

Huntington Properties

ASSESSMENT OF ADEQUACY OF PUBLIC SERVICES

396 Cooper Street

August 2025

ASSESSMENT OF ADEQUACY OF PUBLIC SERVICES

396 Cooper Street

August 2025

Prepared By:

Arcadis Canada Inc.
333 Preston Street, Suite 500
Ottawa, Ontario K1S5N4
Canada
Phone: 613 721 0555

Prepared For:

Mathieu Desjardins
Development Project Manager
Huntington Properties
1306 Wellington Street West Suite 200
Ottawa, Ontario, K1Y 3B2

Our Ref:

x-6.0-6.04-03



Samantha Labadie, P.Eng.,
Engineer, Arcadis Canada Inc.



This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

Contents

1	Introduction.....	1
1.1	Purpose.....	1
1.2	Background.....	1
1.3	Subject Property.....	1
1.4	Phasing.....	1
1.5	Existing Infrastructure	1
1.6	Pre-Consultation.....	2
1.7	Geotechnical Considerations.....	2
2	Water Supply.....	3
2.1	Existing Conditions.....	3
2.2	Design Criteria	3
2.2.1	Water Demands.....	3
2.2.2	System Pressure.....	3
2.2.3	Fire Flow Rate	4
2.2.4	Boundary Conditions	4
2.3	Proposed Water Plan.....	4
3	Wastewater Disposal.....	6
3.1	Existing Conditions	6
3.2	Design Criteria	6
3.3	Proposed Wastewater Plan	6
4	Stormwater Management.....	8
4.1	Existing Conditions	8
4.2	Proposed Stormwater Plan.....	8
4.2.1	Offsite Grading.....	8
5	Sedimentation and Erosion Control Plan	9
5.1	General.....	9
6	Conclusions and Recommendations	9
6.1	Conclusion	9
6.2	Recommendation.....	9

Appendices

Appendix A

- Copy of the City of Ottawa Preconsultation Meeting Notes dated January 10, 2025
- Figure 1 - Site Plan
- Figure 2 - Existing Infrastructure

Appendix B

- Water Demand Calculations
- FUS Fire Flow Calculations
- Sprinkler Correspondence

Appendix C

- Drawing C-200, Site Grading Plan

1 Introduction

1.1 Purpose

The purpose of this report is to investigate and confirm the adequacy of public services for the proposed site. This report will review the availability of major municipal infrastructure including water supply, wastewater collection and disposal and management of stormwater.

This report is being prepared as a technical document in support of a re-zoning application for the subdivision and was prepared in accordance with the November 2009 “Servicing Study Guidelines for Development Applications” in the City of Ottawa.

1.2 Background

The 0.142 Ha subject property contains a four-storey, multi-tenant, commercial/office building and surface parking lot located at 396 Cooper Street. The building was reportedly constructed in 1960. Huntington is proposing to maintain the existing commercial uses on the first floor while repurposing the upper floors from office space to residential.

1.3 Subject Property

The subject property is identified as 396 Cooper Street. The site is presently improved with a four-storey, multi-tenant, commercial/office building with a Tim Hortons and Henry’s Camera Photo Shop on the first floor. The intention is to retain this building, converting the upper floors from office to residential.

Figure 1 - Site Plan, a copy of which is in **Appendix A**, shows the property limits. The site is bounded by Cooper Street to the north, residential to the east, Bank Street to the west, and mixed-use to the south.

1.4 Phasing

The proposal is to complete the redevelopment in one phase.

1.5 Existing Infrastructure

The existing building is currently improved with a 150mm PVC water service connected to the public 200mm watermain on Cooper Street, a 150mm sanitary service connected to the 450mm sanitary sewer on Bank Street, and a 150mm storm service connected to the 375mm storm sewer on Bank Street. See **Figure 2** in **Appendix A**.

1.6 Pre-Consultation

A pre-consultation meeting for the zoning application for 396 Cooper Street occurred with the City of Ottawa on January 7, 2025. A copy of the meeting notes dated January 10, 2025, is attached for reference in **Appendix A**. While there were comments related to Planning, Urban Design, Transportation, Forestry, Parkland, Heritage and Community Issues, there were several Engineering comments centered around existing services, sanitary flows, and hydrant coverage.

1.7 Geotechnical Considerations

Paterson Group completed Building Conditions Assessment on March 20, 2020, entitled “Building Condition Assessment 396 Cooper Street & 263 to 267 Bank Street Ottawa Ontario”. The purpose of the report was to:

- Determine the condition of the existing building
- Provide recommendations for maintenance work over the short, medium, and long term

The report includes discussions on such topics as site features, structural frame, and building envelope.

2 Water Supply

2.1 Existing Conditions

Two watermain are available for servicing the subject site, a 200mm ductile iron watermain in Cooper Street and a 300mm PVC watermain in Bank Street. As mentioned in Section 1.5, the building is currently serviced with a 150mm PVC connection to the 200mm watermain in Cooper Street. The building is not sprinklered at present.

Figure 2 – Existing Conditions in **Appendix A** shows the location of the service and watermain.

