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495 Richmond Road

Servicing and Stormwater Management Report

PROPOSED RESIDENTIAL DEVELOPMENT

495 RICHMOND ROAD
OTTAWA, ONTARIO

SERVICING AND STORMWATER MANAGEMENT REPORT

Prepared By:

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Issued: November 7, 2025

Novatech File: 125090
Report Ref: R-2025-102

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Engineers, Planners & Landscape Architects

November 7, 2025

City of Ottawa
Planning, Real Estate and Economic Development Department
Development Review – Central Branch
110 Laurier Avenue West
Ottawa, ON
K1P 1J1

Attention: **Mr. Mohammed Fawzi**

Reference: **Servicing and Stormwater Management Report**
Proposed Residential Development
495 Richmond Rad, Ottawa, Ontario
Novatech File No.: 125090

Enclosed is a copy of the 'Servicing and Stormwater Management Report' for the proposed conversion of the existing office building into residential at 495 Richmond Road, in the City of Ottawa. This report addresses the approach to site servicing and stormwater management and is submitted in support of the Site Plan Control application.

Please contact the undersigned, should you have any questions or require additional information.

Yours truly,

NOVATECH

MSavic

Miroslav Savic, P. Eng.
Senior Project Manager | Land Development Engineering

cc: Evan Garfinkel (Regional Group)

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1.0 INTRODUCTION

Novatech has been retained to complete the site servicing and stormwater management design for the proposed development located at 495 Richmond Road, in the City of Ottawa.

The proposed development is a conversion of the existing 7-storey office building into a residential building.

This report addresses the approach to servicing and stormwater management and is being submitted in support of the Site Plan Control application for the residential portion of the site. The commercial development is a subject of a separate Site Plan Control application.

1.1 Site Description and Location

The subject site is located on the north side of Richmond Road and is surrounded by the existing condominium developments, Maplelawn Garden, The Keg Steakhouse parking lot, and Confederation Line railway corridor

The site is currently occupied by a 7-storey commercial building, the paved parking lot, and landscaped areas. The legal description of the subject site is designated as Part of Lot 29 Concession 1 (Ottawa Front) Geographic Township of Nepean, City of Ottawa.

Figure 1 – **Aerial Plan** provides an aerial view of the site.

1.2 Pre-Consultation Information

The pre-consultation meeting was held with the City of Ottawa on May 13, 2025, at which time the client was advised of the general submission requirements. Further discussions with the City of Ottawa were held with respect to stormwater management criteria for the site. Refer to **Appendix A** for feedback from the City of Ottawa following the pre-consultation meeting and follow up email correspondence with the City.

1.3 Proposed Development

The proposed development is conversion of the existing 7-storey office building into residential building. The residential building will have a total of 143 units, including 31 studios, 62 one bedroom, 20 one bedroom + den, 18 two bedroom, and 12 two bedroom + den units. New patios at the ground level will be added at the north and south side of the building. No changes to the existing paved parking lot are being proposed. Refer to **Appendix B** for the proposed Site Plan.

1.4 Site Servicing

The objective of the site servicing design is to provide proper sewage outlets, a suitable domestic water supply and to ensure that appropriate fire protection is provided for the proposed development. The servicing criteria, the expected sewage flows, and the water demands are to conform to the City of Ottawa municipal design guidelines for sewer and water distribution systems.

The City of Ottawa Servicing Study Guidelines for Development Applications requires that a Development Servicing Study Checklist be included to confirm that each applicable item is deemed complete and ready for review by City of Ottawa Infrastructure Approvals. Completed checklist is enclosed in **Appendix E** of the report.

The proposed development will continue to be serviced with the existing water, storm, and sanitary services. A second water connection to the municipal watermain system will be provided to meet the City of Ottawa requirements for developments with basic day demand exceeding 50 m3/day.

Refer to General Plan of Services (125090-GP) enclosed in **Appendix F** for detailed site servicing information.

2.0 WATER SERVICING

2.1 Existing Water Servicing

The existing development is serviced by a 203mm diameter private watermain connected to the existing 305mm diameter municipal watermain in Richmond Road. The existing 203mm diameter watermain is extended to the east to service the adjacent condominium tower located at 485 Richmond Road. A 203mm diameter fire service and a 102mm diameter domestic service are provided for the existing commercial building. Water supply for fire protection is provided from an on-site fire hydrant located within 45m from the building siamese connection location.

2.2 Proposed Water Servicing

The proposed development will continue to be serviced by the existing 203mm watermain connection to the 305mm diameter watermain. The location of the incoming water service to the building will be relocated further south to better match with the new water entry room location

Since the basic water demand for the converted residential building is greater than 50 m^3/day, a second connection to the municipal watermain will be provided by looping the proposed 203mm watermain on site and connecting to the existing 305mm diameter waterman in Richmond Road. A new water valve & valve box will be installed on Richmond Road watermain between the two connections. This will provide redundant water supply to the site in case of the municipal watermain failure.

A second water service connected to the watermain loop will also be provided to assure redundant water supply to the building in the case of the private watermain failure at any single point in the system.

2.2.1 Domestic Water Demands

The City of Ottawa design criteria were used to calculate the theoretical water demands for the proposed development (495 Richmond Road) and the existing condominium tower (485 Richmond Ra. The following design criteria were taken from Section 4 – 'Water Distribution Systems' of the Ottawa Design Guidelines – Water Distribution:

- Studio: 1.4 people per unit
- 1-Bedroom: 1.4 persons per unit
- 2-Bedroom: 2.1 persons per unit
- Average Apartment: 1.8 persons per unit
- Average Daily Residential Water Demand: 280 L/person/day
- Maximum Day Demand Peaking Factor = 2.5 x Avg. Day Demand
- Peak Hour Demand Peaking Factor = 2.2 x Max. Day Demand

The calculated water demands are summarized in **Table 2.1** below. Detailed calculations are included in **Appendix C**.

Table 2.1: Domestic Water Demand

Development	Ave. Daily Demand (L/s)	Max. Daily Demand (L/s)	Peak Hour Demand(L/s)
Proposed Residential (495 Richmond Rd)	0.72	1.79	3.94
Existing Condominium (485 Richmond Rd)	1.11	2.79	6.13

2.2.2 Fire Protection System

The proposed residential building will be fully sprinklered. Water supply for fire protection will be provided from the existing on-site private hydrant located within 45m unobstructed path from the fire department siamese connection location.

The Fire Underwriters Survey (FUS) was used to estimate fire flow requirements for the proposed development. The fire flow calculations are based on the building information provided by the

architect (Type II Non-combustible construction with protected vertical openings between floors, and fully sprinklered building).

The fire flow demand is estimated to be 83 L/s (5,000 L/min). The detailed FUS fire flow calculations are included in **Appendix C**.

2.2.3 Watermain Hydraulic Analysis

The above domestic water demands, and fire flow requirements were provided to the City of Ottawa. These values were used to generate the municipal watermain network boundary conditions at the two service connection points to Richmond Road watermains. **Table 2.2** and summarize the information provided by the City.

Table 2.22: Boundary Conditions

Demand Scenario	HGL
Minimum HGL	108.6 m
Maximum HGL	114.6 m
Max Day + Fire Flow (83 L/s)	110.7 m

The following design criteria were taken from Section 4.2.2 – 'Watermain Pressure and Demand Objectives' of the City of Ottawa Design Guidelines for Water Distribution:

- Maximum system pressure is not to exceed 552 kPa (80 psi)
- Minimum system pressures are to be >276 kPa (40 psi) under Peak Hour demand
- Minimum system pressures are to be >140 kPa (20 psi) under Max Day + Fire Flow demand

The hydraulic model EPANET was used for the purpose of analysing the performance of the proposed watermain. The model is based on the watermain boundary conditions provided by the City of Ottawa at the connections to the existing municipal watermain in Richmond Road.

A schematic representation of the hydraulic network in enclosed in **Appendix C**. The schematic depicts the junction and pipe numbers used in the model.

The modelling highlights the system pressures during 1) Maximum Day + Fire Flow Demand, 2) Peak Hour Demand, and 3) Average Day Demand conditions. The domestic water demands are applied at the building services (J4 and J8) and the fire flow demands are applied at the fire hydrant location (J3).

Tables 2.3, 2.4, and 2.5 summarize the demands and hydraulic model results under the various operating conditions. Refer to **Appendix C** for detailed modelling results.

Table 2.3: Hydraulic Model Results – Maximum Day + Fire Flow Demand

Operating Condition	Minimum Pressure
Max Day + Fire Flow Demand	431.3 kPa (62.6 psi)

Table 2.4: Hydraulic Model Results – Peak Hour Demand

Operating Condition	Minimum Pressure
Peak Hour Demand	430.5 kPa (62.4 psi)

Table 2.5: Hydraulic Model Results – Average Day Demand

Operating Condition	Maximum Pressure
Average Day Demand	521.9 kPa (75.7psi)

Based on the preceding analysis, the proposed watermain system will provide adequate system pressures to the proposed residential building.

3.0 SANITARY SERVICING

3.1 Existing Sanitary Sewer

The existing building is serviced by a 200mm diameter sanitary service connected to the existing 250mm diameter municipal sanitary sewer at the rear of the building. The 250mm diameter sewer is connected to the 1500mm diameter West Nepean Collector.

3.2 Proposed Sanitary Services

The proposed residential development will continue to be serviced with the existing 200mm diameter service connection.

3.2.1 Peak Sanitary Flows

The theoretical peak sanitary flow for the proposed development was calculated based on the following criteria from the City of Ottawa Sewer Design Guidelines.

- Studio: 1.4 persons per unit
- 1-Bedroom: 1.4 persons per unit
- 2-Bedroom: 2.1 persons per unit
- Average Daily Residential Sewage Flow: 280 L/person/day (ISTB-2018-01)
- Residential Peaking Factor calculated by the Harmon Equation
- Infiltration Allowance: 0.33 L/s/ha

The peak sanitary flow calculations are summarized below in **Table 3.1**. Detailed calculations are included in **Appendix D**.

Table 3.1: Peak Sanitary Flow Summary

Proposed Development	Peak Flow (L/s)	Infiltration Flow (L/s)	Total Peak Flow (L/s)
Residential	5.55	0.25	5.80

The existing 200mm diameter sanitary service at a typical slope of 1.0% has a full flow capacity of 34.2 L/s. Therefore, the existing sanitary service has sufficient capacity to convey sanitary flows from the proposed residential building.

Since the downstream connecting sewer is a trunk sewer, there are no capacity constraints within the city infrastructure to service the proposed development.

4.0 STORM SERVICING AND STORMWATER MANAGEMENT

4.1 Existing Conditions

The existing building is serviced by a 200mm diameter storm service connected to the existing 1500mm diameter municipal storm sewer at the rear of the building.

The parking lot drains towards the on-site catch basins connected to existing municipal storm sewer running within the easements along the south and west property line.

4.2 Proposed Conditions

No changes to the existing storm service and the storm sewer system are being proposed.

4.3 Stormwater Management

The site falls within the Stormwater Management Design Criteria for the Pinecrest Creek /Westboro Area report dated May 2020 by the City of Ottawa. With the office to residential building conversion the site is exempt from meeting the criteria set in the Pinecrest Creek/Westboro report.

No changes to the existing parking lot and the storm sewer system are being proposed, and therefore there are no opportunities to reduce the stormwater runoff from the site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

This report has been prepared in support of the Site Plan Control applications for the proposed development. The conclusions are as follows:

Watermain

- The proposed development will be serviced by a looped on-site watermain system connected to the existing 305mm diameter watermain in Richmond Road.
- A second water service to the building will be provided for redundancy purposes.
- The water supply for fire protection will be provided from the existing on-site fire hydrant.
- The proposed watermain system will provide adequate water supply and pressures to the proposed development.

Sanitary Servicing

- The proposed development will continue to be serviced by the existing 200mm diameter sanitary service connected to the 250mm diameter municipal sanitary sewer.
- There is adequate capacity within the existing sanitary service and downstream sanitary infrastructure to service the proposed development.

Storm Servicing

- The proposed development will continue to be serviced by the existing 200mm diameter sanitary service connected to the 1500mm diameter municipal storm sewer.
- No changes to the existing storm sewer system are being proposed.

It is recommended that the proposed site servicing and stormwater management design be approved for implementation.

NOVATECH

Prepared by:

Miroslav Savic, P.Eng.
Senior Project Manager
Land Development Engineering

Reviewed by:

J. Lee Sheets, C.E.T.
Director
Land Development & Public Sector Infrastructure

APPENDIX A

Correspondence

File No.: PC2025-0148

May 26, 2025

Dov Capital Corporation
c/o Shmuel Zimmerman
Via email: szimmerman@dovcapital.com

Subject: Pre-Consultation: Meeting Feedback
Proposed Site Plan Control Application – 495 Richmond Road

Please find below information regarding next steps as well as consolidated comments from the above-noted pre-consultation meeting held on May 13, 2025.

