 2021-284) | City of Ottawa;
- u. Integrated Orléans Community Improvement Plan (By-law No. 2021-285) | City of Ottawa;
- v. Montreal Road Community Improvement Plan (By-law No. 2019-224) | City of Ottawa;
- w. Montreal Road Community Improvement Plan Area (By-law No. 2019-213) | City of Ottawa;
- x. Noise (By-law No. 2017-255) | City of Ottawa;
- y. Private Approach (By-law No. 2003-447) | City of Ottawa;
- z. Road Activity (By-law No. 2003-445) | City of Ottawa;
- aa. Site Plan Control (By-law No. 2014 - 256) | City of Ottawa;
- bb. Tree Protection (By-law No. 2020-340) | City of Ottawa;
- cc. Water (By-law No. 2019-74) | City of Ottawa;
- dd. Zoning (By-law No. 2008-250) | City of Ottawa;

60. Please contact Alex Polyak, Infrastructure Project Manager, for questions regarding engineering.
61. Please consider these comments in combination with comments you receive from other technical groups, agencies and the public. Contact me if it is necessary to resolve any conflicting comments.
62. "Please provide a resubmission which addresses each of the comments or issues listed above. A cover letter must also be included that states how each provided comment was addressed in the resubmission. Please co-ordinate the numbering of each resubmission comment, or issue, with the above noted comment number.
63. All addenda or revisions to any studies, or plans, must be accompanied by a *.pdf copy (either by CD or e-mail)."

Feel free to contact Alex Polyak, Project Manager, for follow-up questions.

Noise

Comments:

64. A road noise study is required.

Feel free to contact Mike Giampa, Transportation, for follow-up questions.

Transportation

Comments:

65. Right-of-way protection (Michael Street N, Cyrville).
 - a. See [Schedule C16 of the Official Plan](#).
 - b. Any requests for exceptions to ROW protection requirements or corner triangles **must** be discussed with Transportation Planning and concurrence provided by Transportation Planning management.

- c. Show the entire ROW protection on the site plan**

66. Corner Sight Triangle requirements:
 - a. Arterial/Arterial: overlapping 5m x 15m triangles
 - b. Arterial/Collector: overlapping 5m x 15m triangles
 - c. Collector/Collector: overlapping 5m x 15m triangles
 - d. Arterial/Local: 3m x 9m with the longer dimension along the arterial road

- e. Collector/Local: 3m x 9m with the longer dimension along the collector road

67. A TIA submission is required- proceed to Step 2 Scoping. After the Scoping is approved, the TIA Strategy (Step 3) **with Synchro files**, is required no later than at application.

Feel free to contact **Mike Giampa**, Transportation Project Manager, for follow-up questions.

Environment

Comments:

- 68. Extreme heat and the urban heat island effect is a concern within the city of Ottawa and the subject area. The retention of trees and the introduction of additional trees helps offset extreme temperatures by providing cooling and shade. Trees also have the added benefit of providing beautification, public health and well-being, pollution control, and other environmental and natural heritage benefits (OP Sections 2.2, 4.8, 10.3). Please provide a Landscape Plan.
 - a. The city has a long-term urban forest canopy target of forty percent (40%) or more at the neighbourhood scale to help offset the extreme temperatures and urban heat island effect.
 - b. Locally appropriate tree species and plantings are recommended.
 - c. Providing adequate setbacks and Low Impact Development Strategies, where feasible, may provide additional greenspace for tree plantings.
- 69. With the exception of trees, the subject lands and the adjacent lands within 30 m of the site do not appear to have any natural heritage features or Environmental Impact Statement (EIS) triggers. As such, an EIS is not requested. The requested Landscape Plan will help identify any endangered tree species, if any.
- 70. Due to the height of the proposed development, please consider Bird-Safe Design Guidelines early in the design process, if feasible. Typically, this is a request for any building 4-storeys in height or higher and near natural heritage features, greenspace, or parks. In this case, significant natural heritage triggers are not found in proximity to the site, however the proponent (s) may still wish to consider the benefits of incorporating the City of Ottawa Bird-Safe Design Guidelines. Every little bit helps, and by avoiding certain design elements or incorporating other elements such as decals or other economically feasible measures, it may help reduce the frequency of bird collisions.

Feel free to contact Kim MacDonald, Environmental Planner, for follow-up questions.

Forestry

Comments:

71. Planning Forestry has concerns with the ability to fit trees within the proposed site design. To provide a livable space for future residents and contribute to the urban forest canopy, suitable soil volume must be provided. While a detailed landscape plan is not required, please provide the following:

- Dimensions of the soft landscaped area available
- Estimated soil volume, based on at least 1 m depth
- The number and size class of tree that could feasibly be planted (table for reference).

Tree Type/Size	Single Tree Soil Volume (m ³)	Multiple Tree Soil Volume (m ³ /tree)
Ornamental	15	9
Columnar	15	9
Small	20	12
Medium	25	15
Large	30	18
Conifer	25	15

These minimums do not apply where sensitive marine clay soils are present. Please refer to the “Tree Planting in Sensitive Marine Clay Soils - 2017 Guidelines Background: Existing” for soil volumes related to tree planting in the right of way

72. Section 4.1.3 of the OP directs trees to be planted along streets. Confirm this is possible with the front yard setbacks proposed along with the space needed for infrastructure and services.

73. City trees should be protected through development. Removal of a city tree would need to be justified. If permitted, monetary compensation and replacement planting may be required. Monetary compensation would need to be paid prior to permit release.

74. Planning Forestry is looking for the incorporation of trees on the site to provide canopy cover, evolve the urban form, and provide equity to tree cover in a part of the City where this is currently lacking. Please refer to policies found in Section 4.8.2 of the Official Plan particularly;

- a. Preserve and provide space for mature, healthy trees on private and public property, including the provision of adequate volumes of high-quality soil as recommended by a Landscape Architect;
- b. On urban properties subject to site plan control or community planning permits, development shall create tree planting areas within the site and in the adjacent boulevard, as applicable, that meet the soil volume requirements in any applicable City standards or best management

practices or in accordance with the recommendation of a Landscape Architect;

- c. The City shall consider trees to be an important element in: Infrastructure design, especially in conjunction with Low Impact Development; Good urban design; Good park design; The design of the City's active mobility network; and The design of local connections to the City's transit network.

Feel free to contact Hayley Murray, Planning Forester, for follow-up questions.

Parkland

Comments:

75. The City's Parkland Dedication By-law 2022-280, as amended, will apply to this application. The subject property is in an evolving area for which consolidated parkland to serve community recreational needs will need to be planned for.

76. The *Inner East Lines 1 and 3 Stations Secondary Plan* identifies this property as being within a district requiring a park. A landowners cost-sharing agreement may be required to ensure consolidated parkland in the area.

77. Please note that park parcels are to meet the following standards from the City's *Park Development Manual*:
 - a. Be of a rectangular shape so as to ensure that the land can be appropriately programmed to meet the recreational needs of the community.
 - b. Designed to meet CPTED principles – safety considerations must be addressed.
 - c. The land must be unencumbered (e.g. no easements, services, limiting distance requirements), and be able to support tree planting along street frontages.
 - d. The land must be provided in a 'clean and green' state, with positive drainage into the street.

78. The best location for a park on this property is fronting on Michael Street. PFP is open to further discussion regarding how parkland could appropriately be provided. Considerations could include lot consolidation or a property owners agreement that ensures a consolidated and rectangular parkland parcel in future.

79. The area currently proposed as parkland does not provide good opportunity for recreational programming and, unless consolidated, may better serve the community as a Privately Owned Public Space (POPS). POPS spaces can serve a different but beneficial role in the community, and Staff are open to proposals that demonstrate the public realm benefit of designing this space as a POPS in conjunction with cash-in-lieu of parkland contributions.

Feel free to contact Marika Atfield, Parks Planner, for follow-up questions.

Conservation Authority

Comments:

80. Please contact the Rideau Valley Conservation Authority to confirm any comments.

Community issues

Comments:

81. N/a

Other

82. Under the Affordable Housing Community Improvement Plan, a Tax Increment Equivalent Grant (TIEG) program was created to incentivize the development of affordable rental units. It provides a yearly fixed grant for 20 years. The grant helps offset the revenue loss housing providers experience when incorporating affordable units in their developments.

- a. To be eligible for the TIEG program you must meet the following criteria:
 - i. the greater of five units OR 15 per cent of the total number of units within the development must be made affordable
 - ii. provide a minimum of 15 per cent of each unit type in the development as affordable
 - iii. enter into an agreement with the city to ensure the units maintain affordable for a minimum period of 20 years at or below the city-wide average market rent for the entire housing stock based on building form and unit type, as defined by the Canada Mortgage and Housing Corporation
 - iv. must apply after a formal Site Plan Control submission, or Building Permit submission for projects not requiring Site Plan Control, and prior to Occupancy Permit issuance

- b. Please refer to the TIEG information at [Affordable housing community improvement plan / Plan d'améliorations communautaires pour le logement abordable](#) for more details or contact the TIEG coordinator via email at affordablehousingcip@ottawa.ca.

Submission Requirements and Fees

1. Outlines the application type/subtype required and the associated fees
 - a. Additional information regarding fees related to planning applications can be found [here](#).
2. The attached **Study and Plan Identification List** outlines the information and material that has been identified 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.
3. All of the above comments or issues should be addressed to ensure the effectiveness of the application submission review.

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

Yours Truly,
Craig Hamilton

Encl. Study & Plan Identification List

Technical Agencies

c.c. Insert contacts to be cc'd

Appendix C

Water Calculations and Fire Hydrant Locations

Water Supply Calculations



Date 12/8/2025
 Project Name 1209 Michael Street Redevelopment
 Address 1209 Michael Street N, Ottawa ON
 Prepared by Tamara Harb, P.Eng

Domestic Demands - Towers A and B

Property Type	Persons per unit	Number of units	Population
Studio	1.4	117	163.8
1 Bedroom	1.4	350	490
2 Bedroom	2.1	131	275.1
3 Bedroom	3.1	5	15.5
Total		603	944.4

Average Water Consumption Rate 280 L/c/d
Average Day Demand 264432.0 L/d 3.06 L/s
 Maximum Day Factor 2.50 (City of Ottawa Design Guidelines-Table 4.2)
Maximum Daily Demand 661080.0 L/d 7.65 L/s
 Peak Hour Factor 2.20 (City of Ottawa Design Guidelines-Table 4.2)
Maximum Hour Demand 1454376.0 L/d 16.83 L/s

Commerical Demands - Towers A and B

Property Type	Unit	Rate	Units	Demand (L/d)
Amenity	28000	L/ha/d	0.040 ha	1128.4
Commercial	28000	L/ha/d	0.027 ha	767.2
Total				1895.6

Average Day Demand 1,896 L/d 0.022 L/s
 Maximum Day Factor 1.5 (City of Ottawa Design Guidelines-Table 4.2)
Maximum Daily Demand 2,843 L/d 0.033 L/s
 Peak Hour Factor 1.8 (City of Ottawa Design Guidelines-Table 4.2)
Maximum Hour Demand 5,118 L/d 0.059 L/s