2.2 Design Criteria

2.2.1 Water Demands

The Site Plan consists of 33 residential units and maintaining the existing two commercial spaces on the first floor. Water demands have been calculated for the full development. Per unit population density and consumption rates are taken from Tables 4.1 and 4.2 at the Ottawa Design Guidelines – Water Distribution and are summarized as follows:

- ICI Average Day Demand 2500 l/m²/day
- ICI Peak Daily Demand 3750 l/m²/day
- ICI Peak Hour Demand 6750 l/m²/day
- Residential Average Day Demand 280 l/cap/day
- Residential Peak Daily Demand 700 l/cap/day
- Residential Peak Hour Demand 1540 l/cap/day

A watermain demand calculation sheet is included in **Appendix B** and the total water demands are summarized as follows:

Average Day	0.21 l/s
Peak Day	0.51 l/s
Peak Hour	1.12 l/s

2.2.2 System Pressure

The 2010 City of Ottawa Water Distribution Guidelines state that the preferred practice for design of a new distribution system is to have normal operating pressures range between 345 kPa (50 psi) and 552 kPa (80 psi) under maximum daily flow conditions. Other pressure criteria identified in the guidelines are as follows:

Minimum Pressure	Minimum system pressure under peak hour demand conditions shall not be less than 276 kPa (40 psi)
Fire Flow	During the period of maximum day demand, the system pressure shall not be less than 150 kPa (21 psi) during a fire flow event.
Maximum Pressure	Maximum pressure at any point in the distribution system shall not exceed 689 kPa (100 psi). In accordance with the Ontario Building/Plumbing Code, the maximum pressure should not exceed 552 kPa (80 psi). Pressure reduction controls may be required for buildings where it is not possible/feasible to maintain the system pressure below 552 kPa.

2.2.3 Fire Flow Rate

The Fire Underwriters Survey (FUS) method of calculating fire flow requirements was used in accordance with the Ottawa Design Guidelines – Water Distribution. Results of the analysis provides a maximum fire flow rate of 11,000 l/min or 183.3l/s is required which is to be used in the hydraulic analysis. A copy of the FUS calculations are included in **Appendix B** along with correspondence confirming sprinklers will be installed as part of the redevelopment.

2.2.4 Boundary Conditions

The City of Ottawa has provided a hydraulic boundary condition at the existing connection to the 200 mm main in Cooper Street. The boundary condition is based on the water demand and fire flow rates provided. A copy of the boundary conditions received June 6, 2025 is included in Appendix B and are summarized as follows:

BOUNDARY CONDITIONS	
SCENARIO	HGL (m)
Minimum HGL	106.9
Maximum HGL	115.1
Max Day + Fire Flow (183.3 l/s)	103.6

2.3 Proposed Water Plan

It is proposed to re-use the existing 150mm PVC water service for the redevelopment of 396 Cooper Street. **Figure 2** – Existing Conditions in **Appendix A** illustrates the existing layout of the water service supporting the development. As the calculated water demand is less than 50m³/day, a second connection for redundancy purposes is not required. Two existing fire hydrants are expected to provide fire flow coverage for the site, as can be seen in **Figure 2** in **Appendix A**. For the purposes of this report, assuming a minimal loss within the service connection the pressures within the site can be estimated as follows:

ASSESSMENT OF ADEQUACY OF PUBLIC SERVICES

396 Cooper Street

Minimum Pressure (Peak Hour) – The minimum peak hour pressure on the site can be estimated as the head during peak hour (106.9m) – meter elevation (73.1m) = 33.8m or 331.6 kPa, which exceeds the minimum requirement of 276 kPa. The pressure on the top floor can be estimated as 106.9m – highest floor elevation (84.7m) = 22.2m or 217.8 kPa, which is below the minimum of 276 kPa and therefore the building will require a water pump.

Fire Flow – The pressure during a max day plus fire flow scenario can be estimated as the head pressure (103.6m) – ground floor elevation (72.7m) = 30.9m or 303.1 kPa, which exceeds the minimum of 150 kPa.

Max HGL (High Pressure Check) – The high-pressure check can be estimated as the average day head pressure (115.1m) – lowest level elevation (72.7m) = 42.4m or 415.9 kPa, which is below the maximum of 552 kPa, therefore a pressure reducing valve is not required.

3 Wastewater Disposal

3.1 Existing Conditions

Two wastewater sewers border the site, a 250mm PVCC sanitary sewer in Cooper Street and a 450mm concrete sanitary sewer in Bank Street. As mentioned in Section 1.5, the building is currently serviced with a 150mm PVC connection to the 450mm sanitary in Bank Street. **Figure 2** – Existing Conditions in **Appendix A** shows the location of the service and mainline sewers.

3.2 Design Criteria

The sanitary flows for the development are based on the City of Ottawa design criteria which includes, but it not limited to the following criteria:

- | | |
|------------------------------|--|
| • Average Residential Flow | 280 l/p/d |
| • Average Population density | 1.8 PPU for apartments |
| • Residential Peaking Factor | Harmon Formula [max = 4.0, min. = 2.0] |
| • Commercial Flow | 2500 l/(1000m ² /d) |
| • ICI Peaking factor | 1.5 if ICI in contributing area >20%
1.0 if ICI in contributing area <20% |
| • Infiltration allowance | 0.33 l/s/ha |
| • Velocities | 0.60 m/s min. to 3.0 m/s max. |

3.3 Proposed Wastewater Plan

It is proposed to re-use the existing 150mm PVC sanitary service for the redevelopment of 396 Cooper Street. **Figure 2** – Existing Conditions in **Appendix A** illustrates the existing layout of the water service supporting the development.