Pre-Consultation Preliminary Assessment

1 ☐	**2** ☐	**3** ☐	**4** ☐	**5** ☐

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.

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.

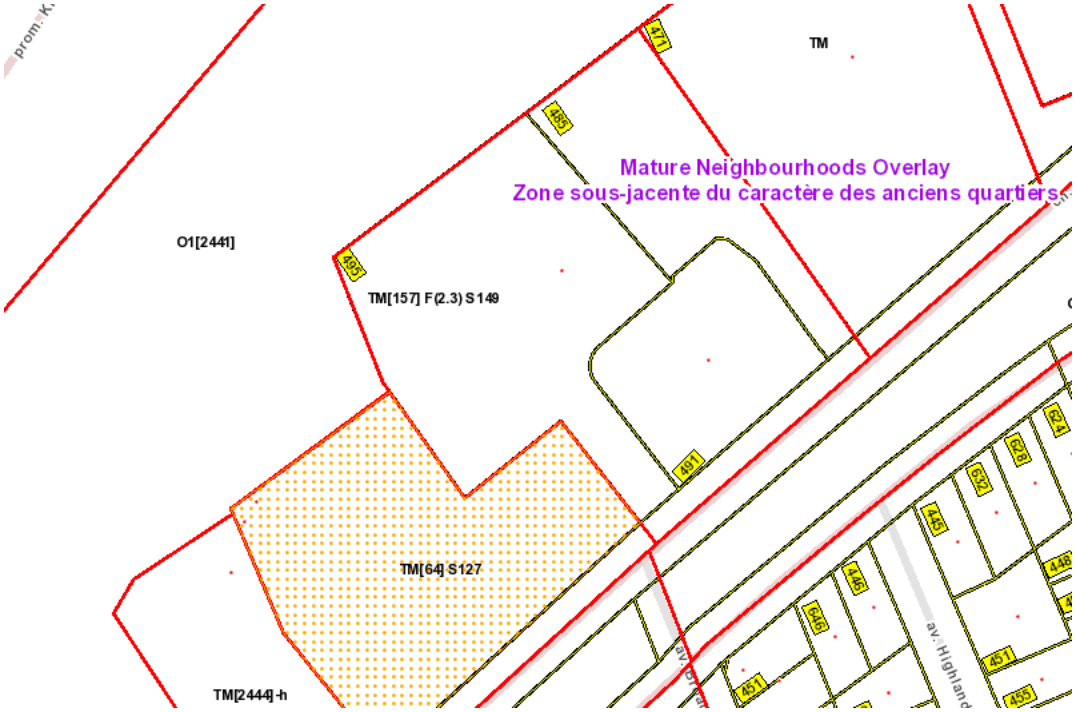
Planning

Comments:

1. The following Official Plan (Volume 1) policies apply to the site
    a. Transect Policy Area: Inner Urban, Mainstreet Corridor Designation Policies
        i. The proposed conversion is permitted within this designation
    b. There is a Major (Active Transportation) Pathway along Byron Avenue just south of the site, as shown on Schedule C3.
        i. Given the site's proximity to an extensive active transportation nextwork, bicycle parking is recommended to be provided at a ratio of 1 bicycle space per residential unit. Please also provide bicycle parking in secure, sheltered areas, and for all types of cyclists.
    c. The site is situated within a Design Priority Area, as shown on Schedule C7-A.
        i. Urban Design Review Panel will not be required for this conversion.
    d. The site abuts Urban Greenspaces to the north, west and south, as shown on Schedule C12.
        i. Please consult with the NCC if there are any impacts and/or connections proposed to these lands.
2. The site is also situated within the Richmond-Westboro Secondary Plan
    a. Planning Area Sector – Maple Lawn
        i. The proposal aligns with the direction provided in the Secondary Plan.

3. Zoning

a. The current zoning of the site is TM(157) F (2.3) S149.



b. As per Urban Exception 157,

i. 485, 495 and 491 Richmond are considered to be one-lot for zoning purposes.

ii. Minimum required landscaped area – 35% of lot area

c. Amenity Space requirements - Refer to both Section 76 (*NEW) and Section 137 of the Zoning By-law

d. Bicycle Parking – Refer to Section 111 of the Zoning By-law

e. Vehicular Parking – Area Y (Inner Urban Mainstreets)

i. No off-street motor vehicle parking is required for the first 12 residential units on a lot. Minimum parking space rate thereafter is 0.5 spaces per dwelling unit.

ii. Confirm existing uses at 485, 495 and 491 Richmond Road to calculate require parking.

f. Visitor parking – No visitor parking is required for the first 12 residential units, minimum visitor parking rate thereafter is 0.1 per unit on a lot

4. Community Benefits Charge

    a. Staff have confirmed that Community Benefits Charges will not apply to this development.

5. Process

    a. Office-to-Residential Conversion with no additions or new storeys are subject to a Site Plan Control – Standard application fee, and are subject to a scoped list of required plans/studies.

        i. From a planning perspective, a Survey, Site Plan, Landscape Plan, Zoning Confirmation Report, and Elevations will be required.

Urban Design

Submission Requirements

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

    a. Site Plan.

    b. Landscape Plan.

    c. Urban Design Brief

I have no additional urban design comments at this time.

This is an exciting project in an area full of potential. We look forward to helping you achieve its goals with the highest level of design resolution. We are happy to assist and answer any questions regarding the above. Good luck

Engineering

Comments:

Stormwater Management

7. For Office-to-Residential Conversions stormwater quantity control for the major (100 year) and minor (2 & 5 year) storm events is not required where the post development runoff rate will be less than or equal to the pre-development runoff rate (i.e. no flood control required).

8. However, this site falls within the special requirements area of Pinecrest Creek/Westboro. The applicant is to follow the requirements of the *Stormwater*

Management Design Criteria for the Pinecrest Creek/Westboro Area report dated May 2020 by the City of Ottawa (attached). These requirements are related to Runoff Volume Reduction and Water Quality control only for this site.

a. This site falls within the Westboro area *Draining Directly to the Ottawa River* category in Table 1 of the Pinecrest Creek/Westboro report.

    i. Runoff volume reduction of the first 10mm is to be provided. Please consider Low-Impact Development techniques as recommended in the report Table 1.

    ii. Quality control: 80% TSS removal from polluting areas on-site (i.e. asphalt and walkways), some of which may be acheived by the on-site retention of the first 10mm of rainfall.

9. For Stormwater Management calculations::

    a. Application of the IDF information derived from the Meteorological Services of Canada rainfall data, taken from the MacDonald Cartier Airport, collected 1966 to 1997.

    b. A calculated time of concentration (cannot be less than 10 minutes).

Water

10. The existing building is serviced from Richmond Rd through a private watermain network. Since the proposed development is for more than 50 units, a second connection to the Richmond Road watermain is required. Looping of the existing private watermain is the best approach.

11. Water Boundary condition requests must include the location of the service (map or plan with connection location(s) indicated) and the expected loads required by the proposed development, including calculations. Please provide the following information:

    i. Location of service
    ii. Type of development
    iii. The amount of fire flow required (per FUS).
    iv. Average daily demand: ___ L/s.
    v. Maximum daily demand: ___L/s.
    vi. Maximum hourly daily demand: ___ L/s.

12. The hydraulic watermain analysis will need to include the full private watermain and the loads from the other buildings on that system, under the various scenarios run.

13. Please confirm if the drive aisle/private street fronting the building and located over the underground parking garage is a proposed fire route. In recent years

Fire Services has indicated they will not allow fire routes over underground parking garages but makes exceptions if the parking garage was built to bridge standard (15 kPa). Please provide a stamped/signed letter from an engineer/architect attesting to the 15kPa and that additional signage will be put in place per the attached document Fire Access Route Signage – Parking Garage. Should further discussion on this item be needed, please reach out to the assigned Infrastructure Project Manager.

Sanitary

14. It appears the existing building is serviced from the rear of the building with a lateral connecting to the West Nepean Collector sanitary trunk sewer. The applicant is to confirm the location of the existing lateral, if it will be reused, and if it has capacity for the proposed flows.

15. Since the connecting public sewer is a trunk sewer, there are no capacity constraints within the public sewer to service this property.

Feel free to contact Gabrielle Schaeffer, Senior Engineer - Infrastructure Applications, for follow-up questions.

Noise

Comments:

16. Noise Impact Studies required for road and rail.

Feel free to contact Rochelle Fortier-Lesage, TPM, for follow-up questions.

Transportation

Comments:

17. Transportation Impact Assessment is not required for office to residential conversion, but Transportation Demand Management measures are strongly recommended. Fill out and provide TDM Checklists with the submission materials.

    a. TDM-Supportive Development Design and Infrastructure Checklist

    b. TDM Measures Checklist

18. O-Train Proximity Study will be required.

19. Ensure that the development proposal complies with the Right-of-Way protection requirements - See Schedule C16 of the Official Plan.

a. ROW must be unincumbered and conveyed at no cost to the City. Note that conveyance of the ROW will be required prior to registration of the SP agreement. Additional information on the conveyance process can be provided upon request.

b. Any requests for exceptions to ROW protection requirements must be discussed with Transportation Planning and concurrence provided by Transportation Planning management. The applicant shall submit support evidence and rationale to support any relief to Transportation Planning satisfaction.

20. As the site proposed is residential, AODA legislation applies for all areas accessible to the public (i.e. outdoor pathways, parking, etc.).

21. On Site Plan:

    a. Ensure site accesses meet the City's Private Approach Bylaw and all driveways/aisles meet the requirements outlined in Section 107 of the Zoning By-law.

    b. Show all details of the roads abutting the site; include such items as pavement markings, accesses and/or sidewalks.

    c. Show dimensions for site elements (i.e. lane/aisle widths, access width and throat length, parking stalls, sidewalks, pedestrian pathways, etc.)

    d. Grey out any area that will not be impacted by this application.

    e. If the intent is for cyclists to use stairwells, a bike runnel (also known as wheeling ramp or push ramp) should be provided.

Feel free to contact Rochelle Fortier-Lesage (rochelle.fortier@ottawa.ca), Transportation Project Manager, for follow-up questions.

Environment

Comments:

22. No trigger for an environmental impact study.

23. Bird-Safe Design Guidelines - Please review and incorporate bird safe design elements where feasible and practicle. Some of the risk factors include glass and related design traps such as corner glass and fly-through conditions, ventilation grates and open pipes, landscaping, light pollution. More guidance and solutions are available in the guidelines which can be found here: https://documents.ottawa.ca/sites/documents/files/birdsafedesign_guidelines_en.pdf

24. Please consider if there are features that can be added reduce the urban heat island effect (see OP 10.3.3). For example, this impact can be reduced by adding large canopy trees, green roofs or vegetation walls, or incorporating building with low heat absorbing materials.

Feel free to contact Matthew Hayley, Environmental Planner, for follow-up questions.

Forestry

Comments:

25. A Tree Conservation Report and Landscape Plan are required, in accordance with Schedule E of the Tree Protection By-law and the Landscape Plan Terms of Reference. Given that this project is to convert an existing building, the TCR and Landscape Plan can be combined in one plan.

26. Section 4.8.2 of the New Official Plan provides strong direction to maintain the urban forest canopy and its ecosystem services, prioritizing retention and protection of existing healthy trees over replacement plantings and compensation. Applications must address the cumulative impacts on the urban forest, over time and space, with the goal of 40% urban forest canopy cover in mind.

27. Plans for the proposed new planters above the underground parking should be designed to retain existing trees and expand to provide space for additional trees.

28. A permit is required prior to removal of any protected trees on site. The tree permit will be released upon site plan approval. Monetary compensation for City trees must be paid before the permit is issued. Please contact the planner associated with the file or the Planning Forester, Nancy Young (Nancy.young@ottawa.ca) for information on obtaining the tree permit.

29. To ensure that no harm is caused to breeding birds, tree removal and vegetation clearing should be avoided during the migratory bird season (April 15 – August 15) as specified by The City of Ottawa's Environmental Impact Study Guidelines.

Feel free to contact Nancy Young, Forester, for follow-up questions.

Parkland

Comments:

30. Given the size of the subject site, parkland conveyance would normally be required as per the Land First Policy. Understanding that there is an existing underground parking structure across the entire width of the site, which would

significantly reduce the future park's programming opportunities and translate into a strata ownership, cash-in-lieu of parkland can only be contemplated.