Domestic plus Commerical/Amenity

Average Day Demand 3.1 L/s
Maximum Daily Demand 7.7 L/s
Maximum Hour Demand 16.9 L/s

Water Service Pipe Sizing

$$Q = VA$$

Where: V = velocity
 A = area of pipe
 Q = flow rate

Assuming a maximum velocity of 1.8m/s, the diameter of pipe is calculated as:

$$\begin{aligned} \text{Minimum pipe diameter (d)} &= (4Q/\pi V)^{1/2} \\ &= 0.109 \text{ m} \\ &= 109 \text{ mm} \\ \\ \text{Proposed pipe diameter (d)} &= 150 \text{ mm} \\ &= 6 \text{ Inches} \end{aligned}$$

Fire Flow Calculations

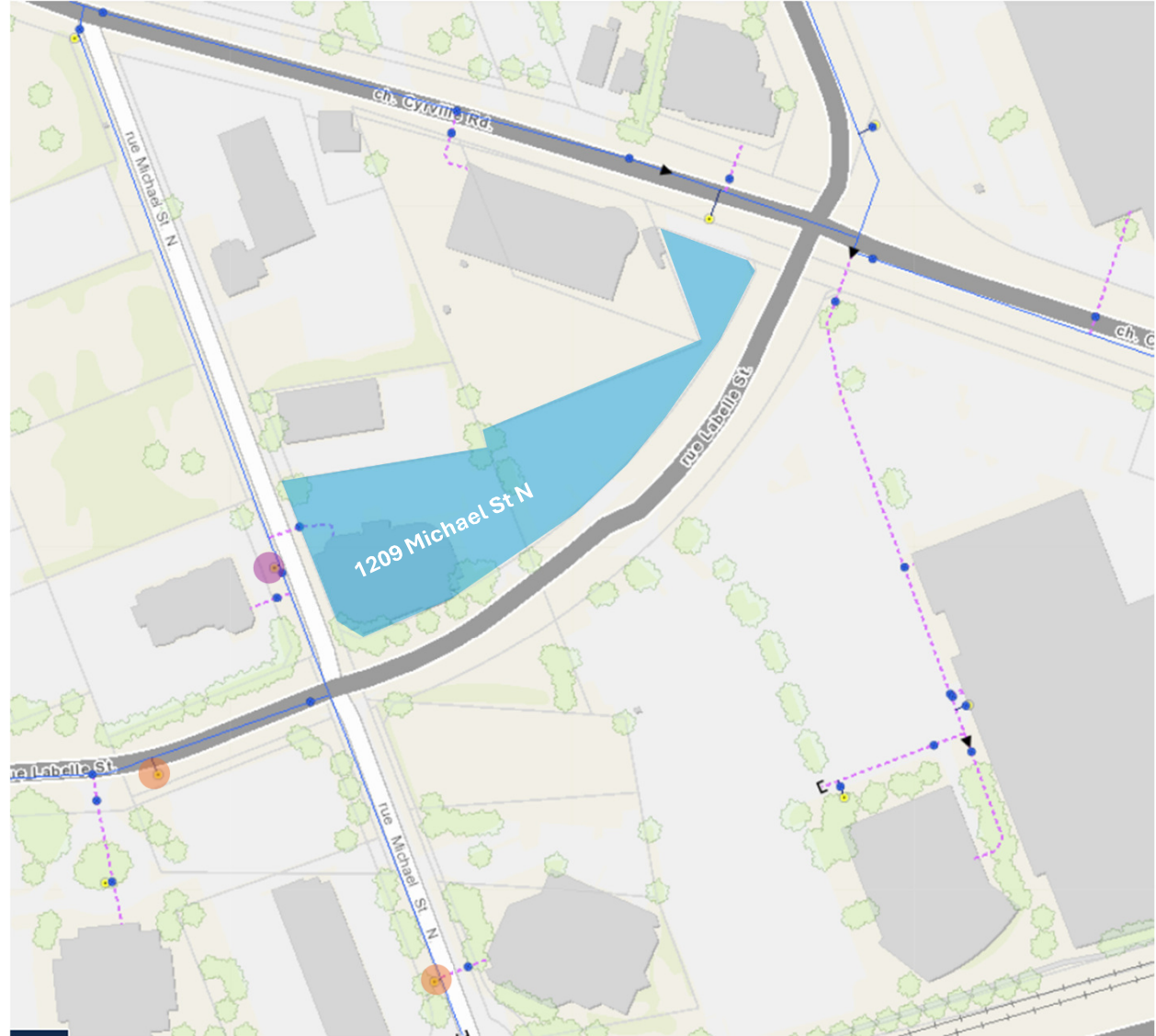
Project 479620 - 1209 Michael Street Redevelopment
 Date December 8, 2025
 Method Fire Underwriters Survey (FUS)
 Prepared by Tamara Harb, P.Eng.



Step	Task	Term	Options	Multiplier	Choose:	Value	Unit	Fire Flow	
Structural Framing Material									
1	Choose frame used for building	Coefficient C related to the type of construction	Type V - Wood Frame	1.5	Type II Non-combustible construction	0.8			
			Type IV-A Mass Timber Construction	0.8					
			Type IV-B Mass Timber Construction	0.9					
			Type IV-C Mass Timber Construction	1.0					
			Type IV-D Mass Timber Construction	1.5					
			Type III Ordinary Construction	1.0					
			Type II Non-combustible construction	0.8					
			Type I Fire resistive construction	0.6					
Floor Space Area (A)									
2			Building Footprint			4,376	m ²		
3	Obtain fire flow before reductions	Required fire flow (rounded to nearest 1,000 L/min)	$Fire\ Flow = 220 \times C \times A^{0.5}$					L/min	12,000
Reductions or surcharge due to factors affecting burning									
4	Choose combustibility of contents	Occupancy hazard reduction or surcharge	Non-combustible	-25%	Limited combustible	-15%	L/min	10,200	
			Limited combustible	-15%					
			Combustible	0%					
			Free burning	15%					
			Rapid burning	25%					
5	Choose reduction for sprinklers	Sprinkler reduction	Full automatic sprinklers	-30%	True	-30%	L/min	5,100	
			Water supply is standard for both the system and fire department hose lines	-10%	True	-10%			
			Fully supervised system	-10%	True	-10%			
6	Choose separation	Exposure distance between units	North Side	10.1 to 20m	15%	L/min	7,650		
			East Side	>30m	0%				
			West Side	20.1 to 30m	10%				
			South Side	>30m	0%				
Net required fire flow									
7	Obtain fire flow, duration, and volume					Minimum required fire flow rate (rounded to nearest 1000)	L/min	8,000	
						Minimum required fire flow rate	L/s	133.3	
						Required duration of fire flow	hr	2	

1209 Michael St N Hydrant Coverage Map

- Hydrant Within 75m
- Hydrant Within 150m



Appendix D

Wastewater Calculations

Appendix E

Stormwater Calculations



1209 Michael Street
 Project No.: 479620
 Date: 12/22/2025
 Designer: Tamara Harb, P.Eng

Pre-Development Catchments

WATERSHED	C = 0.2	C=0.7	C = 0.90	Total Area (m ²)	Total Area (ha)	Combined C
EWS-01 to Michael St N	293.4	0.0	3093.4	3386.8	0.339	0.84
EWS-02 to Labelle St	176.5	0.0	1863.9	2040.4	0.204	0.84
TOTAL	469.9	0.0	4957.3	5427.2	0.543	0.84

Post-Development Catchments

Michael Street N

WATERSHED	C = 0.20	C = 0.70	C = 0.90	Total Area (m ²)	Total Area (ha)	Combined C
WS-01 Uncontrolled	165.00	0.00	30.50	195.50	0.020	0.31
WS-02 Controlled	440.30	0.00	3508.9	3949.20	0.395	0.82
TOTAL	605.3	0.0	3539.4	4144.7	0.414	0.80

LaBelle Street

WATERSHED	C = 0.20	C = 0.70	C = 0.90	Total Area (m ²)	Total Area (ha)	Combined C
WS-03 Uncontrolled	1273.10	0.00	9.4	1282.50	0.128	0.21
TOTAL	1273.1	0.0	9.4	1282.5	0.128	0.21

	C = 0.20	C = 0.70	C = 0.90	Total Area (m ²)	Total Area (ha)	Combined C
Total Areas for Entire Site	1878.40	0.00	3548.80	5427.2	0.543	0.66



1209 Michael Street
 Project No.: 479620
 Date: 12/22/2025
 Designer: Tamara Harb, P.Eng

Stormwater Management
 Design Sheet
 100-Year Post to 5-Year Pre
 Michael Street N

Runoff Equation

$Q = 2.78CIA$ (L/s)
 C = Runoff coefficient
 $I = \text{Rainfall intensity (mm/hr)} = A / (T_d + C)^B$
 A = Area (ha)
 T_c = Time of concentration (min)

Pre-development Stormwater Management - 5 Year Storm

5 year storm

$I_5 = 998.071 / (T_d + 6.053)^{0.814}$ a = 998.071 b = 0.814 c = 6.053

C = 0.50 max of 0.5 as per City of Ottawa
 I = 104.2 mm/hr
 T_c = 10 min
 Total Area = 0.339 ha

Allowable Release Rate = **49.05** L/s

Post-development Stormwater Management - 100 Year Storm

	Total Site Area =	0.414	ha	∑R=	∑R _{2&5}
Controlled	WS-02 Controlled	0.395	ha	R=	0.82
	Total Controlled	0.395	ha	∑R=	0.82
Un-controlled	WS-01 Uncontrolled	0.020	ha	R=	0.31
	Total Un-Controlled =	0.020	ha	∑R=	0.31

Post-development Stormwater Management (Uncontrolled)

100 Year Storm Event:

$I_{100} = 1735.688 / (T_d + 6.014)^{0.820}$ a = 1735.688 b = 0.820 c = 6.014

Time (min)	Intensity (mm/hr)	Uncontrolled Runoff (L/s)	Controlled Release Rate Constant (L/s)	Total Release Rate (L/s)
10	178.6	3.00	0.00	3.00

Post-development Stormwater Management (Controlled)

100 Year Storm Event:

$I_{100} = 1735.688 / (T_d + 6.014)^{0.820}$ a = 1735.688 b = 0.820 c = 6.014

Time (min)	Intensity (mm/hr)	Storage Required		Controlled Release Rate Constant (L/s)	Uncontrolled Runoff (L/s)	Total Release Rate (L/s)
		Controlled Runoff (L/s)	Storage Volume (m ³)			
10	178.6	161.13	69.05	46.05	0.00	46.05
15	142.9	128.95	74.61	46.05	0.00	46.05
20	120.0	108.24	74.63	46.05	0.00	46.05
25	103.8	93.71	71.49	46.05	0.00	46.05
30	91.9	82.90	66.34	46.05	0.00	46.05
35	82.6	74.52	59.79	46.05	0.00	46.05
40	75.1	67.81	52.23	46.05	0.00	46.05
45	69.1	62.31	43.91	46.05	0.00	46.05
50	64.0	57.71	34.99	46.05	0.00	46.05
60	55.9	50.44	15.80	46.05	0.00	46.05
70	49.8	44.93	0.00	46.05	0.00	46.05
80	45.0	40.60	0.00	46.05	0.00	46.05
90	41.1	37.10	0.00	46.05	0.00	46.05
100	37.9	34.20	0.00	46.05	0.00	46.05
110	35.2	31.77	0.00	46.05	0.00	46.05
120	32.9	29.68	0.00	46.05	0.00	46.05