The proposed redevelopment is a mixed-use commercial and residential development designed to provide a higher density to meet the City of Ottawa objective of more intensification to maximize use of existing infrastructure. The following reviews the impact of increased density on the volume of wastewater to be generated from the proposed development. The existing municipal sanitary sewer system that services these parcels would have operated based on commercial sewage loading of 2500 l/(1000m²/d) and infiltration allowance of 0.33l/s/Ha. For the 0.142 Ha site, this would result in an average flow of 0.088 l/s as shown below:

ASSESSMENT OF ADEQUACY OF PUBLIC SERVICES

396 Cooper Street

Avg commercial flow: $2500 \text{ l/(1000m}^2\text{/d)} \times 10,000 \text{ m}^2\text{/Ha} \times 0.142\text{Ha} = 3,550\text{l/d} = 0.041 \text{ l/s}$

Infiltration allowance: $0.142\text{Ha} \times 0.33\text{l/s/Ha} = 0.047 \text{ l/s}$,

Existing avg. operating flow, $0.041 + 0.047 = 0.088 \text{ l/s}$

The proposed mixed-use redevelopment includes residential and commercial uses. Based on the previously noted flow rates of 280 l/p/d for residential and 2500 l/(1000m²/d) for commercial, the average wastewater flow plus infiltration allowance calculates to 0.257l/s, as noted below:

Avg pop flow: $59.4 \text{ (33 units @ 1.8ppu)} \times 280 \text{ l/p/d} = 16,632 \text{ l/d} = 0.193 \text{ l/s}$

Infiltration allowance: $0.142\text{Ha} \times 0.33\text{l/s/Ha} = 0.047 \text{ l/s}$

Rezoned avg flow, $0.193 + 0.047 = 0.240 \text{ l/s}$

The proposed redevelopment results in a theoretical increase in average flow to the downstream system of $0.240 - 0.088 = 0.152 \text{ l/s}$. The sanitary service connection is to an existing 450mm dia sanitary sewer, thus it is anticipated, given the size of the sewer and the moderate increase in flow, that there is available capacity to accommodate the proposed redevelopment.

4 Stormwater Management

4.1 Existing Conditions

Two stormwater sewers border the site, a 525mm PVCC storm sewer in Cooper Street and a 525mm concrete storm sewer in Bank Street. As mentioned in Section 1.5, the building is currently serviced with a 150mm PVC connection to the 525mm storm in Bank Street. **Figure 2 – Existing Conditions in Appendix A** shows the location of the service and mainline sewers.

4.2 Proposed Stormwater Plan

As noted in the preconsult memo, the City of Ottawa is not requiring a grading and drainage plan be prepared unless changes to the existing grading or surface type are planned. No grading changes or surface type modifications (in the sense that hardscape surface will remain hardscape surface) that would affect stormwater are proposed onsite, thus stormwater calculations have not been performed for this application.

A portion of the existing asphalt parking lot will be removed and replaced with interlock pavers (see Site Grading Plan C-200 in **Appendix C**). The grading and drainage patterns are to be maintained. Additionally, a concrete pad for the garbage enclosure will be installed flush to asphalt and maintain existing grades. A pad mount transformer will be installed at the northeast corner of the existing parking lot, and will similarly tie-into existing grades and drainage patterns.

4.2.1 Offsite Grading

There currently is a grade differential of 0.14m (one step) in front of the residential entrance for the site. To comply with accessibility requirements, it is proposed to regrade the area in front of the entrance to be flush. Since there is minimal setback from the property line, the area to be regraded includes city sidewalk and part of Cooper Street right-of-way.

Site Grading Plan (drawing C-200 in **Appendix C**) illustrates the full area proposed to be removed and replaced, with grade differentials up to 6" from existing. This regrading would allow for the sidewalk to be raised 0.14m in front of the residential entrance, to be flush for wheelchair access, and maintains an acceptable slope for stormwater runoff towards existing catchbasins.

Cooper Street is currently superelevated at EXCB IN26643 and transitions to a crowned road approximately 7m to the east. To allow for sufficient slope in the roadway for stormwater runoff, it is proposed to move this transition from superelevated to a crowned road approximately 17m east. This would increase EXCB IN99044's drainage area by under 0.02 Ha and decrease EXCB IN99045's drainage area by the same amount (see drainage lines on drawing C-200), however this area change is minimal and both catchbasins outlet to the same storm sewer in Cooper Street.

5 Sedimentation and Erosion Control Plan

5.1 General

There are no excavation and dewatering works proposed for the subject site. As per the preconsult memo, since there are no major construction plans exterior to the building, no Sediment and Erosion Control Plan is required.

6 Conclusions and Recommendations

6.1 Conclusion

Municipal water, wastewater, and stormwater systems required to redevelop the proposed site plan are available. The conceptual servicing provided in this report demonstrates the onsite servicing can be designed in accordance with the City of Ottawa's current level of service requirements. In addition, the existing water distribution system can support the proposed redevelopment. We therefore conclude that the proposed site can be readily serviced.

6.2 Recommendation

Based on the conclusion noted above, we recommend that the zoning application not be held up because of the lack of adequacy of public services.

Appendix A



File No.: PC2024-0529

January 10, 2025

Rod Price
Demarco Construction
Via email: rod@demarcoconstruction.ca

**Subject: Pre-Consultation: Meeting Feedback
Proposed Site Plan Control Application – 396 Cooper Street**

Please find below information regarding next steps as well as consolidated comments from the above-noted pre-consultation meeting held on January 7, 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. Should you choose to proceed to complete a Phase 2 / Phase 3 Pre-consultation Application Form please submit it together with the necessary studies and/or plans to planningcirculations@ottawa.ca.
2. In your subsequent pre-consultation 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 to be included 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. However, please note that the pre-con process is not mandatory.