31. Should it be demonstrated that cash-in-lieu of parkland was paid for the existing development, the conveyance used to the establish the amount at the time would be subtracted from the updated calculation resulting conveyance. It is important to specify that the subtraction happens before applying the 10% cap.

    Feel free to contact steve.gauthier@ottawa.ca, Parks Planner, for follow-up questions.

National Capital Commission

If no works are proposed on federal lands, the NCC's approval is not required for the development. We offer comments as adjacent landowner, and as the federal authority responsible for the NCC's parkway network, for the Ottawa River South Shore Riverfront Park Plan lands to the north, and for the NCC-owned Maplelawn & Gardens National Historic Site that is adjacent.

Context

- The proposed development is adjacent to the Ottawa River South Shore Riverfront Park (ORSSRPP), which is the 220-hectare federal park that stretches from Mud Lake to LeBreton Flats. The NCC's intentions for these lands is laid out in the Ottawa River South Shore Riverfront Park Plan (ORSSRPP).

- The proposed development is also adjacent to the Kichi Zībī Mīkan, which is one of the NCC's Parkways. The Ottawa River Pathway runs along the river, as is laid out in the NCC's Capital Pathways Strategic Plan.

- The adjacent NCC-owned lands are designated as Capital Urban Greenspace in the Capital Urban Lands Plan.

Proposed Development

- The proposed development seeks to convert the existing office building into a residential apartment building with the existing underground parking spaces.

Comments

Easements

32. The development must protect for existing easements for traffic and pedestrian movement

Heritage

33. Maplelawn & Gardens is a Classified Federal Heritage Building, a National Historic Site, and is designated under Part IV of the Ontario Heritage Act.

34. Section 4.5.2 of the City's new Official Plan requires that 4.5.2 when reviewing "development applications affecting lands […] adjacent to a designated property, the City will ensure that the proposal is compatible by respecting and conserving the cultural heritage value and attributes of the heritage property". Moreover, the new OP requires that for "development […] adjacent to, […] a protected heritage property, the City will require a Heritage Impact Assessment".

35. The stone wall surrounding the garden at Maplelawn is vulnerable to vibrations and damage. Construction in the vicinity should be planned to prevent this. Through a future application for site plan control or prior to issuance of building permits, a pre-construction survey and monitoring plan should be developed to avoid impacts, identify them if they occur, and address their results.

Rochester Field

36. The adjacent Rochester Field lands are currently occupied as a staging area for the construction of the Stage 2 LRT. Following the completion of construction, a portion of Rochester Field is intended to be designed as a gateway park connecting Richmond Road to the Ottawa River South Shore Riverfront Park Plan (ORSSRPP).

37. While the design is not yet prepared, we recommend the development proponent consult the ORSSRPP, as there are applicable policy directions for Rochester Field that may influence how the proponent wishes to orient and design the proposed development, including:

    a. Restore woodland habitat to north of subject lands (section 4.1.1)

    b. Create an event site (section 4.2.2)

38. The design of the north and west sides of the site should avoid creating a user perception that the adjacent Ottawa River South Shore Riverfront Park land is part of the private development rather than publicly-owned space intended for natural heritage preservation.

    a. **Request:** That the proponent ensure that the design includes features to physically and visually delineate private and public space at the property edges.

Landscaping

39. The existing site plan agreement includes obligations to install landscaping adjacent to the Maplelawn Garden wall after consultation with the NCC and maintain a drainage swale adjacent to the Garden wall.

    a. **Requests:** That the City ensure a complete application includes a landscape plan which enhances landscaping adjacent to Maplelawn on the subject lands.

Pathways

40. The existing site plan agreement includes an obligation to provide a public pathway link over the lands to the north subject to the approval of the National Capital Commission. The proposed development may require the relocation of the existing pathway. Any works on federal lands will require Federal Land Use, Design and Transaction Approvals (FLUDTA).

Bird-Friendly Design

41. Modifications to the buildings' facades present an opportunity to bring the design into alignment with the City's bird-friendly design guidelines. Given that the Ottawa River is a major bird habitat and migratory route, this is particularly important for buildings directly abutting the river corridor.

Stormwater Management

42. The NCC does not accept the discharge of stormwater onto its lands. The site must direct its stormwater to municipal stormwater facilities.

    a. **Request:** That the City ensure that a complete application include a stormwater management plan that demonstrates no runoff to the NCC-owned lands to the north, and that employs best practices in treatment of stormwater to manage quality and quantity of runoff.

NCC Lands and Access

43. If during the preparation of the studies in support of the application, or during construction, the proponent or their consultants requires access to, or the use of, the abutting NCC lands, a Land Access Permit, is required from the NCC. It is the responsibility of the owner to initiate any formal requests to ensure adequate timing for any proposed access approvals from the NCC. It should not be assumed that construction access will be granted.

44. Depending on the duration of any construction access, if granted, other real estate instruments (e.g. license of occupation or temporary easement) may be required.

Trees

45. Adjacent NCC-owned lands feature mature trees that must be protected during and after construction.

    Requests:

    a. That the City ensure that a complete application Tree Conservation Report, which analyses both trees on the property and trees in proximity on adjacent NCC property that have the potential of impact due to construction.

    b. That the TCR identifies the location and ownership of trees by an Ontario Land Surveyor.

    c. That the TCR provides recommendations to prevent any injury to NCC-owned trees, including appropriate tree protection fencing during development.

Feel free to contact Ted Horton, NCC, for follow-up questions.

Other

46. 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. Site Plan Control (Standard) Process
    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,
Kimberley Baldwin

Encl. Studies and Plans Identification list

c.c. Colette Gorni, Planning Support
Gabi Schaeffer, Infrastructure PM
Rochelle Fortier, Transportation PM
Christopher Moise, Urban Design
Steve Gauthier, Parks and Facilities Planning
Matthew Hayley, Environmental Planning
National Capital Commission, Ted Horton, Edwin.Horton@ncc-ccn.ca

Miro Savic

From: Schaeffer, Gabrielle <gabrielle.schaeffer@Ottawa.ca>
Sent: Monday, July 7, 2025 12:03 PM
To: Evan Garfinkel; Baldwin, Kimberley
Cc: Fawzi, Mohammed; Gorni, Colette
Subject: RE: 495 Richmond Road - Pre-Con Follow Up (SWM Requirement)

Hi Evan,

With an office-to-residential conversion, it is understandable that the entirety o the Westboro/Pincrest Creek Stormwater Management Study cannot be met. Please make best efforts to reduce runoff volume, perhaps with some Low Impact Development techniques and discussion in your stormwater management report. However, you can consider this site exempt rom meeting the criteria set by the Pinecrest Creek/Westboro SWM Study, as long as best efforts are made and discussed in your report.

Best regards,
Gabrielle (Gabi) Schaeffer, P.Eng.
Senior Engineer, Infrastructure Applications | Ingénieur senior, Projets d'infrastructure
Development Review – West | Direction de l'examen des projets d'aménagement - Ouest
Planning, Development and Building Services | Direction générale des services de la planification, de l'aménagement et du bâtiment

City of Ottawa | Ville d'Ottawa
110 Laurier Avenue West | 110, avenue Laurier Ouest
Ottawa, ON, K1P 1J1
Mail Code | Code postal 01-14
Tel. | Tél. 613-580-2424, ext. | poste 22517

From: Evan Garfinkel <egarfinkel@regionalgroup.com>
Sent: Wednesday, July 2, 2025 10:52 AM
To: Baldwin, Kimberley <Kimberley.Baldwin@ottawa.ca>; Schaeffer, Gabrielle <gabrielle.schaeffer@Ottawa.ca>
Subject: RE: 495 Richmond Road - Pre-Con Follow Up (SWM Requirement)

Hi Kimberley and Gabrielle,

I wanted to ?ollow up on the e-mail below. Please let me know i?it would be help?ul to set up a meeting with our project engineer.

Best.

Evan Garfinkel
Senior Manager, Land Development

e: egarfinkel@regionalgroup.com
t: 613-230-210 0
m: (613) 884-55 74

regionalgroup.com
1737 Woodward Drive, 2nd Floor
Ottawa, ON
K2C 0P9

From: Evan Garfinkel
Sent: Tuesday, June 24, 2025 4:09 PM
To: Baldwin, Kimberley <kimberley.baldwin@ottawa.ca>; Schaeffer, Gabrielle <gabrielle.schaeffer@ottawa.ca>
Subject: 495 Richmond Road - Pre-Con Follow Up (SWM Requirement)

Hello Kimberley and Gabrielle,

I wanted to ?ollow up on the Pre-Consultation Feedback Form ?or the Office-to-Residential Conversion ?or 495 Richmond Road ?rom May.

Comment 8.a.i and 8.a.ii. require runoff volume reduction o?the first 10mm o?rain and 80% TSS removal. We are hoping that this comment can be removed ?rom our submission requirements as this more stringent stormwater requirement will require us to rip up the entirety o?existing parking lot.

As I am sure you can appreciate, we are trying to limit the scope o?work to inside the existing building ?ootprint to make this project ?easible. We do not ?eel that it would be reasonable to remove the entirety o?the parking lot, which was already Site Plan approved and is currently built out.

I?you can kindly review and provide comment, that would be greatly appreciated.

Best,

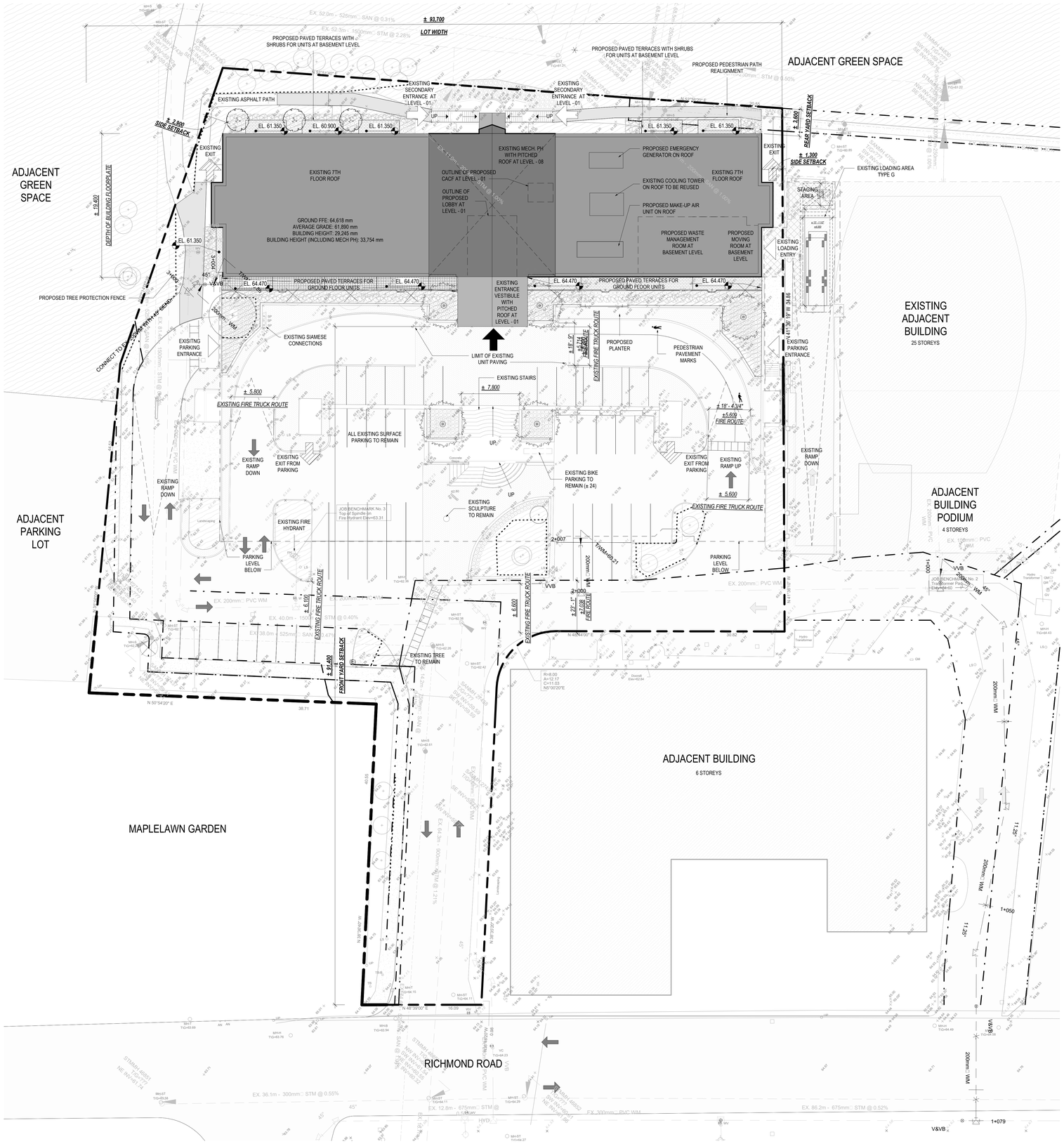
Evan Garfinkel
Senior Manager, Land Development