Total Storage Required = **74.63** m³



1209 Michael Street
 Project No.: 479620
 Date: 12/22/2025
 Designer: Tamara Harb, P.Eng

Stormwater Management
 Design Sheet
 100-Year Post to 5-Year Pre
 Labelle Street

Runoff Equation

$Q = 2.78CIA$ (L/s)
 C = Runoff coefficient
 $I = \text{Rainfall intensity (mm/hr)} = A / (Td + C)^B$
 A = Area (ha)
 T_c = Time of concentration (min)

Pre-development Stormwater Management - 5 Year Storm

5 year storm

$I_s = 998.071 / (Td + 6.053)^{0.814}$ a = 998.071 b = 0.814 c = 6.053

C = 0.50 max of 0.5 as per City of Ottawa
 I = 104.2 mm/hr
 T_c = 10 min
 Total Area = 0.204 ha

Allowable Release Rate= 29.55 L/s

Post-development Stormwater Management - 100 Year Storm

	Total Site Area =	0.128	ha	∑R=	∑R _{26.5}
Controlled			ha	R=	
	Total Controlled	0.000	ha	∑R=	
Un-controlled	WS-01 Uncontrolled	0.128	ha	R=	0.21
	Total Un-Controlled =	0.128	ha	∑R=	0.21

Post-development Stormwater Management (Uncontrolled)

100 Year Storm Event:

$I_{100} = 1735.688 / (Td + 6.014)^{0.820}$ a = 1735.688 b = 0.820 c = 6.014

Time (min)	Intensity (mm/hr)	Uncontrolled Runoff (L/s)	Controlled Release Rate Constant (L/s)	Total Release Rate (L/s)
10	178.6	13.06	0.00	13.06



1209 Michael Street
Project No.: 479620
Date: 12/22/2025
Designer: Tamara Harb, P.Eng

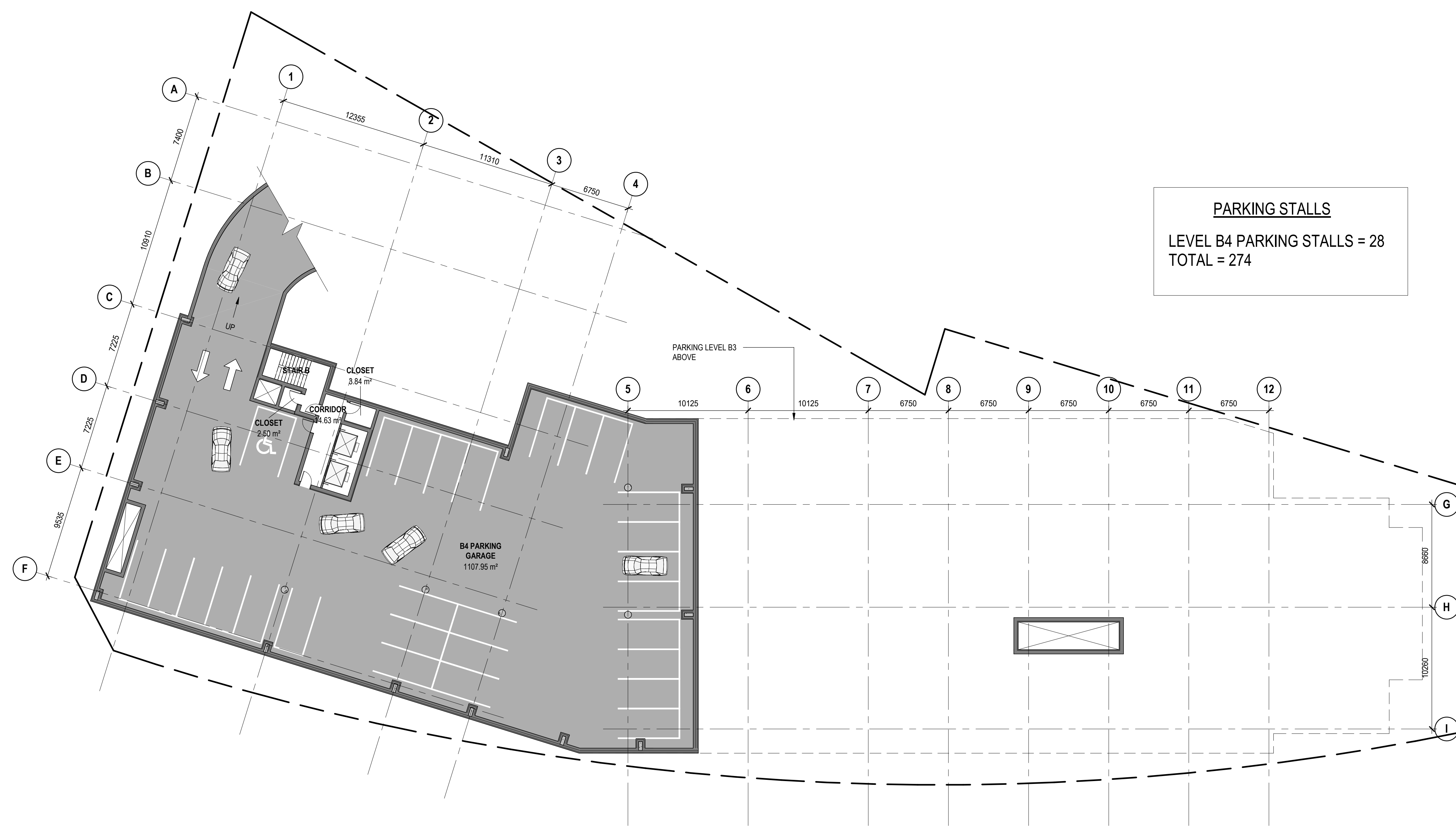
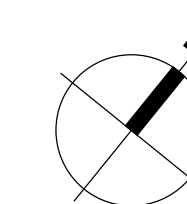
Stormwater Management
Design Sheet
100-Year Post to 5-Year Pre
Michael Street N

SUMMARY OF RELEASE RATES AND STORAGE VOLUMES

CATCHMENT AREAS	DRAINAGE AREAS (ha)	100-YEAR RELEASE RATE	100-YEAR REQUIRED STORAGE (m3)	TOTAL AVAILABLE STORAGE (m3)
WS-02 Controlled	0.395	46.05	74.63	0.00
Total Controlled	0.395	46.05	74.63	0.00
WS-01 Uncontrolled	0.020	3.00	0	0
Total Un-Controlled =	0.020	3.00	0.00	0.00
TOTAL	0.414	49.05	74.63	0.00

Appendix F

Site Plan and Architectural Floor Plans



1 UNDERGROUND PARKING B4
A-1.01 SCALE: 1:200

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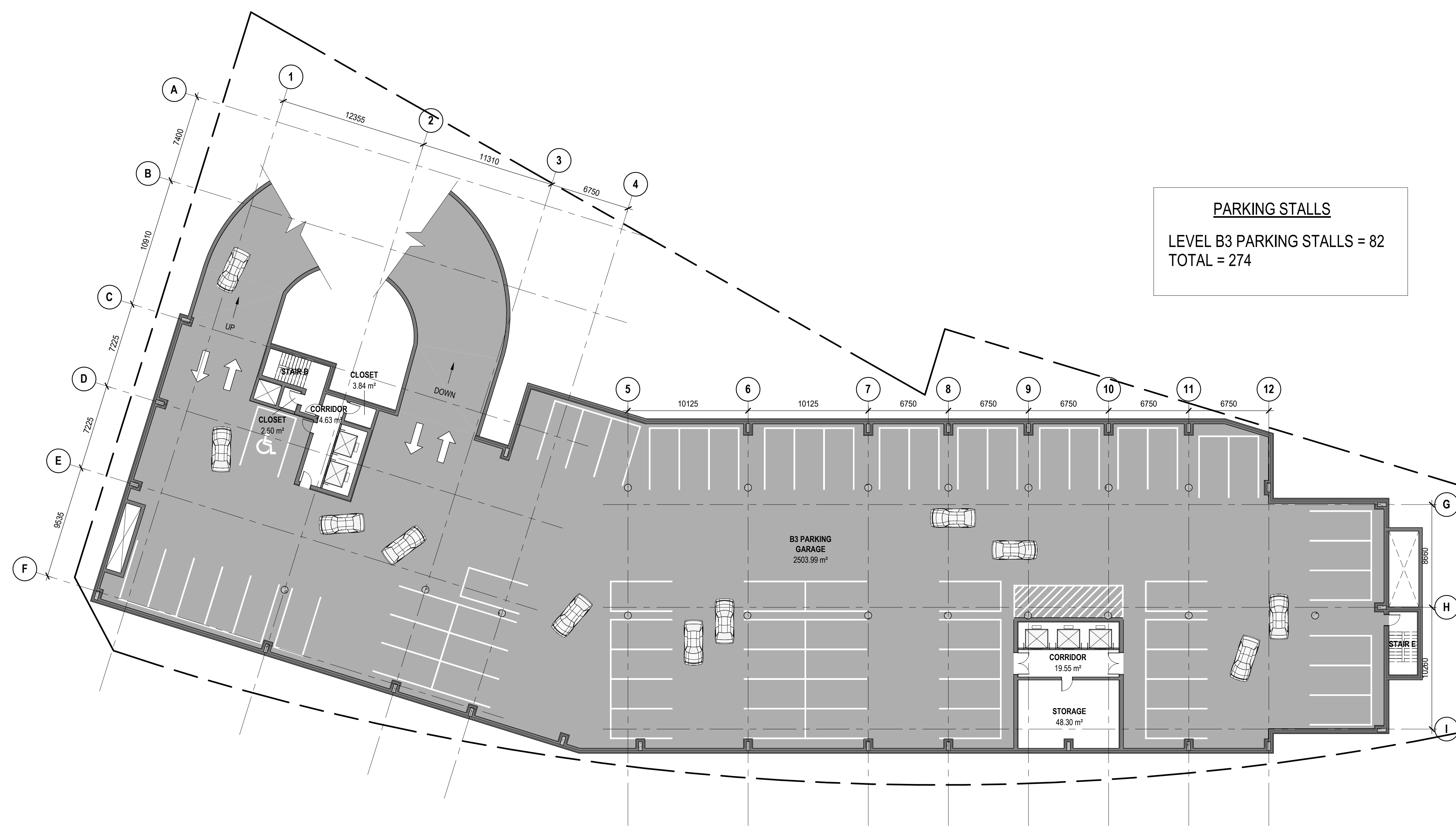
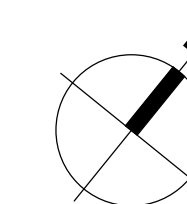
B4 UNDERGROUND PARKING PLAN

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1 UNDERGROUND PARKING B3
A-1.02 SCALE: 1:200