Consultation with Technical Agencies

4. 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

Site Planning Comments:

5. Staff generally support this Office-to-Residential Conversion proposal. Staff also appreciate the affording housing / CMHC funding component of the proposal. Staff request that additional details be provided on the affordability component of the proposal and CMHC funding, timelines, and details, including confirmation of the unit breakdown (e.g. 60% of the total unit count as noted during the pre-con meeting).
6. Please note Section 76 of the [Zoning By-Law](#) as it relates to Office-to-Residential conversion proposals. Please ensure that the applicable amenity space requirements are met. Should there be any deviation, zoning compliance will need to be verified and a Zoning By-Law Amendment or Minor Variance may be required:

Section 76:

1) Non-residential or mixed-use buildings with a principal office, school, place of worship or hotel use as of August 1, 2023, that are adapted, within the existing building envelope, to be residential or mixed-use buildings in zones other than IG, IH, IL and IP are deemed to comply with zoning, except for:

*a) The application of Table 137, where Columns III and IV do not apply to adaptations of an existing building in accordance with Subsection 76(1), and **amenity area must be provided, but may be configured in any combination of private or communal space, or in any location in accordance with Subsections 137(1) to (5).***

Table 137(5) of [Section 137](#) applies based on the “Mixed Use Building” proposal:

- **Total Amenity Area:** *6m² per dwelling unit, and 10% of the gross floor area of each rooming unit.*
 - Communal amenity area and layout requirements are superseded by Section 76.
7. Please review and confirm details related to site layout and building operational needs, such as parking, bike storage, loading, waste collection, mail access etc.
 8. In your next submission, please confirm if any exterior changes are proposed to the building façade, on the roof, or around the base of the building, such as grade changes and landscaping, as these changes would affect many of Staff’s comments and would initiate the need for a revised Study and Plan Identification List (SPIL).
 9. Please aim for a 1:1 bicycle parking space-to-dwelling unit ratio. Staff acknowledge that there is an existing exterior bicycle parking facility, but we strongly encourage internalizing all bicycle parking spaces within the building in secure storage units.
 10. Please consider adding more family sized units (2- or 3-bedroom dwelling units).

11. Please ensure an accessible design in terms of building access (entrance).

Process Comments:

12. Please refer to the [November 2023 Staff Report](#) for all pertinent information related to the City's [Office-to-Residential conversion program](#).
13. Please be advised of the proposed changes to the Ministry of Environment, Conservation and Parks regulation for Record of Site Condition (RSC) filing and the requirements for change of use proposals in taller buildings. Please track these changes as they may relate to your proposal. Staff will also be tracking the [website](#) and will confirm the RSC exemption again at the time of your next submission.
14. A Site Plan Control application is required based on our site plan control by-law. Application fees: **Standard – Site Plan Control application**.
15. Office-to-Residential conversion proposals are exempt from Community Benefit Charges (CBC) where there is no increase in gross floor area (g.f.a) proposed. Staff will confirm again that there is no increase in g.f.a at the time of the next submission.

Feel free to contact Eric Forhan, Planner II, for follow-up questions.

Urban Design

Submission Requirements:

16. An Urban Design Brief is not required unless exterior changes are made.
17. Additional 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. Elevations (only if the exterior is being changed, not including operable windows).

Comments on Preliminary Design:

18. I recommend a closer look at accessibility requirements under the O.B.C. and that the building will probably need to be made accessible, not just 15% of the residential units.
19. I recommend all bike storage/parking be provided within the building or within a controlled space outside the building, not facing the City's right of way.

Feel free to contact Christopher Moise, Urban Design, for follow-up questions.

Engineering

Comments:

20. It is the sole responsibility of the consultant to investigate the location of existing underground utilities in the proposed servicing area and submit a request for locates to avoid conflict(s).
21. Any easements on the subject site shall be identified on the plans and respected by any development proposal and shall adhere to the conditions identified in the easement agreement. The **legal survey plan** shall indicate any such easements accordingly.
22. Please refer to the SPIL provided for a detailed list of required plans and studies.
23. Provide the proposed Sanitary sewer release rate to confirm there is sufficient capacity in the City's sanitary sewer system.
24. Existing buildings service laterals require a CCTV inspection and report to ensure existing services to be re-used are in good working order and meet current minimum size requirements.
25. Please review Technical Bulletin ISTB-2018-02, maximum fire flow hydrant capacity is provided in Section 3 Table 1 of Appendix I. A hydrant coverage figure shall be provided and demonstrate there is adequate fire protection for the proposal. Two or more public hydrants are anticipated to be required to handle fire flow.
26. As per IWSTB-2024-05, Fire Demand calculations shall first be determined using the OBC Method. Only if this approach yields a fire flow of 9,000 L/min or greater shall the FUS method, as amended, and NFPA 1142 may be used to determine these requirements instead.
27. 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 OBC or FUS).
 - IV. Average daily demand: ____ l/s.
 - V. Maximum daily demand: ____ l/s.
 - VI. Maximum hourly daily demand: ____ l/s.
28. Phase One Environmental Site Assessment
 - a. A Phase I ESA is required to be completed in accordance with Ontario Regulation 153/04 in support of this development proposal to determine the

potential for site contamination. Depending on the Phase I recommendations a Phase II ESA may be required.