e: egarfinkel@regionalgroup.com
t: 613-230-2100
m: (613) 884-5574

regionalgroup.com
1737 Woodward Drive, 2nd Floor
Ottawa, ON
K2C 0P9

APPENDIX B

Site Plan



1 SITE PLAN
SCALE: 1 : 200

GENERAL NOTES

1) REFER TO LANDSCAPE DRAWINGS FOR MORE DETAILED INFORMATION ON LANDSCAPE ELEMENTS

2) REFER TO CIVIL ENGINEER'S DRAWINGS FOR MORE DETAILED SITE SERVICING AND GRADING INFORMATION

LEGEND

- ADJACENT BUILDING
- EXISTING ROAD
- EXISTING LOADING AREA
- EXISTING CONCRETE SIDEWALK
- EXISTING BRICK SIDEWALK
- PROPOSED ASPHALT PAVING REINSTATEMENT
- EXISTING GRAVEL PATH
- EXISTING GREEN SPACE TO REMAIN
- PROPOSED UNIT PAVING
- PROPOSED TREE PROTECTION FENCING
- PROPERTY LINE
- ADJACENT PROPERTY LINES & EASEMENT BOUNDARIES
- EXISTING PARKING LEVEL BELOW
- EXISTING LOADING ENTRY
- EXISTING EXIT
- EXISTING PRIMARY ENTRANCE
- EXISTING SECONDARY ENTRANCE
- EXISTING VEHICLE TRAFFIC DIRECTION
- EXISTING FIRE HYDRANT
- EXISTING SIAMESE
- ± XX' - XX" EXISTING DIMENISON
- PROPOSED LARGE TREE
- PROPOSED MEDIUM TREE
- PROPOSED SHRUB
- PROPOSED GRASSES / PERENNIALS
- EXISTING TREE TO REMAIN
- DEMOLISHED TREE
- 60.00 EXISTING ELEVATION
- 61.00 EXISTING TOP OF CONCRETE CURB ELEVATION
- EL. 65.00.00 PROPOSED ELEVATION
- EXISTING SURFACE PARKING SPACE 5200MM X 2600MM
- RAMP (POINTING UP)
- PROPOSED WATER SERVICE
- V&VB PROPOSED VALVE AND VALE BOX
- EXISTING WATER SERVICE
- V&VC EXISTING WATERMAIN C/W VALVE & VALVE CHAMBER
- EXISTING HYDRANT C/W VALVE & LEAD
- SAN MH EXISTING SANITARY MANHOLE & SEWER
- STM MH EXISTING STORM MANHOLE & SEWER
- EXISTING CATCHBASIN

495 RICHMOND ROAD

495 RICHMOND RD
OTTAWA, ON K2A 3W9

Gensler
Gensler
Architect
150 King St W Suite 1400,
Toronto, ON M5H 1J9
Tel (416) 601-3890

QUASAR CONSULTING GROUP
Quasar Consultant Group
M&E Consultant
250 Rowntree Dairy Rd,
Woodbridge, ON L4L 9J7, Canada
Tel (905)507-0800

NOVATECH
Engineers, Planners & Landscape Architects
Novatech Engineering Consultants
Civil Consultant
Suite 200 240 Michael Cowpland Dr.
Ottawa ON K2M 1P6
Tel (613) 254-9643

CUNLIFFE & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
Cunliffe & Associates Inc.
Structural Consultant
200, 1550 Carling Ave 2nd Floor,
Ottawa, ON K1Z 8S8
Tel (613) 729-7242

NAK design strategies
NAK Design Strategies
Landscape Consultant
213 Sterling Rd Unit 211
Toronto, ON M6R 2B2
Tel (416) 340-8700

△	Date	Description
2	2025-04-23	PRE-CONSULTATION APPLICATION PHASE I
3	2025-10-31	SITE PLAN APPLICATION

Seal / Signature

Project Name
DOV CAPITAL CORPORATION

Project Number
067.1403.000

Description
SITE PLAN

Scale
1 : 200

A1.151

APPENDIX C

Water Demands, FUS Calculations, Boundary Conditions

495 RICHMOD ROAD
WATER DEMAND

Studio	31	
Persons per Studio	1.4	
1 Bed	62	
Persons per 1 Bed Unit	1.4	
1 Bed + Den	20	
Persons per 1 Bed + Den Unit	1.4	
2 Bed	18	
Persons per 2 Bed Unit	2.1	
2 Bed + Den	12	
Persons per 2 Bed + Den Unit	2.1	
Total Population	221	
Average Day Demand	280	L/c/day
Average Day Demand	62	m^3/day

Average Day Demand	**0.72**	**L/s**
Maximum Day Demand (2.5 x Avg Day)	**1.79**	**L/s**
Peak Hour Demand (2.2 x Max Day)	**3.94**	**L/s**

485 RICHMOD ROAD
WATER DEMAND

Number of Units	191	
Average Persons per Unit	1.8	
Total Population	344	
Average Day Demand	280	L/c/day
Average Day Demand	96	m^3/day
Average Day Demand	**1.11**	**L/s**
Maximum Day Demand (2.5 x Avg Day)	**2.79**	**L/s**
Peak Hour Demand (2.2 x Max Day)	**6.13**	**L/s**

FUS - Fire Flow Calculations

NOVATECH
Engineers, Planners & Landscape Architects

Novatech Project #: 125090
Project Name: 495 Richmond
Date: 8/22/2025
Input By: MS
Reviewed By:
Drawing Reference:

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

Building Description: 7-Storey Residential Tower
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	Building Footprint (m^2)	1403			
		Number of Floors/Storeys	7			
		Protected Openings (1 hr) if C<1.0	Yes			
		Area of structure considered (m^2)			**2,105**	
	F	**Base fire flow without reductions**				**8,000**
		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%	**6,800**
		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%	**-2,720**
		Standard Water Supply	Yes	-10%	-10%	
		Fully Supervised System	No	-10%		
				Cumulative Sub-Total	**-40%**	
		Area of Sprinklered Coverage (m^2)	9821	100%		
				Cumulative Total	**-40%**	
5	**Exposure Surcharge**		**FUS Table 5**		**Surcharge**	
	(3)	North Side	>30m		0%	**1,360**
		East Side	3.1 - 10 m		20%	
		South Side	>30m		0%	
		West Side	>30m		0%	
				Cumulative Total	**20%**	
Results						
6	**(1) + (2) + (3)**	**Total Required Fire Flow, rounded to nearest 1000L/min**			**L/min**	**5,000**
		(2,000 L/min < Fire Flow < 45,000 L/min)		or	L/s	**83**
				or	USGPM	1,321

495 RICHMOND ROAD
WATERMAIN MODELING RESULTS

Maximum Day + Fire Flow Demand
Network Table - Nodes

Node ID	Elevation m	Demand LPS	Head m	Pressure m	kPa	psi
Junc J1	61.46	0	109.35	47.89	469.8	68.1
Junc J2	62.14	0	108.2	46.06	451.8	65.5
Junc J3	62.8	83	106.77	43.97	431.3	62.6
Junc J4	61.4	1.79	108.2	46.8	459.1	66.6
Junc J5	64.24	0	110	45.76	448.9	65.1
Junc J6	64.48	0	110	45.52	446.6	64.8
Junc J7	64.7	0	110	45.3	444.4	64.5
Junc J8	64.5	2.79	110	45.5	446.4	64.7
Junc J9	62.8	0	109.63	46.83	459.4	66.6
Junc J10	62.6	0	109.63	47.03	461.4	66.9
Resvr R1	110.7	-52.58	110.7	0	0.0	0.0
Resvr R2	110.7	-35	110.7	0	0.0	0.0

Maximum Day + Fire Flow Demand
Network Table - Links

Link ID	Length m	Diameter mm	Roughness	Flow LPS	Velocity m/s	Unit Headloss m/km
Pipe P1	70.1	200	110	52.58	1.7	19.2
Pipe P2	24.8	200	110	84.79	2.7	46.5
Pipe P3	61.8	200	110	1.79	0.1	0.0
Pipe P5	77.6	200	110	-35	1.1	9.0
Pipe P6	4.6	200	110	2.79	0.1	0.1
Pipe P7	11.6	150	100	0	0.0	0.0
Pipe P8	9	200	110	2.79	0.1	0.1
Pipe P9	6.6	150	100	83	4.7	216.5
Pipe P4	35	200	110	-32.21	1.0	7.7
Pipe P10	48.3	200	110	-32.21	1.0	7.7
Pipe P11	7.3	200	110	0	0.0	0.0

Peak Hour Demand
Network Table - Nodes

Node ID	Elevation m	Demand LPS	Head m	Pressure m	kPa	psi
Junc J1	61.46	0	108.58	47.12	462.2	67.0
Junc J2	62.14	0	108.58	46.44	455.6	66.1
Junc J3	62.8	0	108.58	45.78	449.1	65.1
Junc J4	61.4	3.94	108.57	47.17	462.7	67.1
Junc J5	64.24	0	108.58	44.34	435.0	63.1
Junc J6	64.48	0	108.58	44.1	432.6	62.7
Junc J7	64.7	0	108.58	43.88	430.5	62.4
Junc J8	64.5	6.13	108.58	44.08	432.4	62.7
Junc J9	62.8	0	108.58	45.78	449.1	65.1
Junc J10	62.6	0	108.58	45.98	451.1	65.4
Resvr R1	108.6	-5.08	108.6	0	0.0	0.0
Resvr R2	108.6	-4.99	108.6	0	0.0	0.0

Peak Hour Demand
Network Table - Links

Link ID	Length m	Diameter mm	Roughness	Flow LPS	Velocity m/s	Unit Headloss m/km
Pipe P1	70.1	200	110	5.08	0.2	0.3
Pipe P2	24.8	200	110	3.94	0.1	0.2
Pipe P3	61.8	200	110	3.94	0.1	0.2
Pipe P5	77.6	200	110	-4.99	0.2	0.3
Pipe P6	4.6	200	110	6.13	0.2	0.4
Pipe P7	11.6	150	100	0	0.0	0.0
Pipe P8	9	200	110	6.13	0.2	0.4
Pipe P9	6.6	150	100	0	0.0	0.0
Pipe P4	35	200	110	1.14	0.0	0.0
Pipe P10	48.3	200	110	1.14	0.0	0.0
Pipe P11	7.3	200	110	0	0.0	0.0