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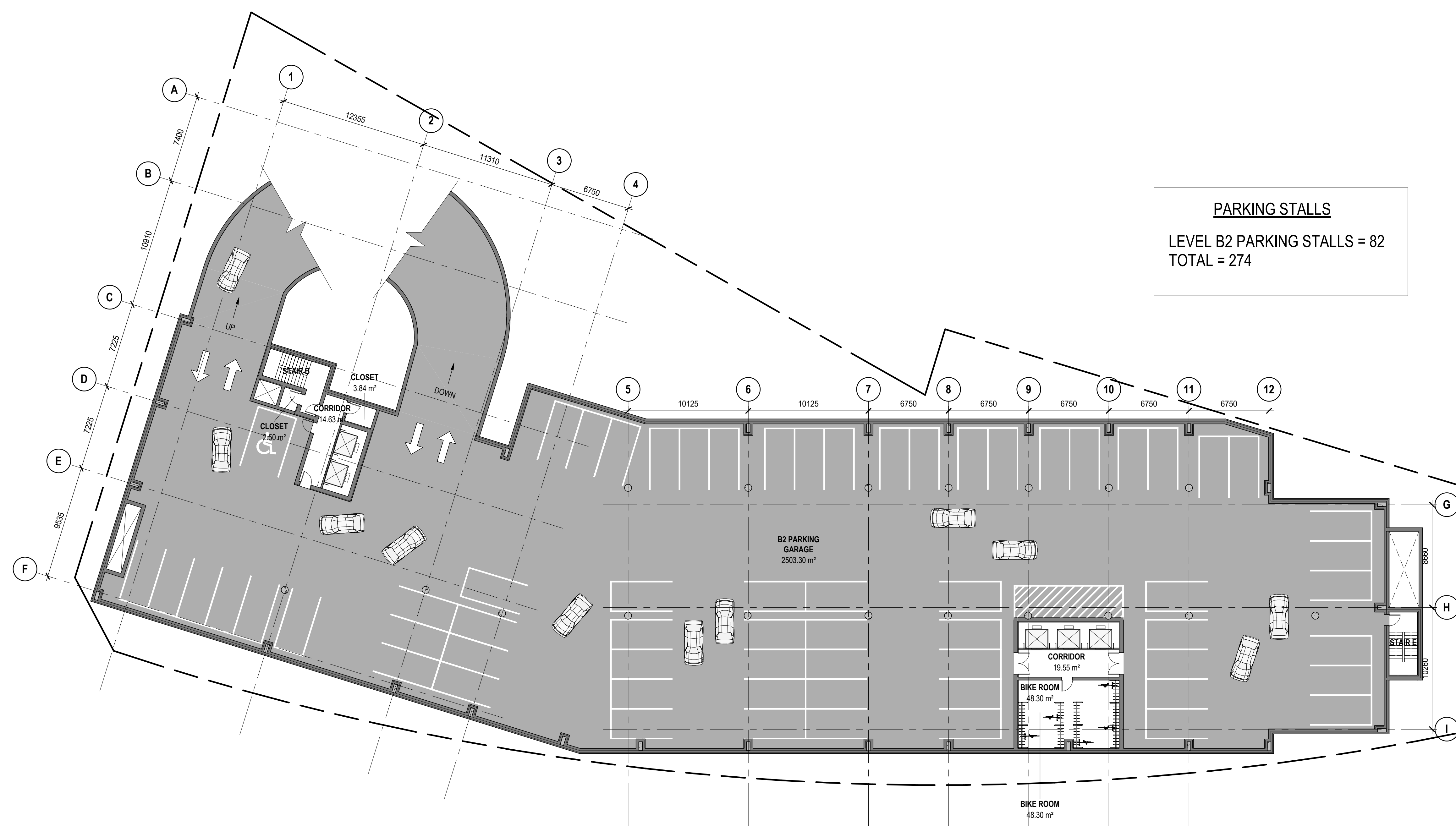
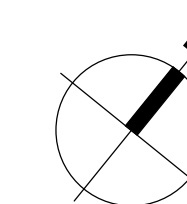
B3 UNDERGROUND PARKING PLAN

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DRAWING NO. **A-1.02** REVISION **1**



PARKING STALLS
LEVEL B2 PARKING STALLS = 82
TOTAL = 274

1 UNDERGROUND PARKING B2
A-1.03 SCALE: 1:200

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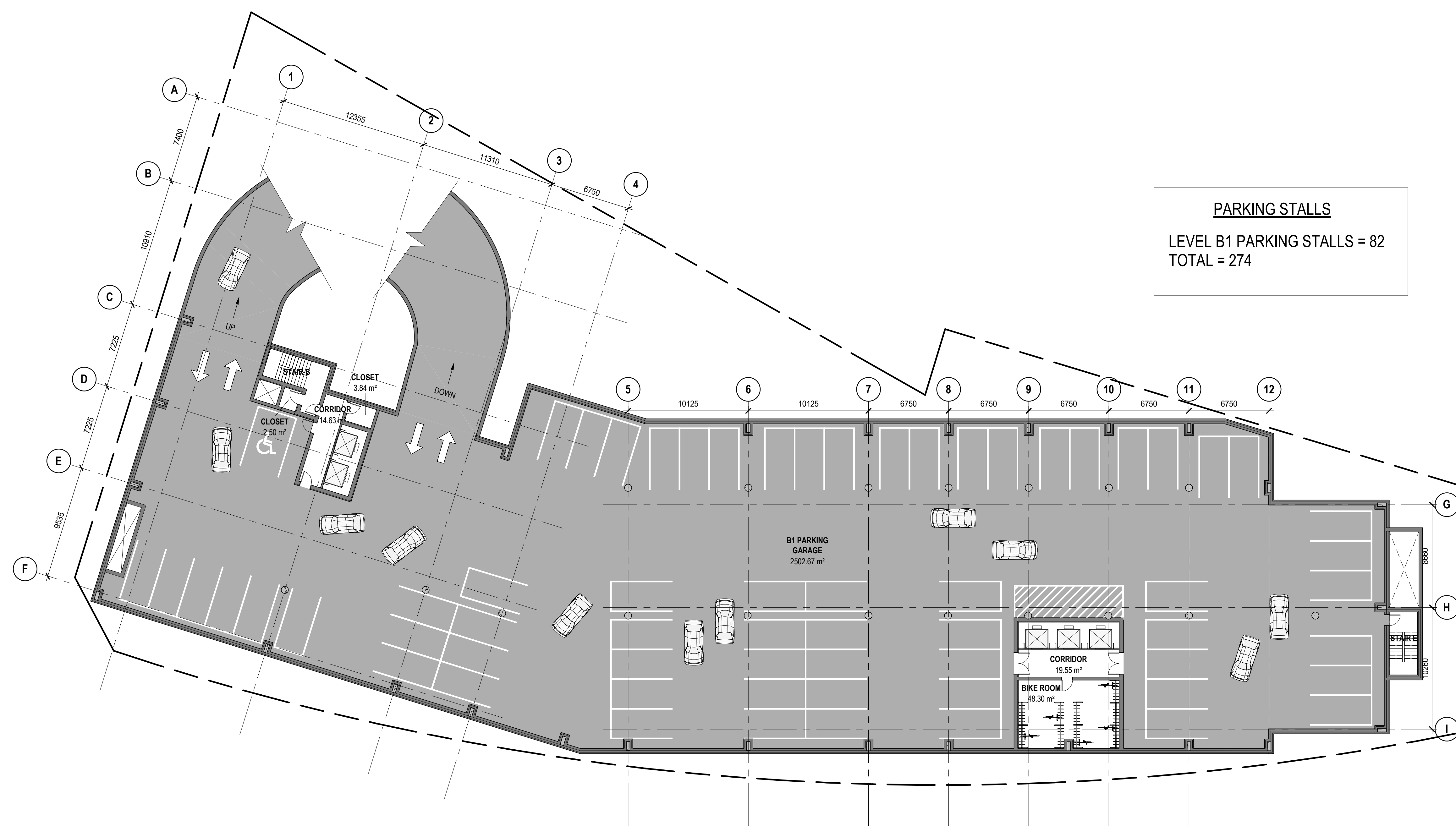
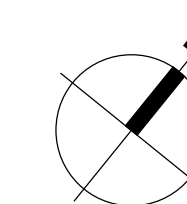
B2 UNDERGROUND PARKING PLAN

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DRAWING NO. **A-1.03** REVISION **1**



PARKING STALLS
LEVEL B1 PARKING STALLS = 82
TOTAL = 274

1 UNDERGROUND PARKING B1
A-1.04 SCALE: 1:200

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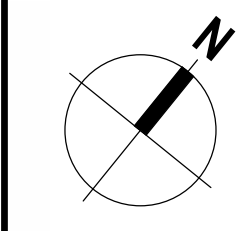
B1 UNDERGROUND PARKING PLAN

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TENANT UNIT SCHEDULE

LEVEL	UNIT TYPE	UNIT COUNT PER FLOOR	TOTAL UNIT COUNT	TOTAL AREA PER FLOOR (m ²)	TOTAL AREA (m ²)
LEVEL 29-30 (TOWER A)	3 BEDROOM	0	0	0	0
	2 BEDROOM	2	4	1,678	3,356
	1 BEDROOM	5	10	2,989	5,978
	STUDIO	3	6	1,391	2,782
TOTAL:		10	20	6,058	12,116
LEVEL 8-28 (TOWER A & B)	3 BEDROOM	0	0	0	0
	2 BEDROOM	4	84	3,167	66,507
	1 BEDROOM	12	232	7,431	156,051
	STUDIO	3	63	1,392	29,232
TOTAL:		19	389	11,990	251,790
LEVEL 7 (TOWER A & B, PODIUM)	3 BEDROOM	0	0	0	0
	2 BEDROOM	2	2	1,529	1,529
	1 BEDROOM	14	14	8,804	8,804
	STUDIO	3	3	1,370	1,370
TOTAL:		19	19	11,703	11,703
LEVEL 3-6 (PODIUM)	3 BEDROOM	1	5	991	4,955
	2 BEDROOM	8	40	6,864	34,320
	1 BEDROOM	14	70	8,418	42,090
	STUDIO	9	45	4,375	21,875
TOTAL:		32	160	20,648	103,240
LEVEL 1 (PODIUM)	3 BEDROOM	0	0	0	0
	2 BEDROOM	1	1	866	866
	1 BEDROOM	4	4	2,732	2,732
	STUDIO	0	0	0	0
TOTAL:		5	5	3,598	3,598
GRAND TOTAL:			603	3,598	382,447



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LEVEL 1 FLOOR PLAN

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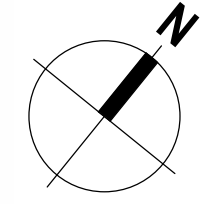
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A-1.05