29. Grading and Drainage Plan

- a. Only required if changes to the existing grade or landscaping (hard and soft surface) are proposed.

30. Assessment of Adequacy of Public Services

- a. Provide an overview of the proposed development and its location.
- b. Analyze current public services and infrastructure.
- c. Calculate additional demand (if any) the new development will place on public services.
- d. Evaluate whether existing services can meet the new demand or if upgrades are needed.
- e. Provide recommendations for improvements or upgrades to public services to accommodate the new development.

31. Erosion and Sediment Control Plan

- a. Only required if ground is being broken or excavation and dewatering operations are required.

Feel free to contact Brett Hughes, Infrastructure Approvals Project Manager, for follow-up questions.

Transportation

Comments:

32. Right-of-way protection.

- a. See [Schedule C16 of the Official Plan](#).
- b. Any requests for exceptions to ROW protection requirements must be discussed with Transportation Planning and concurrence provided by Transportation Planning management.

33. The consultant is to address how they plan to enable and encourage travel by sustainable modes (i.e., to make walking, cycling, transit, carpooling and telework more convenient, accessible, safe, and comfortable). Please complete the City of Ottawa's *TDM Measures Checklist*.

34. The Owner shall be required to enter into maintenance and liability agreement for all pavers, plant and landscaping material placed in the City right-of-way and the Owner shall assume all maintenance and replacement responsibilities in perpetuity.
35. Bicycle parking spaces are required as per Section 111 of the Ottawa Comprehensive Zoning By-law. Bicycle parking spaces should be in safe, secure places near main entrances and preferably protected from the weather.
36. Should the property Owner wish to use a portion of the City's Road allowance for construction staging, prior to obtaining a building permit, the property Owner must obtain an approved Traffic Management Plan from the Manager, Traffic Management, Transportation Services Department. The city has the right for any reason to deny use of the Road Allowance and to amend the approved Traffic Management Plan as required.
37. The Project Manager is asked to contact the City of Ottawa Traffic Management Unit Pagamo Amade (pagamo.amade@ottawa.ca) to discuss the potential traffic impacts of the project.
38. If the proposed work will interfere with pedestrian access to/from a transit stop, the contractor must contact OC Transpo at least 10 working days prior to starting construction to arrange for the temporary relocation of the affected transit stop(s) as may be required.
39. Coordinate the temporary removal of on-street parking, (if required) through the City Traffic Management Inspector.
40. The Owner is responsible for identifying the type and location of existing signage that will be removed from within the Right-of-Way to accommodate the development site. The Owner is responsible for providing the General Manager with a detailed drawing identifying the type and position of the existing signs and roadway pavement markings along the site frontage.
41. Maintain local and emergency access at all times. Where access cannot be maintained the contractor must contact the City Traffic Management Inspector to discuss alternatives.

Feel free to contact Wally Dubyk, Transportation Project Manager, for follow-up questions.

Forestry

Comments:

42. No comments or submission requirement unless there are exterior changes and a landscaping plan is required.

Feel free to contact Mark Richardson, Planning Forester, for follow-up questions.

Parkland

Comments:

43. **Cash-in-lieu of Parkland (CILP) will apply** to the **net increase** in residential units or non-residential floor area, at the rate specified in the Parkland Dedication By-law No.2022-280 (as amended):
- a. For commercial uses, the requirement is: 2% of the gross land area.
 - b. For residential uses, the requirement is: 1ha per 1,000 net residential units, but shall not exceed an area equal to 10% of the gross land area.
 - d. Where land is developed for a mix of uses within a building, the conveyance requirement shall be as calculated using the applicable rates above, prorated according to the proportion of gross floor area allocated to each use.
 - e. The Cash-in-lieu of parkland value will be calculated using the appraised value of the land from the above calculation. For your reference, 40% of this amount is to be allocated to City-wide parkland funds, and 60% is to be allocated to Ward 14 parkland funds.
44. In order to determine the applicable CILP amount, please provide the following information with your Site Plan Control Application:
- a. Number of existing dwelling units
 - b. Number of proposed dwelling units
 - c. Total gross floor area of residential uses
 - d. Total gross floor area of commercial uses
 - e. Total gross floor area of other uses
45. This application may also qualify for a Ward 14 cash-in-lieu of conveyance of parkland reduction further to motion number PHC 2023-18/03, which was approved by Planning and Housing Committee on November 8, 2023 for Office to Residential Conversions in Ward 14. As a result, the portion of the funds to be allocated to the Ward 14 account may be reduced by 20 percent. Qualification for this revised amount is subject to the following:
- a. That a building permit for the project is issued within 6 months of SPC approval (date of issuance of delegated authority report), with possibility of a singular extension of 3 months.
 - b. That the downtown vacancy rate is above 10% as reported in the latest Ottawa Office market report by Colliers.

- c. The alternate rate must be paid prior to November 8, 2025, at which time the matter is to be reconsidered by Council.
46. Please note that there are exemptions to parkland dedication for certain land uses, including for affordable residential units per the definition in the *Development Charges Act*. To be eligible for this exemption, the units (whether rental or ownership units) must meet the following criteria:

- a. Affordable residential units must be rented or sold at or below thresholds determined by a Provincial Bulletin at the time of occupancy (see: <https://data.ontario.ca/dataset/affordable-residential-units-for-the-purposes-of-the-development-charges-act-1997-bulletin/resource/80424ab4-ca6e-4038-a706-06dc54923ae7>). The current Bulletin is effective as of June 1, 2024. It is anticipated that a new Bulletin will be released with updated thresholds in June 2025.