495 RICHMOND ROAD
WATERMAIN MODELING RESULTS

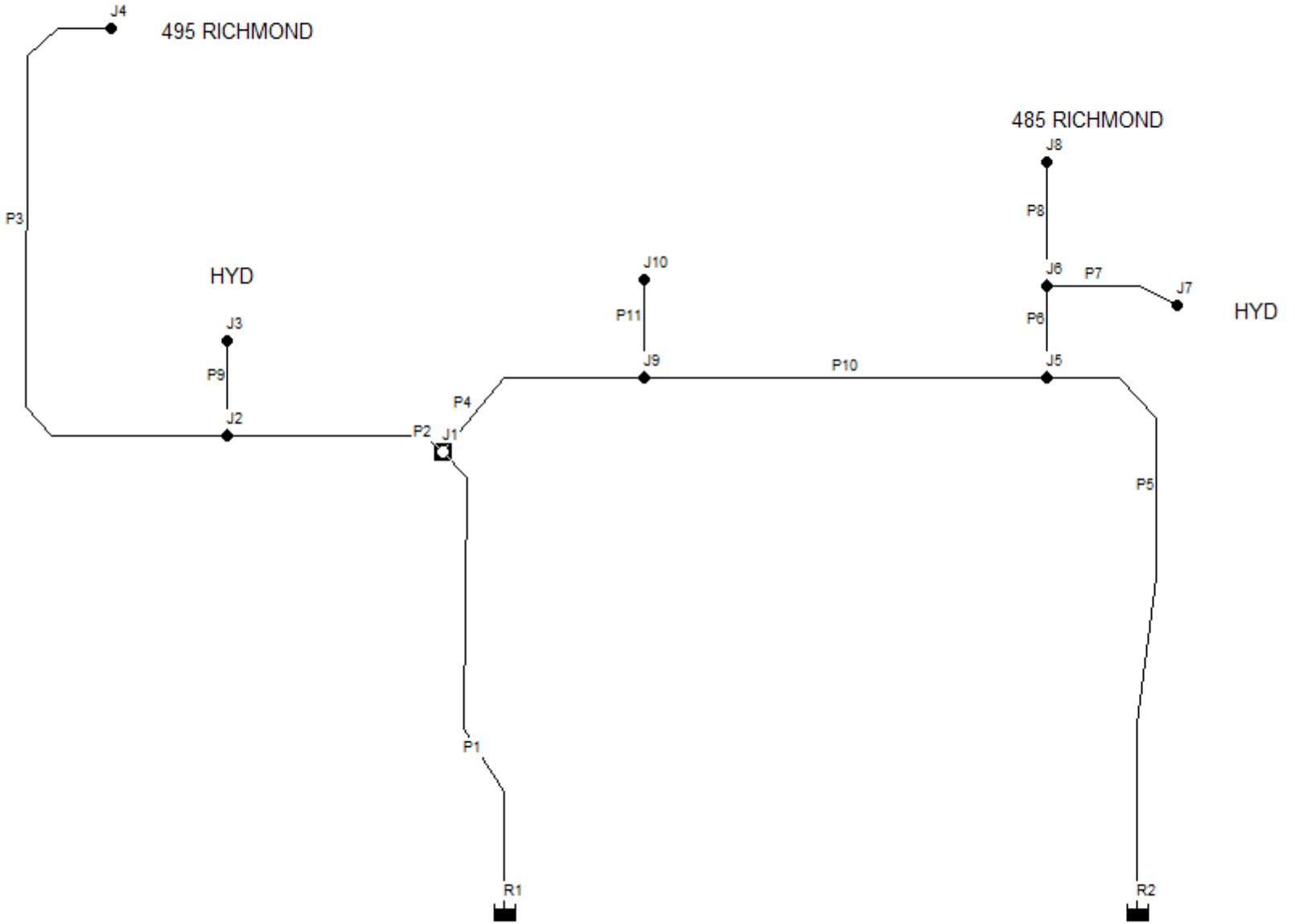
Average Day Demand
Network Table - Nodes

Node ID	Elevation m	Demand LPS	Head m	Pressure m	kPa	psi
Junc J1	61.46	0	114.6	53.14	521.3	75.6
Junc J2	62.14	0	114.6	52.46	514.6	74.6
Junc J3	62.8	0	114.6	51.8	508.2	73.7
Junc J4	61.4	0.72	114.6	53.2	521.9	75.7
Junc J5	64.24	0	114.6	50.36	494.0	71.7
Junc J6	64.48	0	114.6	50.12	491.7	71.3
Junc J7	64.7	0	114.6	49.9	489.5	71.0
Junc J8	64.5	1.11	114.6	50.1	491.5	71.3
Junc J9	62.8	0	114.6	51.8	508.2	73.7
Junc J10	62.6	0	114.6	52	510.1	74.0
Resvr R1	114.6	-0.92	114.6	0	0.0	0.0
Resvr R2	114.6	-0.91	114.6	0	0.0	0.0

Average Day Demand
Network Table - Links

Link ID	Length m	Diameter mm	Roughness	Flow LPS	Velocity m/s	Unit Headloss m/km
Pipe P1	70.1	200	110	0.92	0.0	0.0
Pipe P2	24.8	200	110	0.72	0.0	0.0
Pipe P3	61.8	200	110	0.72	0.0	0.0
Pipe P5	77.6	200	110	-0.91	0.0	0.0
Pipe P6	4.6	200	110	1.11	0.0	0.0
Pipe P7	11.6	150	100	0	0.0	0.0
Pipe P8	9	200	110	1.11	0.0	0.0
Pipe P9	6.6	150	100	0	0.0	0.0
Pipe P4	35	200	110	0.2	0.0	0.0
Pipe P10	48.3	200	110	0.2	0.0	0.0
Pipe P11	7.3	200	110	0	0.0	0.0

495 RICHMOND ROAD
WATERMAIN NETWORK



RICHMOND ROAD

Miro Savic

From: Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>
Sent: Friday, September 26, 2025 2:36 PM
To: Miro Savic
Cc: Lee Sheets
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request
Attachments: 495 Richmond Road September 2025.pdf

Hi Miro,

The following are boundary conditions, HGL, for hydraulic analysis at 495 Richmond Road (zone 1W) assumed to be connected via two (2) connections on Richmond Road and looped internally (see attached PDF for location).

Minimum HGL = 108.6 m
Maximum HGL = 114.6 m
Max Day + Fire Flow (83.0 L/s) = 110.7 m

These are for current conditions and are based on computer model simulation.
Disclaimer: The boundary condition information is based on current operation of the city water distribution system. The computer model simulation is based on the best information available at the time. The operation of the water distribution system can change on a regular basis, resulting in a variation in boundary conditions. The physical properties of watermains deteriorate over time, as such must be assumed in the absence of actual field test data. The variation in physical watermain properties can therefore alter the results of the computer model simulation.
"The IWSD has recently updated their water modelling software. Any significant difference between previously received BC results and newly received BC results could be attributed to this update."

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: September 18, 2025 1:04 PM

To: 'Miro Savic' <m.savic@novatech-eng.com>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request

Hi Miro,

This to confirm your request has been submitted. I'll try to get the results earlier than the 2-3 week timeline.

Regarding the watermain configuration, I'll discuss with the City's Water Distribution Group and if there are any concerns, I'll follow up with you.

Thanks Miro.

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: Miro Savic <m.savic@novatech-eng.com>
Sent: September 18, 2025 12:42 PM
To: Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request

Hi Mohammed,

Have you had a chance to talk to the water distribution group? Can you send the request for boundary conditions at the 2 locations, the existing and proposed. I'd like to get this moving since it usually takes 2-3 weeks to get boundary condition from the watermain modeling group.

Please give me a call if you would like to discuss.

Regards,

Miroslav Savic, P.Eng., Senior Project Manager | Land Development Engineering
NOVATECH
Engineers, Planners & Landscape Architects
240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6 | Tel: 613.254.9643 x 205

From: Miro Savic
Sent: Wednesday, September 17, 2025 2:24 PM
To: 'Fawzi, Mohammed' <mohammed.fawzi@ottawa.ca>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request

Hi Mohamad,

485, 495, and 491 Richmond Road are all separate titles.

Regards,

Miroslav Savic, P.Eng., Senior Project Manager | Land Development Engineering
NOVATECH
Engineers, Planners & Landscape Architects
240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6 | Tel: 613.254.9643 x 205
The information contained in this email message is confidential and is for exclusive use of the addressee.

From: Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>
Sent: Friday, September 12, 2025 7:24 AM
To: Miro Savic <m.savic@novatech-eng.com>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request

Hi Miro,

Could you also please confirm if 485, 495 & 491 are merged on title? I'll have to touch base with our Water Distribution Group and confirm if they are okay with the arrangement. I'd hate to proceed with the option below only to get pushback later on.

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

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

From: Miro Savic <m.savic@novatech-eng.com>
Sent: September 11, 2025 4:01 PM
To: Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request

Hi Mohammed,

A second service connection to the private watermain will can be provided as shown below (in addition to the second connection to the municipal waterman).
This configuration will provide redundancy for 495 Richmond Road in case of watermain failure at any single point in the system.

Regards,

Miroslav Savic, P.Eng., Senior Project Manager | Land Development Engineering
NOVATECH
Engineers, Planners & Landscape Architects
240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6 | Tel: 613.254.9643 x 205

From: Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>
Sent: Wednesday, September 10, 2025 2:16 PM
To: Miro Savic <m.savic@novatech-eng.com>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request

Thanks Miro.

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: Miro Savic <m.savic@novatech-eng.com>
Sent: September 10, 2025 2:04 PM
To: Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request

Hello Mohamed,

I just noticed you circled the private watermain. Let me review and get back to you.

Regards,

Miroslav Savic, P.Eng., Senior Project Manager | Land Development Engineering
NOVATECH
Engineers, Planners & Landscape Architects
240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6 | Tel: 613.254.9643 x 205

From: Miro Savic
Sent: Wednesday, September 10, 2025 1:52 PM
To: 'Fawzi, Mohammed' <mohammed.fawzi@ottawa.ca>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request

Hello Mohammed,

A new valve will need to be installed on the 3005mm Richmond Road waterman between the two service connection.

Regards,

Miroslav Savic, P.Eng., Senior Project Manager | Land Development Engineering
NOVATECH
Engineers, Planners & Landscape Architects
240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6 | Tel: 613.254.9643 x 205

From: Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>
Sent: Wednesday, September 10, 2025 1:28 PM
To: Miro Savic <m.savic@novatech-eng.com>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request

Hi Miro,

Before I send out the request for boundary conditions, could you please confirm how the proposed configuration would provide redundancy for 495 Richmond? If you refer to the screenshot below, if there were to be a break in the watermain circled in red, the second connection would not provide redundancy – the building would be left without water.

Thanks Miro.

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

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

From: Miro Savic <m.savic@novatech-eng.com>
Sent: September 9, 2025 8:28 AM
To: Schaeffer, Gabrielle <gabrielle.schaeffer@Ottawa.ca>; Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: RE: 495 Richmond Road - Water Boundary Conditions Request

Thank you Gabrielle.

Mohhamed,
Please forward the request to the water resources at your earliest convenience.

Regards,

Miroslav Savic, P.Eng., Senior Project Manager | Land Development Engineering
NOVATECH
Engineers, Planners & Landscape Architects
240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6 | Tel: 613.254.9643 x 205

From: Schaeffer, Gabrielle <gabrielle.schaeffer@Ottawa.ca>
Sent: Monday, September 8, 2025 4:10 PM
To: Fawzi, Mohammed <mohammed.fawzi@ottawa.ca>; Miro Savic <m.savic@novatech-eng.com>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: FW: 495 Richmond Road - Water Boundary Conditions Request

Hi Miro,

I have recently changed roles within the City. As such, I am passing your request along by way of this email to Mohammed Fawzi, who is the Senior Project Manager in DR West. He or someone on the team will look into this request for you.

Best regards,
Gabrielle (Gabi) Schaeffer, P.Eng.
Senior Project Manager, Infrastructure Projects| Gestionnaire principal, Projets d'infrastructure
Planning Operations | Opérations de planification

Planning, Development and Building Services | Direction générale des services de la planification, de l'aménagement et du bâtiment

City of Ottawa | Ville d'Ottawa
110 Laurier Avenue West | 110, avenue Laurier Ouest
Ottawa, ON, K1P 1J1
Mail Code | Code postal 01-14
Tel. | Tél. 613-580-2424, ext. | poste 22517

From: Miro Savic <m.savic@novatech-eng.com>
Sent: Monday, September 8, 2025 3:21 PM
To: Schaeffer, Gabrielle <gabrielle.schaeffer@Ottawa.ca>
Cc: Lee Sheets <l.sheets@novatech-eng.com>
Subject: 495 Richmond Road - Water Boundary Conditions Request

Hello Gabrielle,

I'm writing to request water boundary conditions for the proposed development located at 495 Richmond Road. The proposed development is a conversion of the existing 7-storey commercial building into residential.

The existing commercial building (495 Richmond Road) and the adjacent condominium tower (485 Richmond Road) are currently serviced by a single 203mm watermain feed connected to the existing 305mm diameter municipal watermain in Richmond Road.

Since the basic water demand for the proposed development is greater than 50 m^3/day, a second connection to the Richmond Road watermain is required. Refer to the attached sketch showing approximate location of the existing and the second watermain connection.