1

1 LEVEL 1 FLOOR PLAN
A-1.05 SCALE: 1:200



TENANT UNIT SCHEDULE

LEVEL	UNIT TYPE	UNIT COUNT PER FLOOR	TOTAL UNIT COUNT	TOTAL AREA PER FLOOR (m ²)	TOTAL AREA (m ²)
LEVEL 29-30 (TOWER A)	3 BEDROOM	0	0	0	0
	2 BEDROOM	2	4	1,678	3,356
	1 BEDROOM	5	10	2,989	5,978
	STUDIO	3	6	1,391	2,782
TOTAL:		10	20	6,058	12,116
LEVEL 8-28 (TOWER A & B)	3 BEDROOM	0	0	0	0
	2 BEDROOM	4	84	3,167	66,507
	1 BEDROOM	12	232	7,431	156,051
	STUDIO	3	63	1,292	29,232
TOTAL:		19	389	11,990	251,790
LEVEL 7 (TOWER A & B, PODIUM)	3 BEDROOM	0	0	0	0
	2 BEDROOM	2	2	1,529	1,529
	1 BEDROOM	14	14	8,804	8,804
	STUDIO	3	3	1,370	1,370
TOTAL:		19	19	11,703	11,703
LEVEL 2-6 (PODIUM)	3 BEDROOM	1	5	991	4,955
	2 BEDROOM	8	40	6,864	34,320
	1 BEDROOM	14	70	8,418	42,090
	STUDIO	9	45	4,375	21,875
TOTAL:		32	160	20,648	103,240
LEVEL 1 (PODIUM)	3 BEDROOM	0	0	0	0
	2 BEDROOM	1	1	866	866
	1 BEDROOM	4	4	2,732	2,732
	STUDIO	0	0	0	0
TOTAL:		5	5	3,598	3,598
GRAND TOTAL:			603	3,598	382,447



2 LEVEL 2-6 FLOOR PLAN (PODIUM TYPICAL)
A-1.06 SCALE: 1:200

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PROJECT

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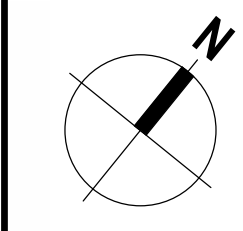
LEVEL 2-6 FLOOR PLAN (PODIUM TYPICAL)

DRAWING ISSUE

ISSUED FOR UDRP PACKAGE

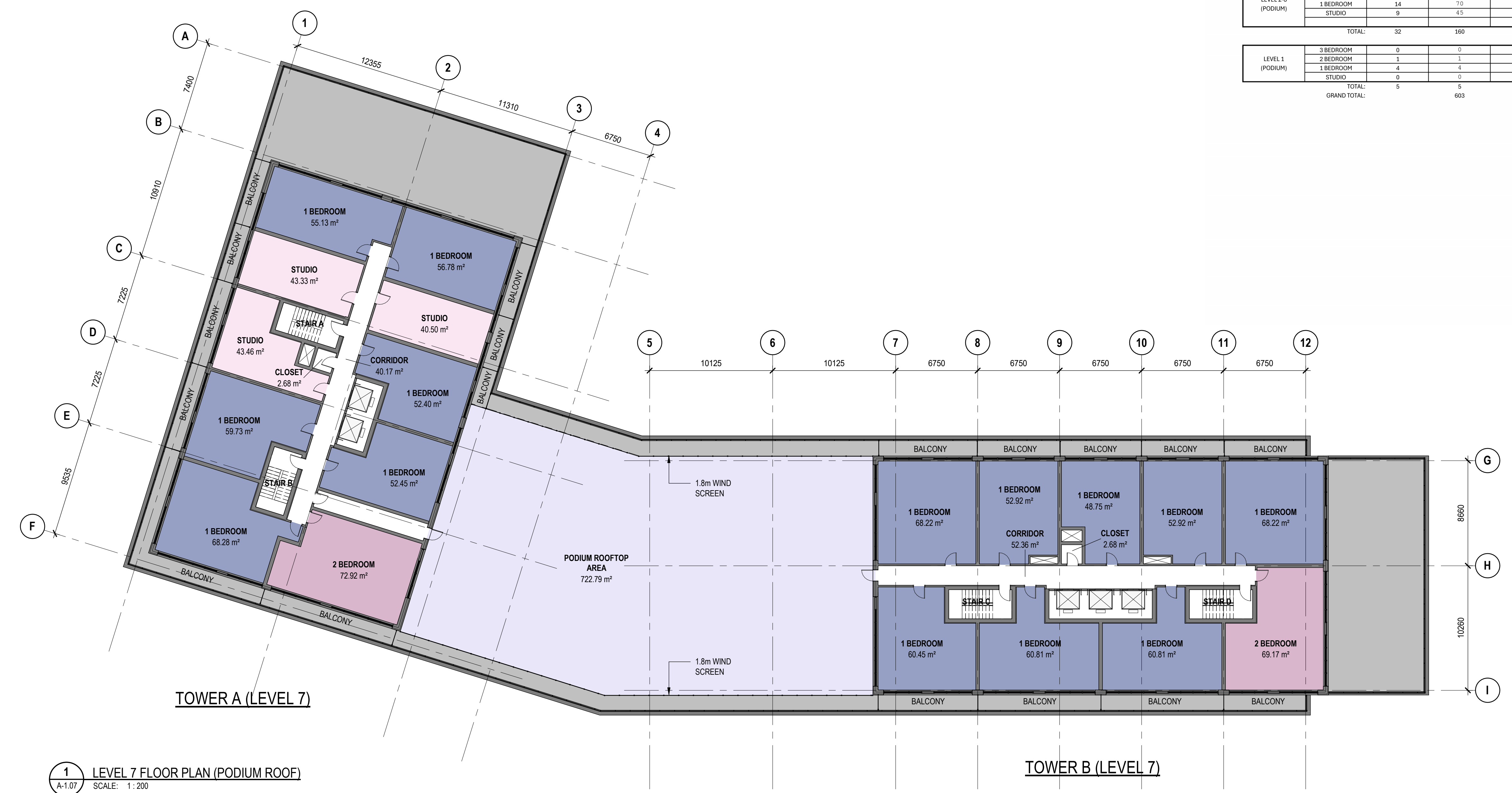
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350979-00	SCALE	1:200	REVIEWED	A.B.

DRAWING NO.	REVISION
A-1.06	1



TENANT UNIT SCHEDULE

LEVEL	UNIT TYPE	UNIT COUNT PER FLOOR	TOTAL UNIT COUNT	TOTAL AREA PER FLOOR (m ²)	TOTAL AREA (m ²)
LEVEL 29-30 (TOWER A)	3 BEDROOM	0	0	0	0
	2 BEDROOM	2	4	1,678	3,356
	1 BEDROOM	5	10	2,989	5,978
	STUDIO	3	6	1,391	2,782
	TOTAL:	10	20	6,058	12,116
LEVEL 8-28 (TOWER A & B)	3 BEDROOM	0	0	0	0
	2 BEDROOM	4	84	3,167	66,507
	1 BEDROOM	12	232	7,431	156,051
	STUDIO	3	63	1,292	29,232
	TOTAL:	19	389	11,990	251,790
LEVEL 7 (TOWER A & B, PODIUM)	3 BEDROOM	0	0	0	0
	2 BEDROOM	2	2	1,529	1,529
	1 BEDROOM	14	14	8,804	8,804
	STUDIO	3	3	1,370	1,370
	TOTAL:	19	19	11,703	11,703
LEVEL 3-6 (PODIUM)	3 BEDROOM	1	5	991	4,955
	2 BEDROOM	8	40	6,864	34,320
	1 BEDROOM	14	70	8,418	42,090
	STUDIO	9	45	4,375	21,875
	TOTAL:	32	160	20,648	103,240
LEVEL 1 (PODIUM)	3 BEDROOM	0	0	0	0
	2 BEDROOM	1	1	866	866
	1 BEDROOM	4	4	2,732	2,732
	STUDIO	0	0	0	0
	TOTAL:	5	5	3,598	3,598
GRAND TOTAL:			603	3,598	382,447



1 LEVEL 7 FLOOR PLAN (PODIUM ROOF)
SCALE: 1:200

TOWER B (LEVEL 7)

TOWER A (LEVEL 7)

REV	DATE	DESCRIPTION	BY	CHK
1	2025-11-20	ISSUED FOR UDRP PACKAGE		
REV	YYYY-MM-DD	REVISION / DRAWING ISSUE		REVIEW

CONSULTANT

PERMIT STAMP

SEAL

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PROJECT

1209 MICHAEL ST.

OTTAWA, ONTARIO

DRAWING TITLE

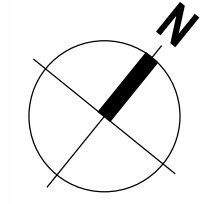
LEVEL 7 FLOOR PLAN (PODIUM ROOF)

DRAWING ISSUE

ISSUED FOR UDRP PACKAGE

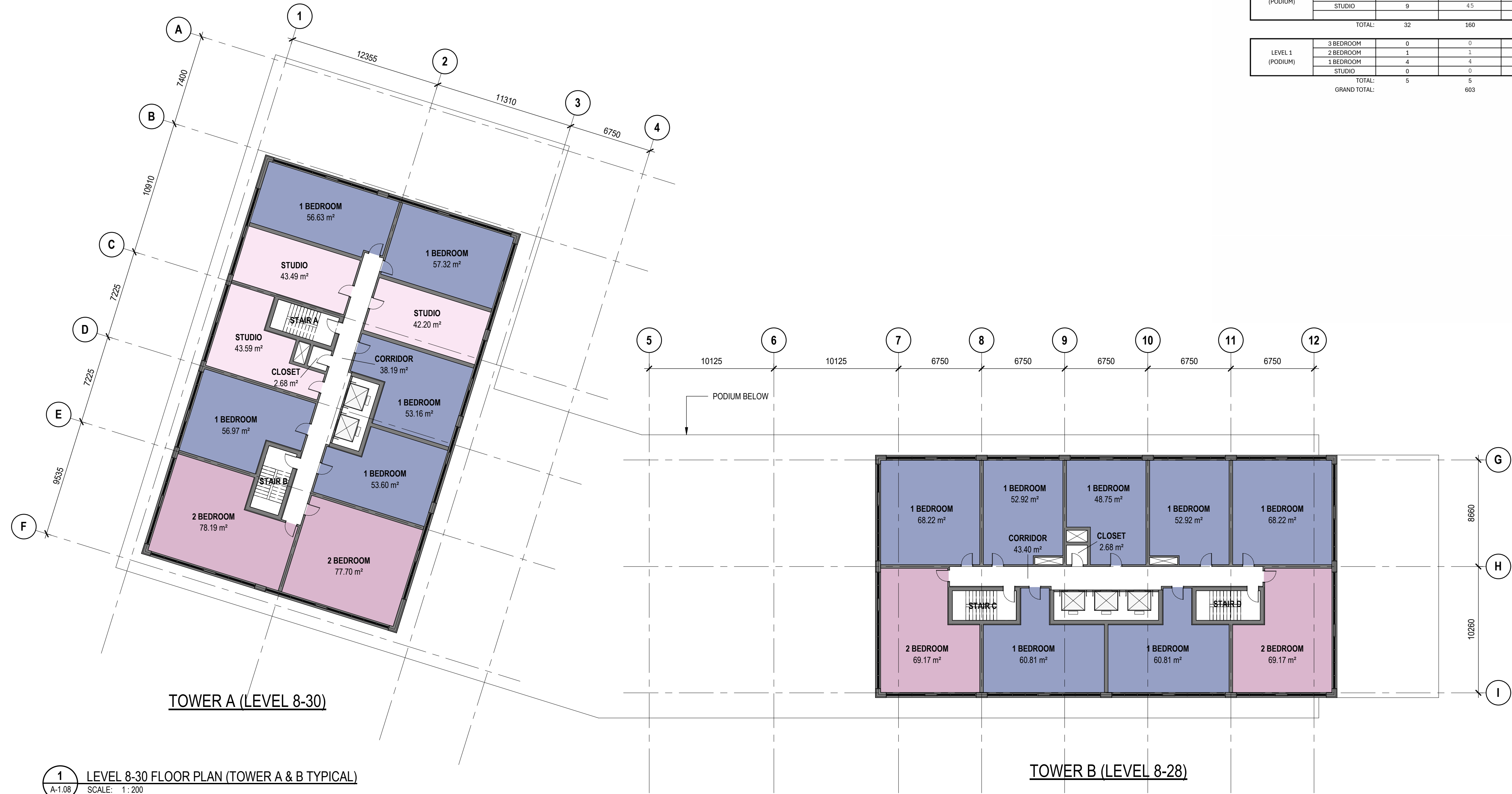
PROJECT NO.	PLOT DATE	DRAWN	W.Q.
350979-00	2025-11-20		
	SCALE	REVIEWED	A.B.
	1:200		