Rental Units	DC / Parkland / CBC Exemptions: Provincial Bulletin for the City of Ottawa (valid from June 1, 2024)
Bachelor	\$1,172
1-bedroom	\$1,415
2-bedroom	\$1,713
3-bedroom +	\$2,118

- b. For affordable rental units, annual rent increases are permitted, as long as rents remain at or below the threshold set out in the Provincial Bulletin. Upon tenancy turnover, the new rent must be at or below the threshold determined by the Bulletin in place at the time.
- c. Applicable units must be subject to an Agreement with the City of Ottawa that provides for them to remain affordable residential units (rental or ownership) for 25 years. This Agreement must be registered on title.
- d. Applicable units must be sold or rented on an arm's length basis.
- e. Such units may also be exempt from municipal Development Charges and community benefits charges.
47. Please note that these comments are preliminary and subject to change upon receipt of the development application and supporting documentation.
48. If you have any questions related to the Parkland Dedication By-law, please contact: marika.atfield@ottawa.ca.

Heritage

Comments:

49. 396 Cooper (263 Bank Street) is a non-contributing property designated under Part V of the *Ontario Heritage Act* (OHA), located in the Centretown Heritage Conservation District (HCD). As such, alterations must adhere to the [CENTRETOWN AND MINTO PARK HERITAGE CONSERVATION DISTRICT PLAN](#) and most exterior alterations require a heritage permit. While no exterior changes are proposed at present, if exterior changes are required for the change of use, please notify heritage staff to determine if a heritage permit is required.

Feel free to contact Taylor Quibell taylor.quibell@ottawa.ca , Heritage Planner, for follow-up questions.

Community issues

Comments:

50. Community comments will be issued separately, if received.

Other

51. The High Performance Development Standard (HPDS) is a collection of voluntary and required standards that raise the performance of new building projects to achieve sustainable and resilient design and will be applicable to Site Plan Control and Plan of Subdivision applications.

- a. The HPDS was passed by Council on April 13, 2022, but is not in effect at this time, as Council has referred the 2023 HPDS Update Report back to staff with the direction to bring forward an updated report to Committee at a later date. The timing of an updated report to Committee is unknown at this time, and updates will be shared when they are available.
- b. Please refer to the HPDS information at ottawa.ca/HPDS for more information.

52. 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

53. Standard - Site Plan Control application

- a. Additional information regarding fees related to planning applications can be found [here](#).

54. The attached **Study and Plan Identification List (SPIL)** 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.
- b. Please be advised that the provided **SPIL** is based on there being no exterior changes proposed at this time. A new **SPIL** would likely need to be required if there are exterior changes proposed in the next submission.

55. 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.

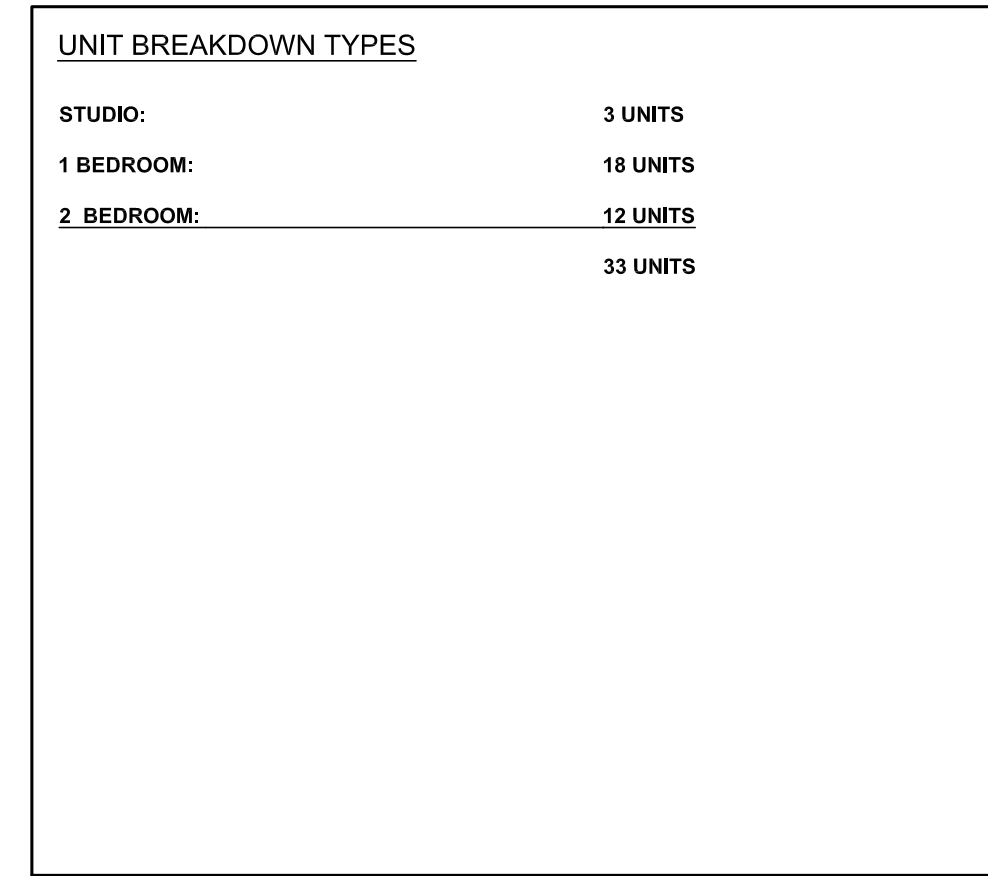
Sincerely,

Eric Forhan

Planner II, Development Review Central

Encl. Studies and Plans Identification List (SPIL)