The FUS fire flow and domestic water demands for the proposed building conversion (495 Richmond Road) are estimated as follows:

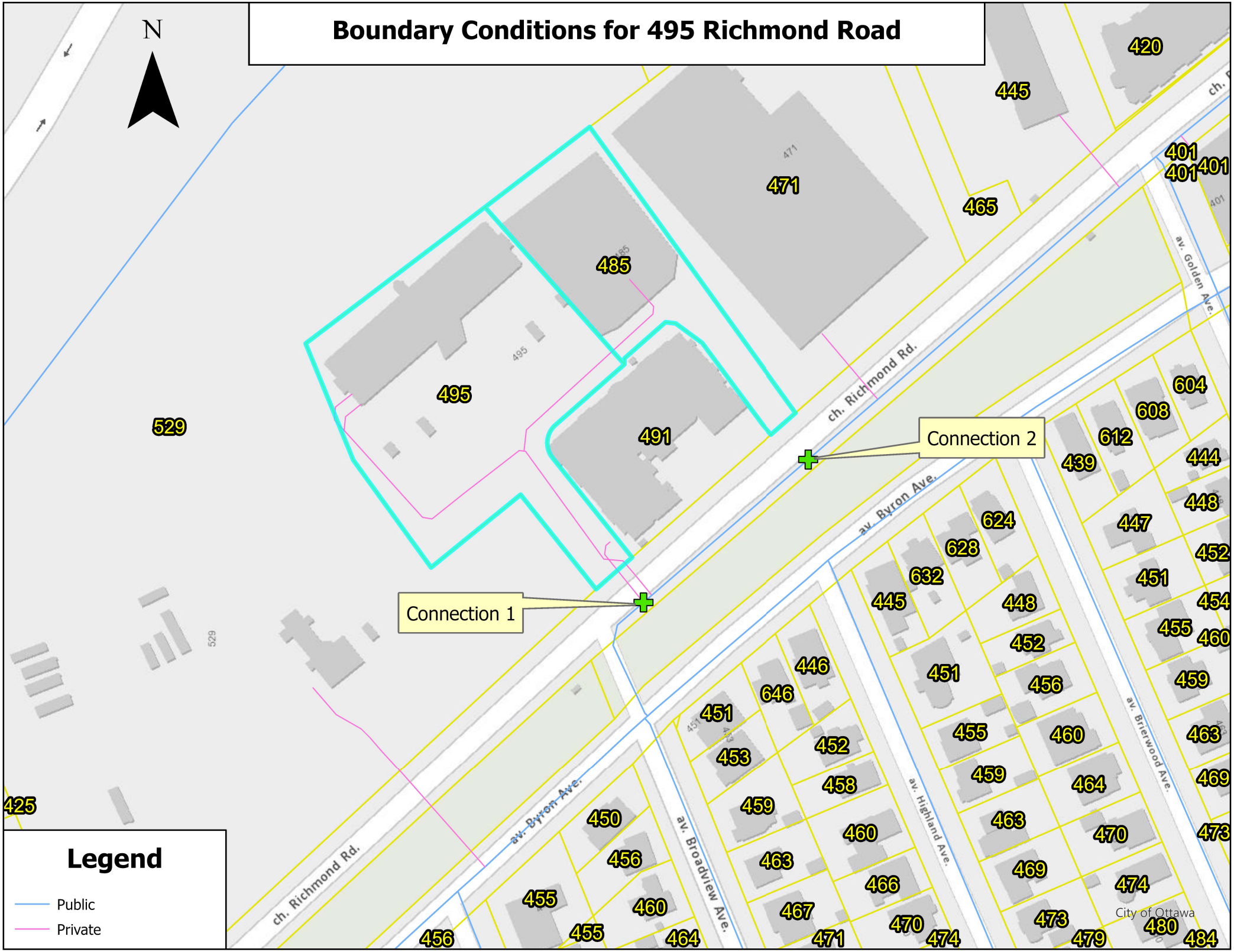
- FUS Fire Flow = 83 L/s (5,000 L/min)
- Average Day Demand = 0.72 L/s
- Maximum Day Demand = 1.79 L/s
- Peak Hour Demand = 3.94 L/s

The domestic water demands for the existing condominium tower (485 Richmond Road) are estimated as follows:

- Average Day Demand = 1.11 L/s
- Maximum Day Demand = 2.79 L/s
- Peak Hour Demand = 6.13 L/s

Regards,

Miroslav Savic, P.Eng., Senior Project Manager | Land Development Engineering


Boundary Conditions for 495 Richmond Road
N
Connection 1
Connection 2
ch. Richmond Rd.
av. Byron Ave.
av. Broadview Ave.
av. Highland Ave.
av. Brierwood Ave.
av. Golden Ave.
Legend
Public
Private
City of Ottawa

APPENDIX D

Sanitary Flow Calculation

495 RICHMOND ROAD
SANITARY FLOW

Studio	31	
Persons per Studio	1.4	
1 Bed	62	
Persons per 1 Bed Unit	1.4	
1 Bed + Den	20	
Persons per 1 Bed + Den Unit	1.4	
2 Bed	18	
Persons per 2 Bed Unit	18.0	
2 Bed + Den	12	
Persons per 2 Bed + Den Unit	2.1	
Total Population	507	
Average Daily Flow	280	L/c/day
Peak Factor (Harmon Formula)	3.38	
Peak Sanitary Flow	**5.55**	**L/s**
Site Area	0.75	ha
Infiltration Allowance	0.33	L/s/ha
Peak Extraneous Flows	**0.25**	**L/s**
Peak Sanitary Flow	**5.80**	**L/s**

APPENDIX E

Development Servicing Study Checklist

Servicing study guidelines for development applications

4. Development Servicing Study Checklist

The following section describes the checklist of the required content of servicing studies. It is expected that the proponent will address each one of the following items for the study to be deemed complete and ready for review by City of Ottawa Infrastructure Approvals staff.

The level of required detail in the Servicing Study will increase depending on the type of application. For example, for Official Plan amendments and re-zoning applications, the main issues will be to determine the capacity requirements for the proposed change in land use and confirm this against the existing capacity constraint, and to define the solutions, phasing of works and the financing of works to address the capacity constraint. For subdivisions and site plans, the above will be required with additional detailed information supporting the servicing within the development boundary.

4.1 General Content

- ☐ Executive Summary (for larger reports only).
- ☒ Date and revision number of the report.
- ☒ Location map and plan showing municipal address, boundary, and layout of proposed development.
- ☒ Plan showing the site and location of all existing services.
- ☐ Development statistics, land use, density, adherence to zoning and official plan, and reference to applicable subwatershed and watershed plans that provide context to which individual developments must adhere.
- ☒ Summary of Pre-consultation Meetings with City and other approval agencies.
- ☐ Reference and confirm conformance to higher level studies and reports (Master Servicing Studies, Environmental Assessments, Community Design Plans), or in the case where it is not in conformance, the proponent must provide justification and develop a defendable design criteria.
- ☒ Statement of objectives and servicing criteria.
- ☒ Identification of existing and proposed infrastructure available in the immediate area.
- ☐ Identification of Environmentally Significant Areas, watercourses and Municipal Drains potentially impacted by the proposed development (Reference can be made to the Natural Heritage Studies, if available).
- ☐ Concept level master grading plan to confirm existing and proposed grades in the development. This is required to confirm the feasibility of proposed stormwater management and drainage, soil removal and fill constraints, and potential impacts to neighbouring properties. This is also required to confirm that the proposed grading will not impede existing major system flow paths.
- ☐ Identification of potential impacts of proposed piped services on private services (such as wells and septic fields on adjacent lands) and mitigation required to address potential impacts.
- ☐ Proposed phasing of the development, if applicable.

☐ Reference to geotechnical studies and recommendations concerning servicing.

☒ All preliminary and formal site plan submissions should have the following information:
- Metric scale
- North arrow (including construction North)
- Key plan
- Name and contact information of applicant and property owner
- Property limits including bearings and dimensions
- Existing and proposed structures and parking areas
- Easements, road widening and rights-of-way
- Adjacent street names

4.2 Development Servicing Report: Water

☐ Confirm consistency with Master Servicing Study, if available
☒ Availability of public infrastructure to service proposed development
☐ Identification of system constraints
☒ Identify boundary conditions
☒ Confirmation of adequate domestic supply and pressure
☒ Confirmation of adequate fire flow protection and confirmation that fire flow is calculated as per the Fire Underwriter's Survey. Output should show available fire flow at locations throughout the development.
☒ Provide a check of high pressures. If pressure is found to be high, an assessment is required to confirm the application of pressure reducing valves.
☐ Definition of phasing constraints. Hydraulic modeling is required to confirm servicing for all defined phases of the project including the ultimate design
☒ Address reliability requirements such as appropriate location of shut-off valves
☐ Check on the necessity of a pressure zone boundary modification.
☒ Reference to water supply analysis to show that major infrastructure is capable of delivering sufficient water for the proposed land use. This includes data that shows that the expected demands under average day, peak hour and fire flow conditions provide water within the required pressure range

- ☒ Description of the proposed water distribution network, including locations of proposed connections to the existing system, provisions for necessary looping, and appurtenances (valves, pressure reducing valves, valve chambers, and fire hydrants) including special metering provisions.
- ☐ Description of off-site required feedermains, booster pumping stations, and other water infrastructure that will be ultimately required to service proposed development, including financing, interim facilities, and timing of implementation.
- ☒ Confirmation that water demands are calculated based on the City of Ottawa Design Guidelines.
- ☒ Provision of a model schematic showing the boundary conditions locations, streets, parcels, and building locations for reference.

4.3 Development Servicing Report: Wastewater

- ☒ Summary of proposed design criteria (Note: Wet-weather flow criteria should not deviate from the City of Ottawa Sewer Design Guidelines. Monitored flow data from relatively new infrastructure cannot be used to justify capacity requirements for proposed infrastructure).
- ☐ Confirm consistency with Master Servicing Study and/or justifications for deviations.
- ☐ Consideration of local conditions that may contribute to extraneous flows that are higher than the recommended flows in the guidelines. This includes groundwater and soil conditions, and age and condition of sewers.
- ☒ Description of existing sanitary sewer available for discharge of wastewater from proposed development.
- ☒ Verify available capacity in downstream sanitary sewer and/or identification of upgrades necessary to service the proposed development. (Reference can be made to previously completed Master Servicing Study if applicable)
- ☐ Calculations related to dry-weather and wet-weather flow rates from the development in standard MOE sanitary sewer design table (Appendix ‘C’) format.
- ☐ Description of proposed sewer network including sewers, pumping stations, and forcemains.
- ☐ Discussion of previously identified environmental constraints and impact on servicing (environmental constraints are related to limitations imposed on the development in order to preserve the physical condition of watercourses, vegetation, soil cover, as well as protecting against water quantity and quality).
- ☐ Pumping stations: impacts of proposed development on existing pumping stations or requirements for new pumping station to service development.
- ☐ Forcemain capacity in terms of operational redundancy, surge pressure and maximum flow velocity.
- ☐ Identification and implementation of the emergency overflow from sanitary pumping stations in relation to the hydraulic grade line to protect against basement flooding.
- ☐ Special considerations such as contamination, corrosive environment etc.

4.4 Development Servicing Report: Stormwater Checklist

- ☒ Description of drainage outlets and downstream constraints including legality of outlets (i.e. municipal drain, right-of-way, watercourse, or private property)
- ☐ Analysis of available capacity in existing public infrastructure.
- ☒ A drawing showing the subject lands, its surroundings, the receiving watercourse, existing drainage patterns, and proposed drainage pattern.
- ☐ Water quantity control objective (e.g. controlling post-development peak flows to pre-development level for storm events ranging from the 2 or 5 year event (dependent on the receiving sewer design) to 100 year return period); if other objectives are being applied, a rationale must be included with reference to hydrologic analyses of the potentially affected subwatersheds, taking into account long-term cumulative effects.
- ☐ Water Quality control objective (basic, normal or enhanced level of protection based on the sensitivities of the receiving watercourse) and storage requirements.
- ☐ Description of the stormwater management concept with facility locations and descriptions with references and supporting information.
- ☐ Set-back from private sewage disposal systems.
- ☐ Watercourse and hazard lands setbacks.
- ☐ Record of pre-consultation with the Ontario Ministry of Environment and the Conservation Authority that has jurisdiction on the affected watershed.
- ☐ Confirm consistency with sub-watershed and Master Servicing Study, if applicable study exists.
- ☐ Storage requirements (complete with calculations) and conveyance capacity for minor events (1:5 year return period) and major events (1:100 year return period).
- ☐ Identification of watercourses within the proposed development and how watercourses will be protected, or, if necessary, altered by the proposed development with applicable approvals.
- ☐ Calculate pre and post development peak flow rates including a description of existing site conditions and proposed impervious areas and drainage catchments in comparison to existing conditions.
- ☐ Any proposed diversion of drainage catchment areas from one outlet to another.
- ☐ Proposed minor and major systems including locations and sizes of stormwater trunk sewers, and stormwater management facilities.
- ☐ If quantity control is not proposed, demonstration that downstream system has adequate capacity for the post-development flows up to and including the 100 year return period storm event.
- ☐ Identification of potential impacts to receiving watercourses
- ☐ Identification of municipal drains and related approval requirements.
- ☐ Descriptions of how the conveyance and storage capacity will be achieved for the development.
- ☐ 100 year flood levels and major flow routing to protect proposed development from flooding for establishing minimum building elevations (MBE) and overall grading.