DRAWING NO. **A-1.07** REVISION **1**



TENANT UNIT SCHEDULE

LEVEL	UNIT TYPE	UNIT COUNT PER FLOOR	TOTAL UNIT COUNT	TOTAL AREA PER FLOOR (m ²)	TOTAL AREA (m ²)
LEVEL 29-30 (TOWER A)	3 BEDROOM	0	0	0	0
	2 BEDROOM	2	4	1,678	3,356
	1 BEDROOM	5	10	2,989	5,978
	STUDIO	3	6	1,391	2,782
TOTAL:		10	20	6,058	12,116
LEVEL 8-28 (TOWER A & B)	3 BEDROOM	0	0	0	0
	2 BEDROOM	4	84	3,167	66,507
	1 BEDROOM	12	232	7,431	156,051
	STUDIO	3	63	1,392	29,232
TOTAL:		19	389	11,990	251,790
LEVEL 7 (TOWER A & B, PODIUM)	3 BEDROOM	0	0	0	0
	2 BEDROOM	2	2	1,529	1,529
	1 BEDROOM	14	14	8,804	8,804
	STUDIO	3	3	1,370	1,370
TOTAL:		19	19	11,703	11,703
LEVEL 2-6 (PODIUM)	3 BEDROOM	1	5	991	4,955
	2 BEDROOM	8	40	6,864	34,320
	1 BEDROOM	14	70	8,418	42,090
	STUDIO	9	45	4,375	21,875
TOTAL:		32	160	20,648	103,240
LEVEL 1 (PODIUM)	3 BEDROOM	0	0	0	0
	2 BEDROOM	1	1	866	866
	1 BEDROOM	4	4	2,732	2,732
	STUDIO	0	0	0	0
TOTAL:		5	5	3,598	3,598
GRAND TOTAL:			603	3,598	382,447



1 LEVEL 8-30 FLOOR PLAN (TOWER A & B TYPICAL)
A.1.08 SCALE: 1:200

TOWER B (LEVEL 8-28)

REV	YYYY-MM-DD	REVISION / DRAWING ISSUE	REVIEW
1	2025-11-20	ISSUED FOR UDRP PACKAGE	

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PROJECT

1209 MICHAEL ST.

OTTAWA, ONTARIO

DRAWING TITLE

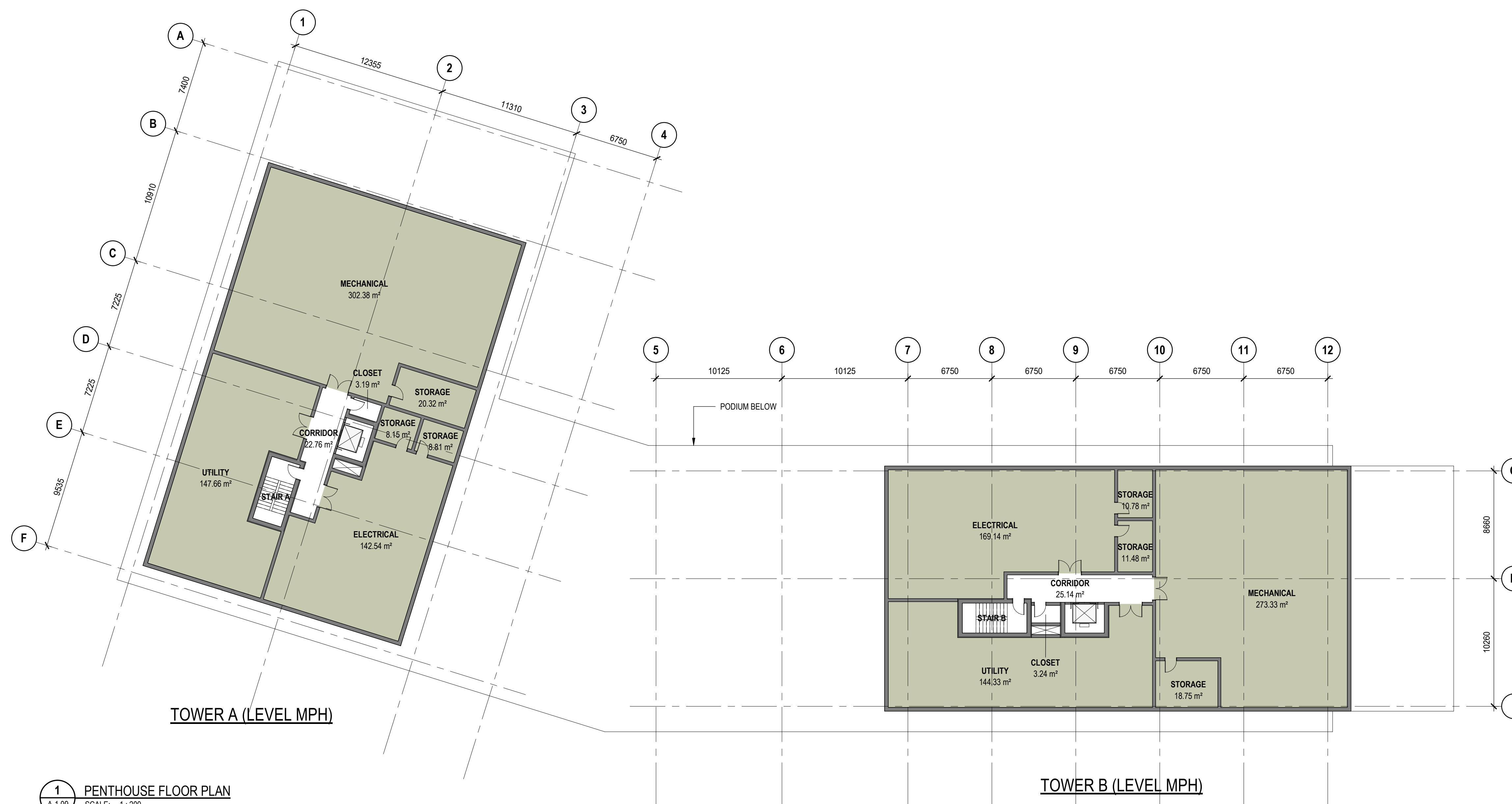
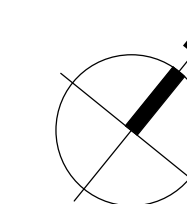
LEVEL 8-30 FLOOR PLAN (TOWER TYPICAL)

DRAWING ISSUE

ISSUED FOR UDRP PACKAGE

PROJECT NO.	PLOT DATE	DRAWN	W.Q.
350979-00	2025-11-20		
SCALE	1:200	REVIEWED	A.B.

DRAWING NO.	REVISION
A-1.08	1



1 PENTHOUSE FLOOR PLAN
A-1.09 SCALE: 1:200

1	2025-11-20	ISSUED FOR UDRP PACKAGE		
REV	YYYY-MM-DD	REVISION / DRAWING ISSUE		REVIEW

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PROJECT

1209 MICHAEL ST.

OTTAWA, ONTARIO

DRAWING TITLE

PENTHOUSE FLOOR PLAN

DRAWING ISSUE

ISSUED FOR UDRP PACKAGE

PROJECT NO.	PLOT DATE	2025-11-20	DRAWN	W.Q.
350979-00	SCALE	1:200	REVIEWED	A.B.

DRAWING NO.	REVISION
A-1.09	1

Appendix G

Topographical Survey

PART OF LOTS 26 & 27
CONCESSION 2 (OTTAWA FRONT)
GEOGRAPHIC TOWNSHIP OF GLOUCESTER
CITY OF OTTAWA

FARLEY, SMITH & DENIS SURVEYING LTD. 2025

Scale 1: 300
0 5 10 15 20 25 30 metres

Metric Note
Distances and/or coordinates on this plan are in metres and can be converted to feet by dividing by 0.3048.

Distance Note
Distances shown on this plan are ground distances and can be converted to grid distances by multiplying by the combined scale factor of 1.0000.

Bearing Note
Bearings hereon are grid bearings derived from the Can-Net Real Time Network and are referred to the Central Meridian of MTM Zone 29 (76°30' West Longitude) Nad-83 (Original).

For bearing comparisons, a rotation of 0°40'50" counter-clockwise was applied to bearings on P3.

For bearing comparisons, a rotation of 0°43'45" counter-clockwise was applied to bearings on P4 & P6.

Elevation Notes
1. Elevations shown are geodetic and are referred to Geodetic Datum CGVD-1928 :1978.

2. Elevations derived from LRT Benchmark No. 2011-090 having a published elevation of 70.742.

3. It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that its relative elevation and description agrees with the information shown on this drawing.

Utility Notes
1. This drawing cannot be accepted as acknowledging all of the utilities and it will be the responsibility of the user to contact the respective utility authorities for confirmation.

2. Only visible surface utilities were located.

3. Underground utility data derived from City of Ottawa utility sheet reference: 6530p8p, 9254p8p04, 9709plan01, 13412p8p6, 14603plan01, 15208plan01, 250659, PG02-203-B, PG02-404-A, PG03-206, VF02-A02-119-4 & VF02-A02-119-5.

4. Sanitary and storm sewer grades and inverts were compiled from: City of Ottawa Utility Sheets.

5. A field location of underground plant by the pertinent utility authority is mandatory before any work involving breaking ground, probing, excavating etc.

6. Not all overhead wires/transformers adjacent to the property have been located, the nearest overhead wire locations are shown on the plan.