- c.c. Jean-Charles Renaud, Planner III, Development Review Central
Christopher Moise, Urban Design, PDBS
Taylor Quibell, Heritage Planning, PDBS
Amy Whelan, Project Manager, Development Review Central
Brett Hughes, Project Manager, Development Review Central
Wally Dubyk, Transportation Project Manager, PDBS
Marika Atfield, Parks & Facilities Planning (PFP)
Mark Richardson, Forestry – Planning, Strategic Initiatives
Rod Price, Demarco Construction (applicant)



GENERAL NOTES:

1. REFER TO SURVEYOR'S REAL PROPERTY REPORT PART 1 PLAN OF LOTS 35 AND 36 (SOUTH COOPER STREET), REGISTERED PLAN 12281, CITY OF OTTAWA, SURVEYED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD, ONTARIO LAND SURVEYORS.

<u>ZONING:</u>		
1.0 ZONING DESIGNATIONS (Part 10):		
TM (H) (19) - TRADITIONAL MAINSTREET ZONE		
2.0 ZONING PROVISIONS:		
<u>TM H(19) - TRADITIONAL MAINSTREET ZONE:</u>		
	<u>REQUIRED</u>	<u>EXISTING</u>
MINIMUM LOT WIDTH (m):	NO MINIMUM	34.23
MINIMUM LOT AREA (m ²):	NO MINIMUM	1417.19
MAXIMUM FRONT YARD SETBACK (m):	2	0.044
MINIMUM REAR YARD SETBACK (ABUTTING RESIDENTIAL ZONE)(m):	7.5	18.030
MINIMUM INTERIOR SIDE YARD SETBACK (m):	NO MINIMUM	0.098
MINIMUM CORNER SIDE YARD SETBACK (m):	3	ON LOT LINE
MAXIMUM PRINCIPAL BUILDING HEIGHT (m):	19	15.24
MAXIMUM FLOOR SPACE INDEX :	NO MAXIMUM	N/A
MINIMUM LANDSCAPING ABUTTING A PARKING LOT (SECTION 110) (m):	3	EXISTING
MINIMUM LANDSCAPING ABUTTING A RESIDENTIAL ZONE (m):	3	EXISTING
MINIMUM LANDSCAPING ALL OTHER CASES (m):	0	EXISTING

3.0 PARKING (Section 101) :			
AREA Y ON SCHEDULE 1A, INNER URBAN MAINSTREETS			
Minimum Required:			
RETAIL:		NONE	
RESTAURANT		NONE	
<u>DWELLING UNITS:</u>		<u>NONE</u>	
TOTAL		NONE	
Provided:			
STANDARD SPACE :		11	
BARRIER-FREE:		0	
TOTAL		11	
4.0 BICYCLE PARKING (Section 111B):			
Minimum Required:	33	1 PER UNIT (CITY COMMENTS REQUEST)	
Provided:	34	17 STACKED BICYCLE SPACES (17 X 2) SEE DWG A100.	

Not required as per table 113A,	NOT PROVIDED
---------------------------------	--------------