- ☐ Inclusion of hydraulic analysis including hydraulic grade line elevations.
- ☐ Description of approach to erosion and sediment control during construction for the protection of receiving watercourse or drainage corridors.
- ☐ Identification of floodplains – proponent to obtain relevant floodplain information from the appropriate Conservation Authority. The proponent may be required to delineate floodplain elevations to the satisfaction of the Conservation Authority if such information is not available or if information does not match current conditions.
- ☐ Identification of fill constraints related to floodplain and geotechnical investigation.

4.5 Approval and Permit Requirements: Checklist

The Servicing Study shall provide a list of applicable permits and regulatory approvals necessary for the proposed development as well as the relevant issues affecting each approval. The approval and permitting shall include but not be limited to the following:

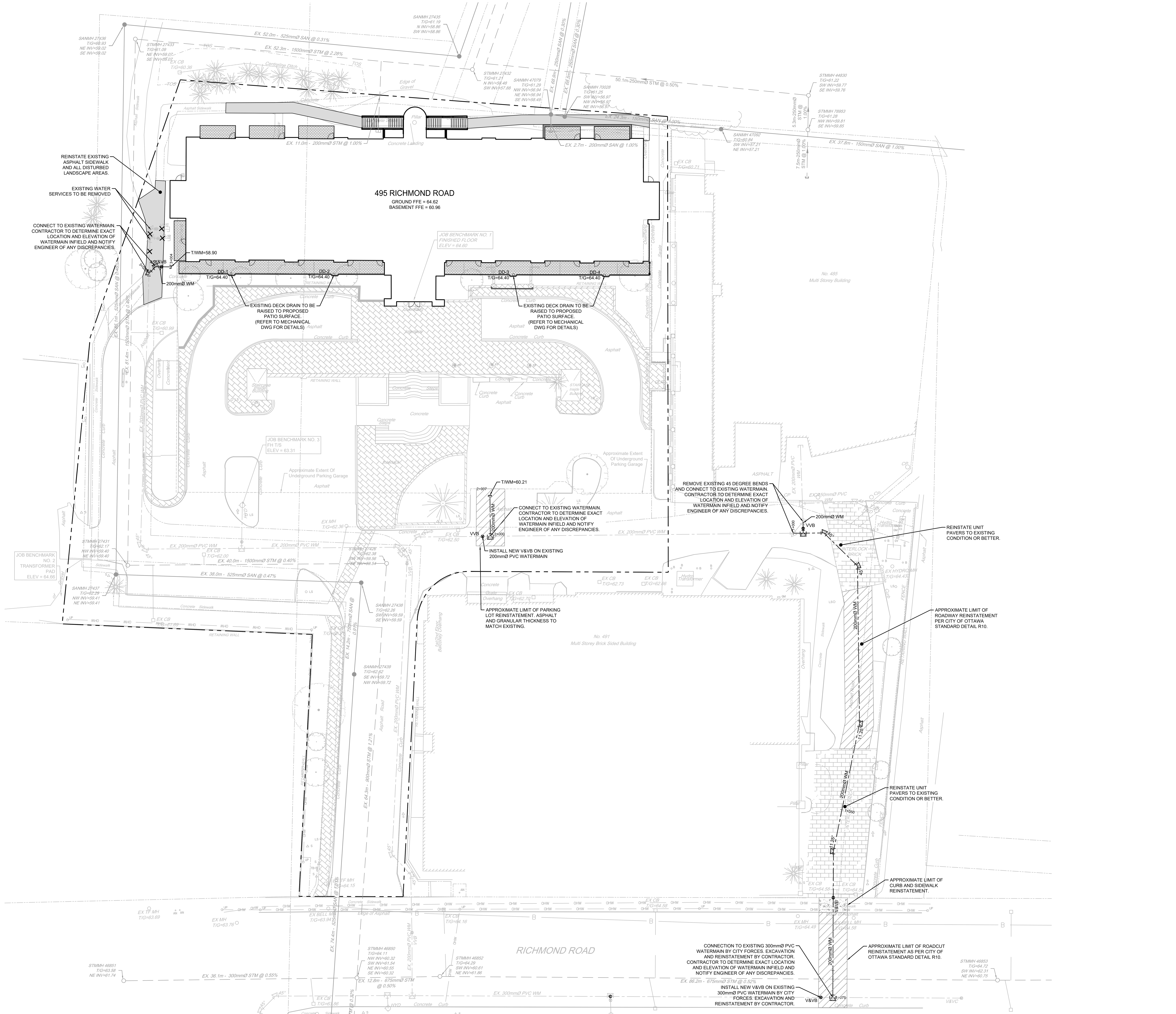
- ☐ Conservation Authority as the designated approval agency for modification of floodplain, potential impact on fish habitat, proposed works in or adjacent to a watercourse, cut/fill permits and Approval under Lakes and Rivers Improvement Act. The Conservation Authority is not the approval authority for the Lakes and Rivers Improvement Act. Where there are Conservation Authority regulations in place, approval under the Lakes and Rivers Improvement Act is not required, except in cases of dams as defined in the Act.
- ☐ Application for Certificate of Approval (CofA) under the Ontario Water Resources Act.
- ☐ Changes to Municipal Drains.
- ☐ Other permits (National Capital Commission, Parks Canada, Public Works and Government Services Canada, Ministry of Transportation etc.)

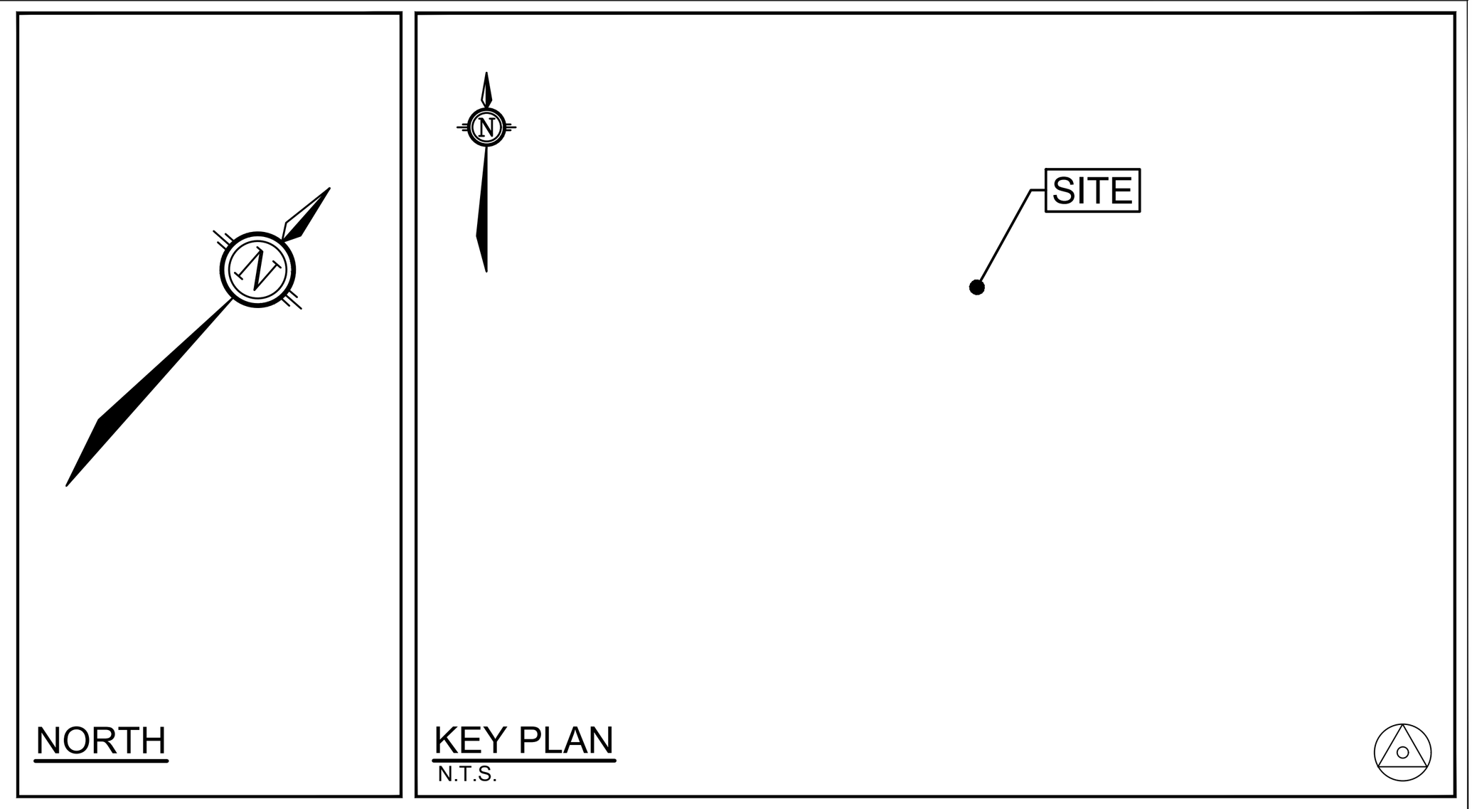
4.6 Conclusion Checklist

- ☒ Clearly stated conclusions and recommendations
- ☐ Comments received from review agencies including the City of Ottawa and information on how the comments were addressed. Final sign-off from the responsible reviewing agency.
- ☒ All draft and final reports shall be signed and stamped by a professional Engineer registered in Ontario

APPENDIX F

Drawings





LEGEND

- PROPERTY LINE
- PROPOSED WATER SERVICE
- PROPOSED HYDRANT c/w LEAD & VALVE
- V&VB ⊗ PROPOSED VALVE AND VALVE BOX
- DD PROPOSED DECK DRAIN (SEE MECHANICAL FOR DETAILS)
- EXISTING UTILITY POLE C/W GUY WIRES
- V&VC EXISTING WATERMAIN C/W VALVE & VALVE CHAMBER
- EXISTING HYDRANT C/W VALVE & LEAD
- SAN MH EXISTING SANITARY MANHOLE & SEWER
- STM MH EXISTING STORM MANHOLE & SEWER
- EXISTING CATCHBASIN
- EXISTING FENCE

GENERAL NOTES:

1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
2. DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
4. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR $5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
5. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
6. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
7. ALL ELEVATIONS ARE GEODETIC.
8. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
9. REFER TO DEVELOPMENT SERVICING STUDY & STORMWATER MANAGEMENT REPORT(R-2025-125) PREPARED BY NOVATECH.
10. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
11. COMPLETE ALL WORKS IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS USING THE CURRENT GUIDELINES, BYLAWS AND STANDARDS INCLUDING MATERIALS OF CONSTRUCTION, DISINFECTION AND ALL RELEVANT REFERENCES TO OPSS, OPSD, & AWWA GUIDELINES - ALL CURRENT VERSIONS AND AS AMENDED.
12. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.

WATERMAIN NOTES:

1. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
CONCRETE THRUST BLOCKS (UNDER 400mmØ)	W25.3	CITY OF OTTAWA
THRUST BLOCK TABLE (UNDER 400mmØ)	W25.4	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
WATERMAIN CROSSING ABOVE SEWER	W25.2	CITY OF OTTAWA
WATERMAIN	PVC DR 18	

2. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY FORCES.
3. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS. EXCAVATION, INSTALLATION OF SERVICE, BACKFILL AND RESTORATION BY THE CONTRACTOR.
4. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. WHERE DEPTH OF COVER IS LESS THAN 2.4m, WATERMAIN SHALL BE INSULATED PER CITY OF OTTAWA STANDARD DETAIL W22. WATERMAIN SHALL BE INSULATED BY OPEN STRUCTURES PER W23.
5. PROVIDE MINIMUM 0.25m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
6. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.