Notes & Legend

- Denotes Survey Monument Planted
- Survey Monument Found
- SIB Standard Iron Bar
- SSIB Short Standard Iron Bar
- IB Iron Bar
- CP Catch Pin
- (W/T) Witness
- Meas Measured
- (P1) Registered Plan 4R-15605
- (P2) Plan 4R-16632
- (P3) Plan by (DOB) dated December 24, 2012 (Ref. S.S. Catholic Church)
- (P4) Plan 4R-17189
- (P5) Plan by (AOG) dated October 17, 2007 (Job No. 9228-08)
- (P6) CAR-25
- MH-ST Maintenance Hole (Storm)
- MH-S Maintenance Hole (Sanitary)
- MH-T Maintenance Hole (Traffic)
- ST Undergound Storm Sewer
- SS Undergound Sanitary Sewer
- W Undergound Water
- P Undergound Power
- G Undergound Gas
- B Undergound Bell
- T Undergound Traffic
- TV Undergound Cable
- OW Overhead Wires
- UP Utility Pole
- AN Anchor
- LS Light Standard
- CB Catch Basin
- CBi Catch Basin Inlet
- PH Fire Hydrant
- WV Water Valve
- GM Gas Meter
- SL Bollard
- S Sign
- Q Diameter
- BH Borehole
- CLF Chain Link Fence
- BF Board Fence
- SRW Stone Retaining Wall
- Inv. Invert
- Inv(City) Invert Compiled from City of Ottawa Utility Plans
- T/G Top of Grate
- U/Eave Underside of Eave
- TopFdn Top of Foundation
- CL Centreline
- JB Jersey Barriers
- ICV Irrigation Control Valve
- SP Stone Pillar
- +65.00 Location of Elevations
- +65.00 Top of Concrete Curb/Retaining Wall Elevation
- Property Line
- Deciduous Tree The Symbol shown denotes location and trunk diameter only. Size of its root system/overhead canopy may be smaller/larger than the symbol size depicted on this plan.
- Coniferous Tree

Site Area=5428.5 sq.m.

Surveyor's Certificate

I certify that:
1. This survey and plan are correct and in accordance with the Surveys Act, the Surveyors Act and the Regulations made under them;
2. The survey was completed on the 7th day of November, 2025.

Date Nov 13/25
Daniel Robinson
Ontario Land Surveyor

This plan of survey relates to AOLS Plan Submission Form Number V-120464

FARLEY, SMITH & DENIS SURVEYING LTD.

ONTARIO LAND SURVEYORS
CANADA LAND SURVEYORS

Unit 275, 30 COLONNADE ROAD, OTTAWA, ONTARIO K2E 7J6
TEL. (613) 727-8226 E-mail: info@fstdsurveys.ca

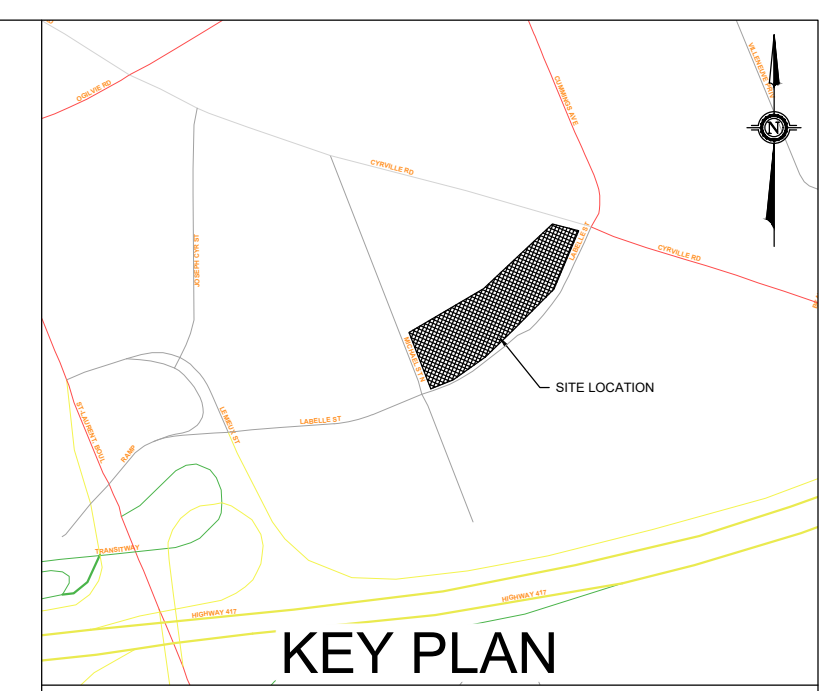
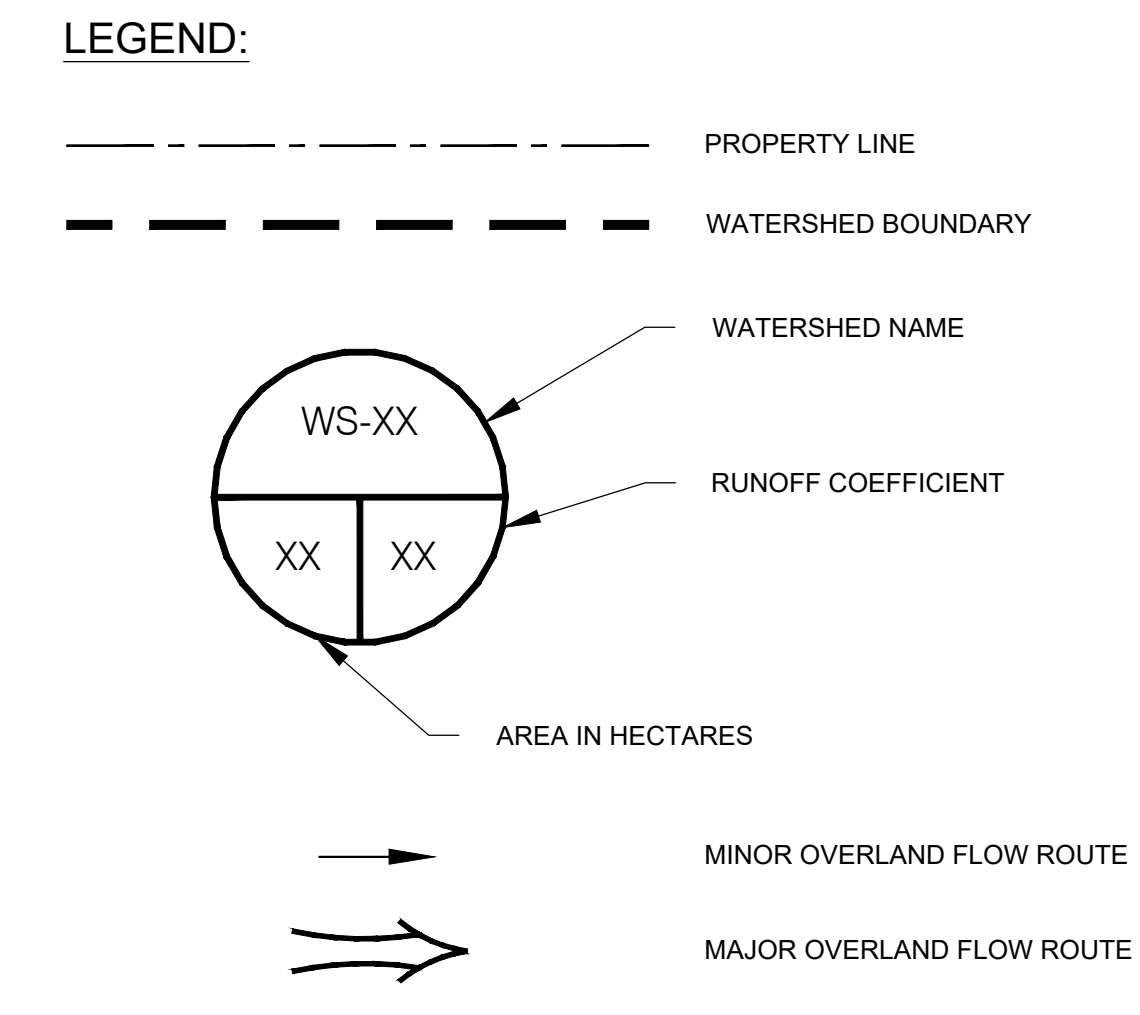
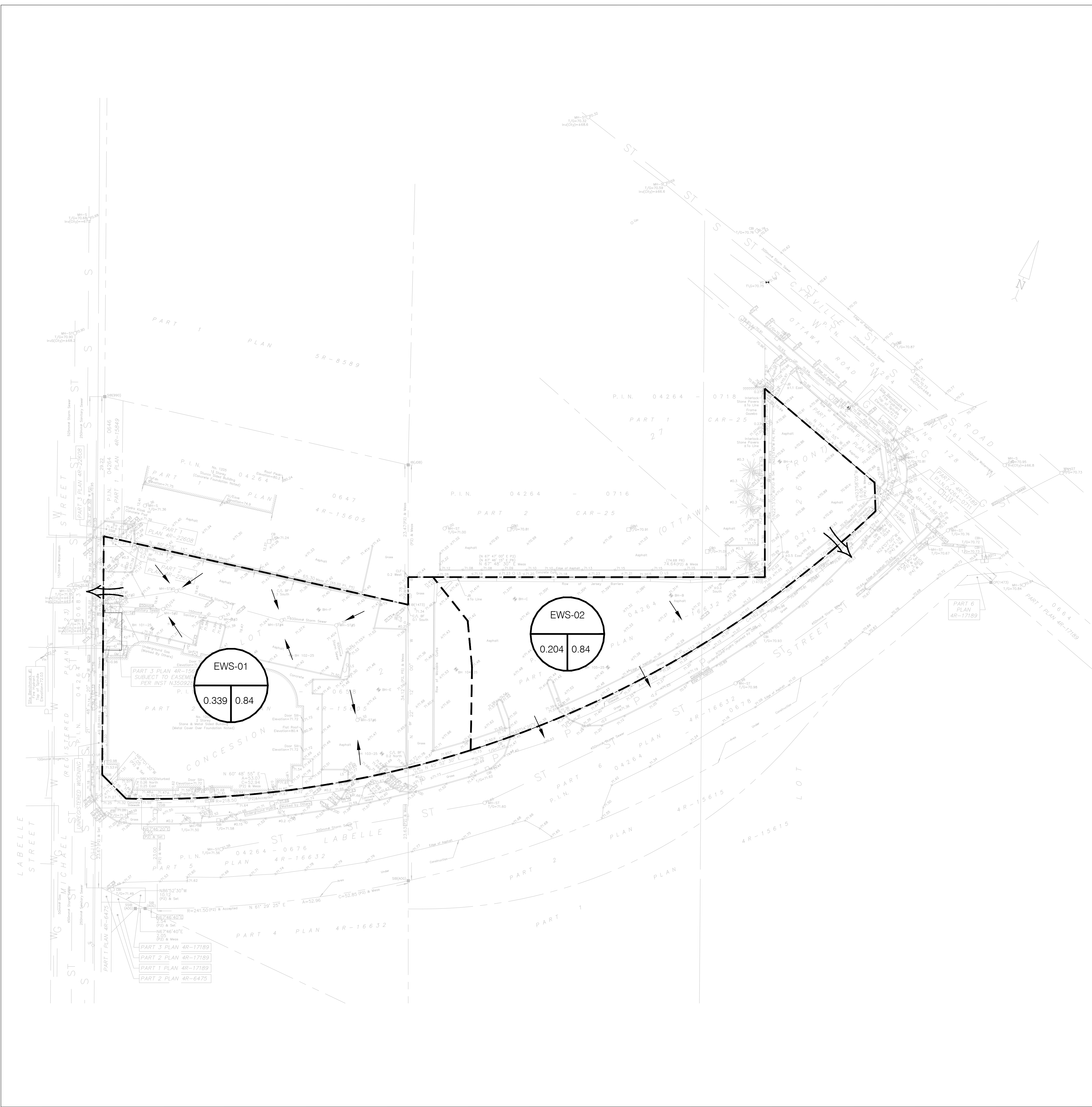
MANHOLE DATA TABLE