WATERMAIN TABLE

Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
1+000.00	64.14	61.74	CONNECTION TO EXISTING 200mm WM
1+001.53	64.24	61.84	TEE
1+004.73	64.44	62.04	45°
1+012.00	64.47	62.07	45°
1+025.00	64.77	62.37	
1+036.40	64.91	62.51	11.25°
1+050.00	64.95	62.55	
1+056.52	64.80	62.40	11.25°
1+063.73	64.56	61.76	V&VB
1+067.78	64.58	62.18	200mm WM UNDER BELL CANADA LINES
1+076.31	64.64	62.24	200mm WM OVER 675mm STORM WITH 0.75m COVER.
1+079.16	64.56	62.16	CONNECTION TO EXISTING 300mm WM

WATERMAIN TABLE

Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
2+000.00	62.65	60.25	TEE
2+006.34	62.61	60.21	CAP 1.0m FROM BUILDING

WATERMAIN TABLE

Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
3+000.00	61.31	58.91	CONNECT TO EX. 200WM WITH 45° BEND.
3+001.43	61.29	58.89	45°
3+002.35	61.29	58.89	V&VB
3+003.83	61.30	58.90	CAP 1.0m FROM BUILDING

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

M:\2025\125090\CAD\CIVIL\125090-GP.DWG 11/7/2025 2:28 PM - CVISSER

No.	REVISION	DATE	BY
1.	ISSUED FOR SPC APPLICATION	NOV 7/25	MS

SCALE 1:250

DESIGN CV | CHECKED MS | DRAWN CV | CHECKED MS | APPROVED JLS

FOR REVIEW ONLY

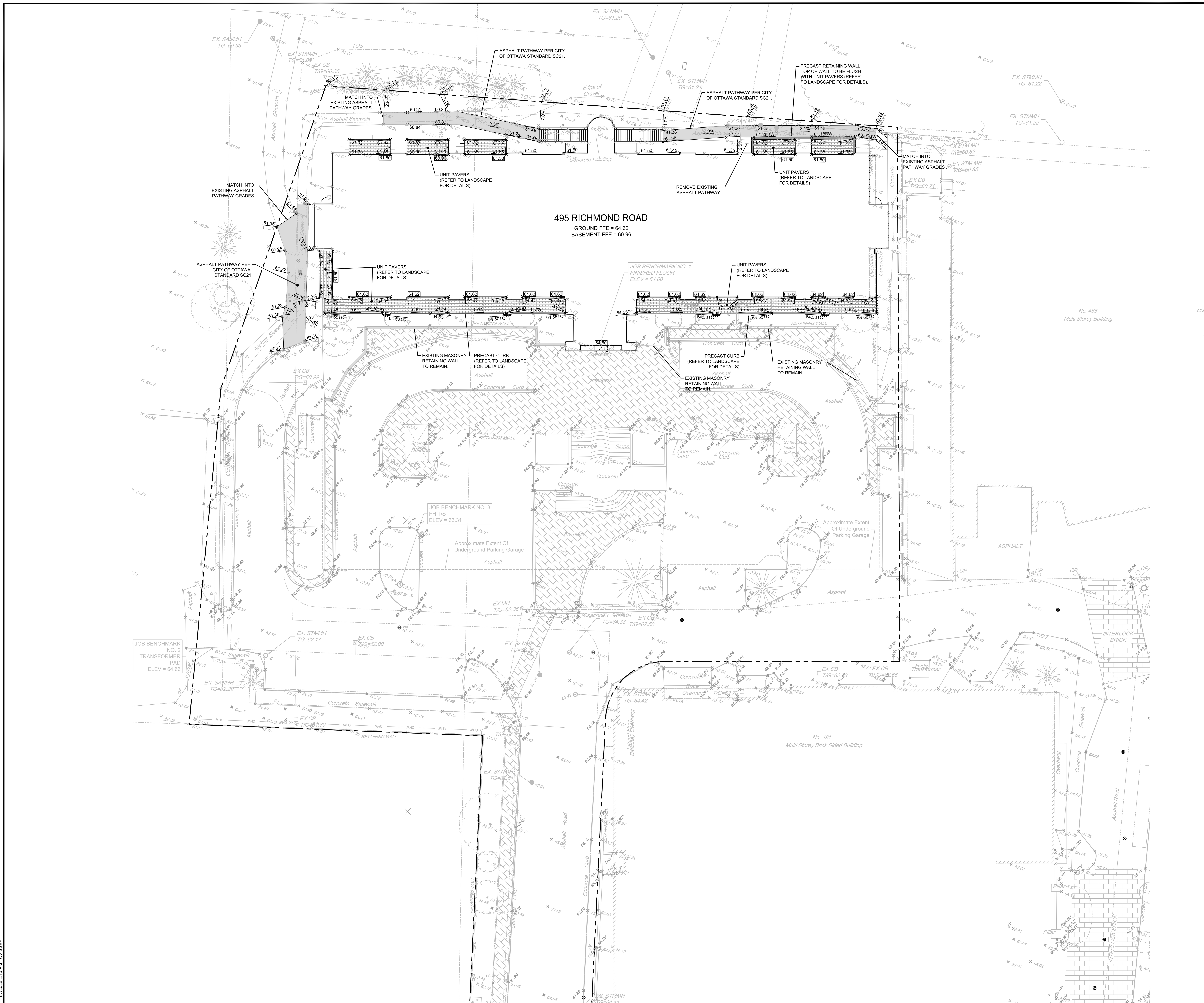
NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

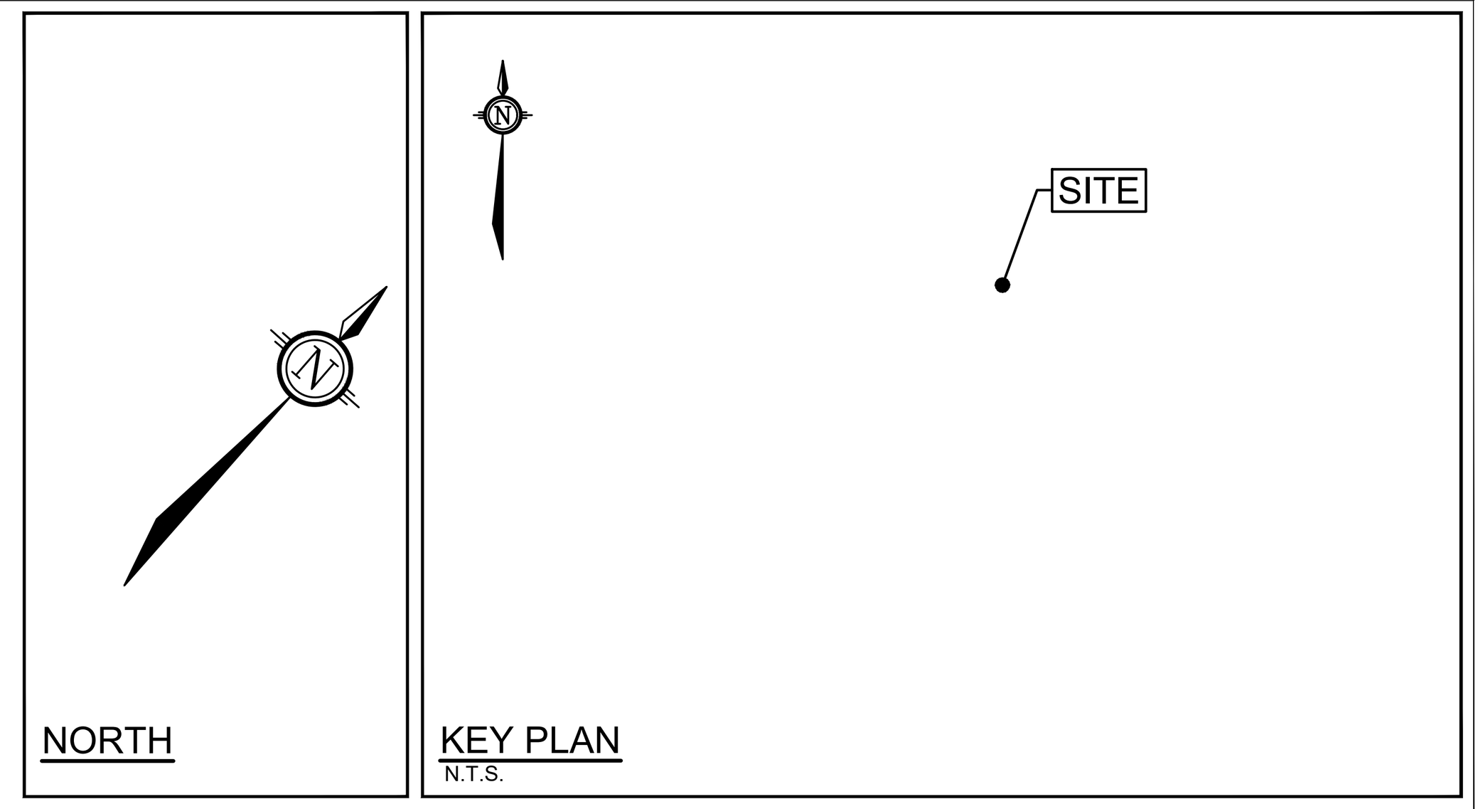
LOCATION
CITY of OTTAWA
495 RICHMOND ROAD

DRAWING NAME
GENERAL PLAN OF SERVICES

PROJECT No. 125090-00
REV REV # X
DRAWING No. 125090-GP

PLANB1.DWG - 1000mmx707mm





LEGEND

- PROPERTY LINE
- 59.85 — PROPOSED ELEVATION
- 59.83 — EXISTING ELEVATION
- 59.71TW — PROPOSED TOP OF WALL ELEVATION
- 57.23BW — PROPOSED BOTTOM OF WALL ELEVATION
- 2.0% — GRADE AND DIRECTION
- DD — PROPOSED DECK DRAIN (SEE MECHANICAL FOR DETAILS)
- X — REMOVAL AND/OR ABANDONMENT
- V&VB — PROPOSED VALVE AND VALVE BOX
- EXISTING EDGE OF PAVEMENT
- V&VB — EXISTING VALVE & VALVE BOX
- HYD — EXISTING HYDRANT
- COMB MH — EXISTING COMBINED MH
- CB — EXISTING CATCHBASIN
- EX UP — EXISTING UTILITY POLE
- EXISTING FENCE

GENERAL NOTES:

1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
2. DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
4. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR $5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
5. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
6. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
7. ALL ELEVATIONS ARE GEODETIC.
8. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
9. REFER TO DEVELOPMENT SERVICING STUDY & STORM WATER MANAGEMENT REPORT (R-2025-102) PREPARED BY NOVATECH.
10. COMPLETE ALL WORKS IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS USING THE CURRENT GUIDELINES, BYLAWS AND STANDARDS INCLUDING MATERIALS OF CONSTRUCTION, DISINFECTION AND ALL RELEVANT REFERENCES TO OPSS, OPSD, & AWWA GUIDELINES - ALL CURRENT VERSIONS AND AS AMENDED.
11. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.

GRADING NOTES:

1. ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED PAVED AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
2. EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE PROOF ROLLED WITH A LARGE STEEL DRUM ROLLER AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
3. ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUB-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOILS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
4. THE GRANULAR BASE SHOULD BE COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
5. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
6. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
7. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
8. REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
9. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.

EROSION AND SEDIMENT CONTROL NOTES :

1. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA. THEY ARE TO BE APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION. THESE PRACTICES ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL AND SHOULD INCLUDE AS A MINIMUM THOSE MEASURES INDICATED ON THE PLAN.
2. TO PREVENT SURFACE EROSION FROM ENTERING ANY STORM SEWER SYSTEM DURING CONSTRUCTION, FILTER BAGS WILL BE PLACED UNDER GRATES OF NEARBY CATCHBASINS AND STRUCTURES. A LIGHT DUTY SILT FENCE BARRIER WILL ALSO BE INSTALLED AROUND THE CONSTRUCTION AREA (WHERE APPLICABLE). THESE CONTROL MEASURES WILL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
3. THE SEDIMENT CONTROL MEASURES SHALL ONLY BE REMOVED WHEN, IN THE OPINION OF THE ENGINEER, THE MEASURES ARE NO LONGER REQUIRED. NO CONTROL MEASURES MAY BE PERMANENTLY REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
4. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY ACCIDENTAL DISCHARGES OF SEDIMENT MATERIAL INTO ANY STORM SEWER SYSTEM. APPROPRIATE RESPONSE MEASURES, INCLUDING ANY REPAIRS TO EXISTING CONTROL MEASURES OR THE IMPLEMENTATION OF ADDITIONAL CONTROL MEASURES, SHALL BE CARRIED OUT BY THE CONTRACTOR WITHOUT DELAY.
5. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
6. ROADWAYS ARE TO BE SWEPT AS REQUIRED OR AS DIRECTED BY THE ENGINEER AND/OR MUNICIPALITY.
7. THE CONTRACTOR SHALL ENSURE PROPER DUST CONTROL IS PROVIDED WITH THE APPLICATION OF WATER (AND IF REQUIRED, CALCIUM CHLORIDE) DURING DRY PERIODS.

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

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No.	REVISION	DATE	BY
1.	ISSUED FOR SPC APPLICATION	NOV 7/25	MS

SCALE 1:200

DESIGN	MS
CHECKED	MS
DRAWN	CV
CHECKED	MS
APPROVED	JLS

FOR REVIEW ONLY

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LOCATION
CITY OF OTTAWA
495 RICHMOND RD.

DRAWING NAME
GRADING PLAN

PROJECT No. 125090
REV: REV # 1
DRAWING No. 125090-GR

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