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MH-ST#3	T/G=71.05	Inv(City)=69.1
MH-ST#4	T/G=71.21	Inv(City)=69.3
MH-ST#5	T/G=71.35	Inv(City)=69.6
MH-ST#6	T/G=71.32	Inv(City)=69.9
MH-S#1	T/G=71.26	Inv(City)=69.4
MH-S#2	T/G=71.11	Inv(City)=69.5
MH-S#3	T/G=71.33	Inv(City)=69.5

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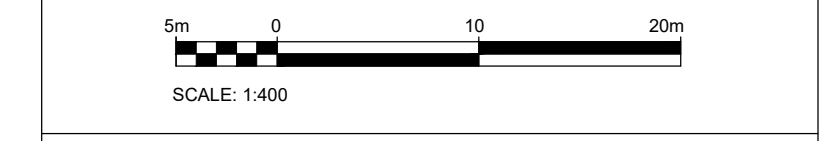
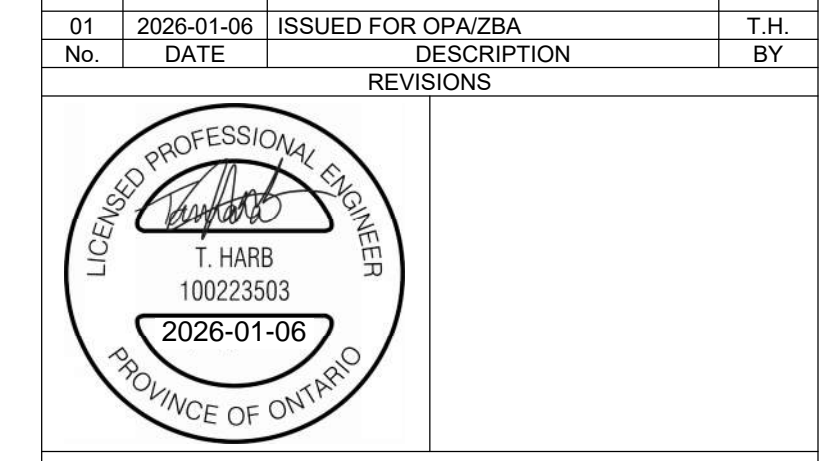
Appendix H

Pre-Development and Post-Development Watersheds



TOPOGRAPHIC INFORMATION & BENCHMARK
 TOPOGRAPHIC SURVEY COMPLETED BY FARLEY, SMITH & DENIS SURVEYING LTD. ON NOVEMBER 7th, 2025. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD-1928-1978 GEODETIC DATUM.
 ELEVATIONS DERIVED FROM LRT BENCHMARK NO. 2011-090 HAVING A PUBLISHED ELEVATION OF 70.742.

No.	DATE	DESCRIPTION	T.H.
01	2026-01-06	ISSUED FOR OPA/ZBA	T.H.



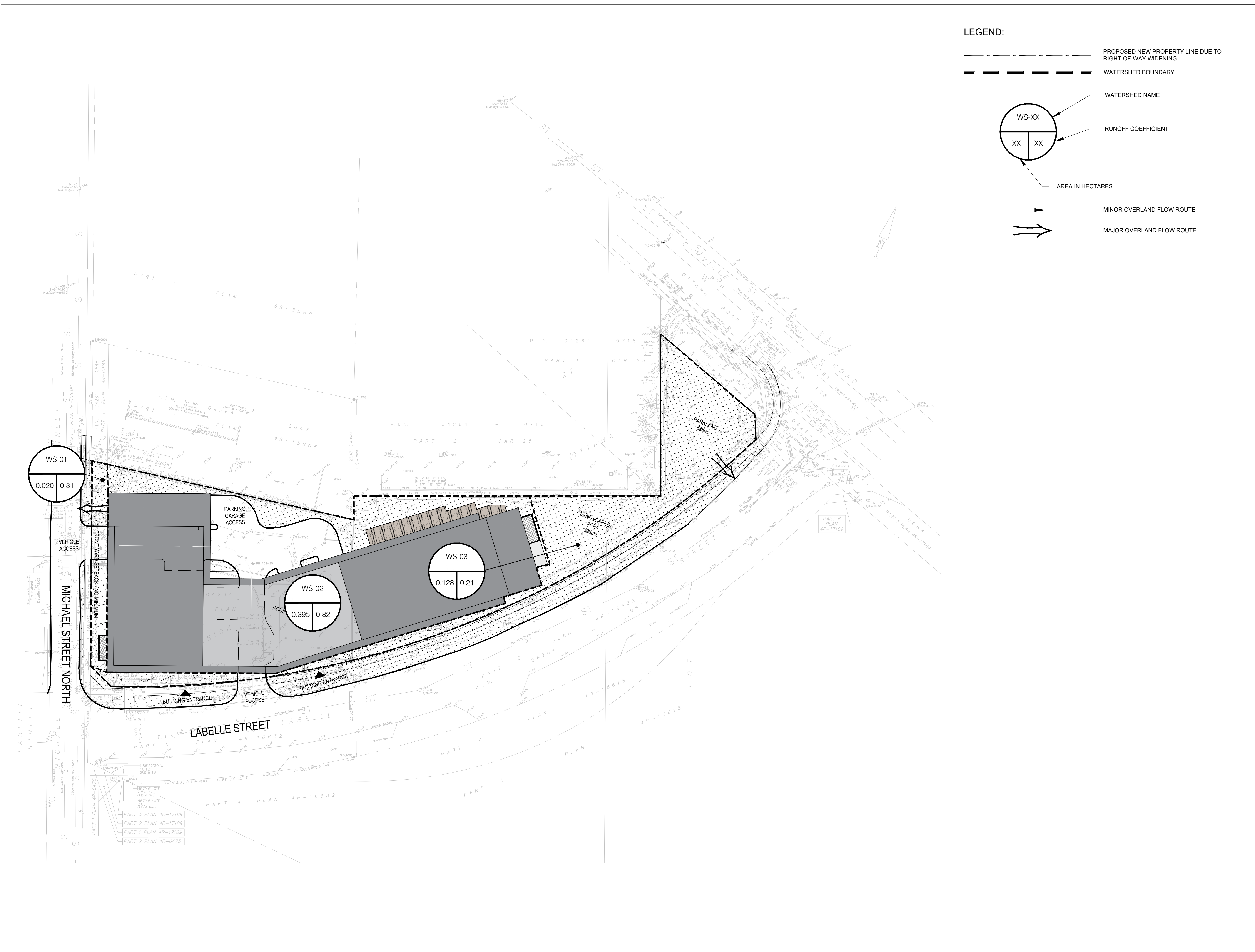
PARSONS
 1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
 Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT
INSIDE EDGE

PROJECT
**1209 MICHAEL STREET NORTH
 OTTAWA, ONTARIO**

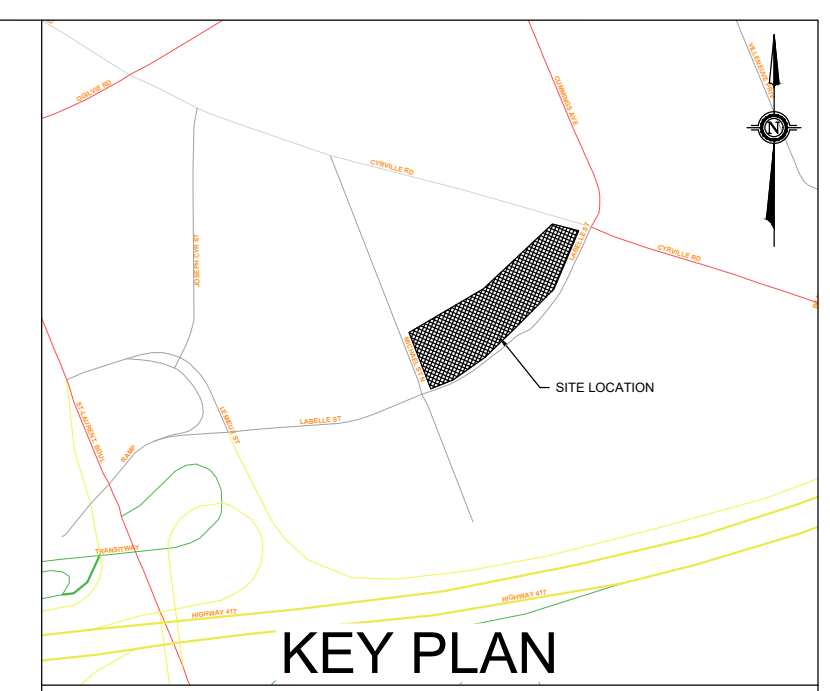
TITLE
**PRE DEVELOPMENT
 DRAINAGE AREAS**

DESIGNED BY	T.H.	PROJECT NO.	479620
DRAWN BY	J.N.	C105	PRE
CHECKED BY	M.M.		
DATE	JAN 2026	DRAWING NO.	DRAWING
SCALE	1:400		



LEGEND:

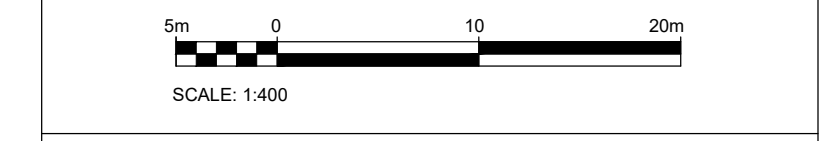
- PROPOSED NEW PROPERTY LINE DUE TO RIGHT-OF-WAY WIDENING
- WATERSHED BOUNDARY
- WATERSHED NAME
- RUNOFF COEFFICIENT
- AREA IN HECTARES
- MINOR OVERLAND FLOW ROUTE
- MAJOR OVERLAND FLOW ROUTE



TOPOGRAPHIC INFORMATION & BENCHMARK
 TOPOGRAPHIC SURVEY COMPLETED BY FARLEY, SMITH & DENIS SURVEYING LTD. ON NOVEMBER 7th, 2025. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD-1928:1978 GEODETIC DATUM.
 ELEVATIONS DERIVED FROM LRT BENCHMARK NO. 2011-090 HAVING A PUBLISHED ELEVATION OF 70.742.

No.	DATE	ISSUED FOR OPA/ZBA DESCRIPTION	T.H.
01	2026-01-06	ISSUED FOR OPA/ZBA	T.H.

REVISIONS



PARSONS
 1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
 Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT
INSIDE EDGE

PROJECT
**1209 MICHAEL STREET NORTH
 OTTAWA, ONTARIO**

TITLE
**POST DEVELOPMENT
 DRAINAGE AREAS**

DESIGNED BY	T.H.	PROJECT NO.	479620
DRAWN BY	J.N.	C106	POST
CHECKED BY	M.M.		
DATE	JAN 2026	DRAWING NO.	DRAWING
SCALE	1:400		