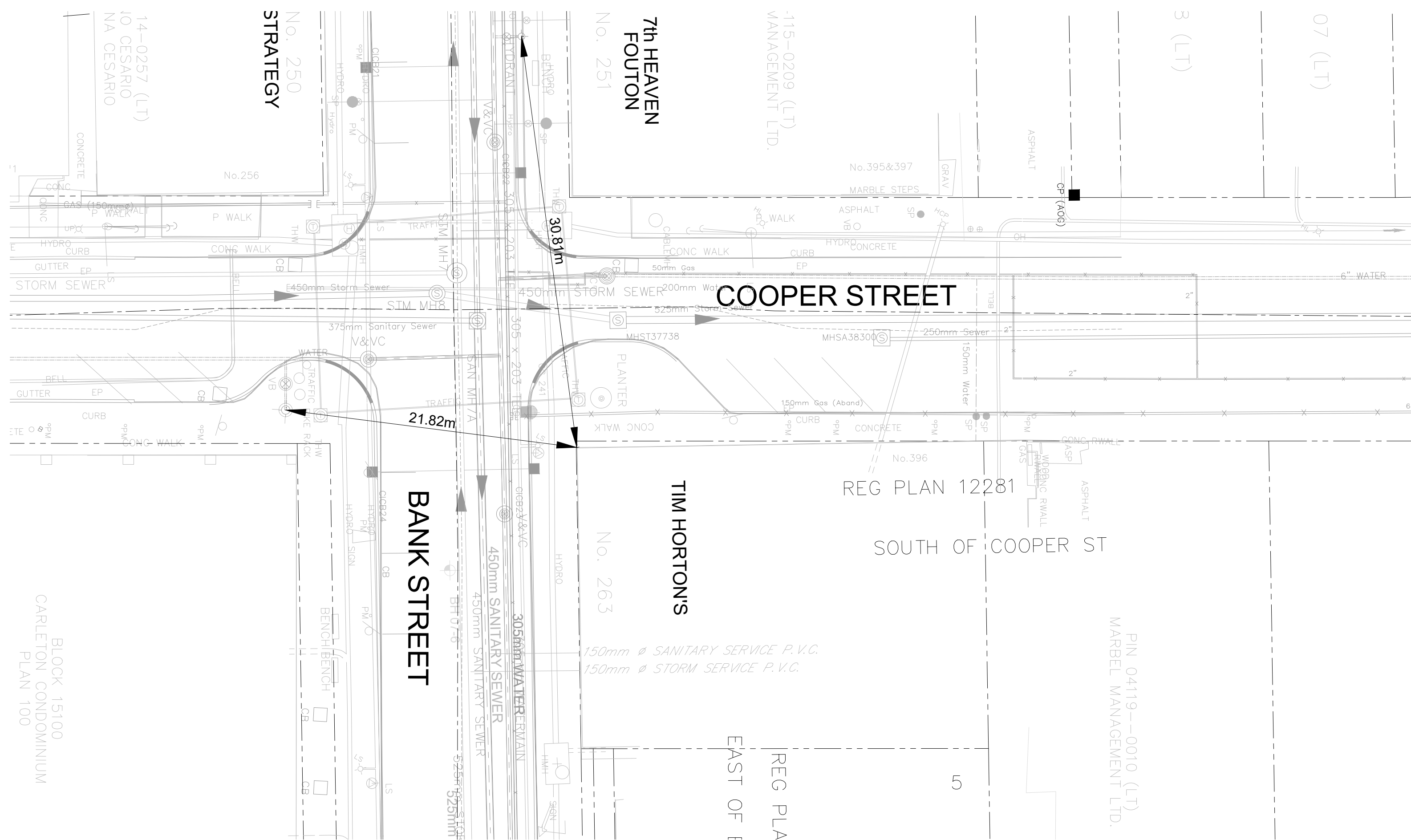
6.0 ACCESSIBLE PARKING PROVISION REQUIREMENTS
(Parking Bylaw 2017-2031, PART C SECTION 111):

Minimum Required:	1	TYPE A PARKING SPACE
Provided:	1	TYPE A PARKING SPACE

7.0 AMENITY AREA (SECTION 137)
(TABLE 137 - AMENITY AREA (5))

Minimum Required:	11 UNITS AT 6m² = 66 m² X 3 FLOORS =198 m²
Provided:	30 m² INTERIOR IN BICYCLE STORAGE RM 010
	<u>200 m² EXTERIOR</u>
TOTAL	230 m²

XXXX-XX-XXXX



Appendix B

NODE	RESIDENTIAL				NON-RESIDENTIAL (ICI)			AVERAGE DAILY DEMAND (l/s)			MAXIMUM DAILY DEMAND (l/s)			MAXIMUM HOURLY DEMAND (l/s)			FIRE DEMAND (l/min)
	APARTMENT (Avg)			POPULATION	OFFICE (ha)	COMM. (ha)	INSTIT. (ha)	RESIDENTIAL	ICI	TOTAL	RESIDENTIAL	ICI	TOTAL	RESIDENTIAL	ICI	TOTAL	
Proposed	33			59.40		0.073		0.19	0.02	0.21	0.48	0.03	0.51	1.06	0.06	1.12	11,000
Existing						0.284			0.08	0.08		0.15	0.15		0.27	0.27	11,000

ASSUMPTIONS							
POPULATION DENSITY		WATER DEMAND RATES		PEAKING FACTORS FOR POP. OF 501 TO 3000		FIRE DEMANDS	
Apartment - Avg	1.8 persons/unit	Residential	280 l/cap/day	Maximum Daily	Residential	2.5 x avg. day	Mixed-Use 11,000 l/min (183.3 l/s)
					ICI	1.5 x avg. day	
		Commercial	2,500 L/(1000m2)/day	Maximum Hourly	Residential	2.2 x max. day	
					ICI	1.8 x max. day	

STEP	Contents	Description	Adjustment Factor	Result	
1	Floor Area	Building (4-storey mixed-use)	Building Area	734.6 m2	
	Total Effective Floor Area		Number of Floors Total Area	4 floors 2938.4 m2	
2	Type of Construction	Type V Wood Frame 1.5 Type III Ordinary Construction 1.0 Type II Noncombustible Construction 0.8 Type I Fire Resistive Construction 0.6	Type III Ordinary Construction 1.0		
3	Required Fire Flow	RFF = 220C√A		12000 L/min	
4	Occupancy and Contents	Noncombustible Contents -25% Limited Combustible Contents -15% Combustible Contents 0% Free Burning Contents 15% Rapid Burning Contents 25%	Combustible Contents 0%	0 L/min	
	Fire Flow			12000 L/min	
5	Automatic Sprinkler Protection	Automatic Sprinkler Conforming to NFPA 13 -30% Standard Water Supply for both the system and Fire Department Hose Lines -10% Fully Supervised System -10%	Yes -30% Yes -10% Yes -10%	-3600 L/min -1200 L/min -1200 L/min	
	Fire Flow			-6000 L/min	
6	Exposure Adjustment	Based on Table 6 Exposure Adjustment Charges for Subject Building			
	North	Separation (m) 18.2 Length X Height Factor (m.storeys) 193.9 Construction Type Type III	With unprotected opening 10%	1200 L/min	
		South	Separation (m) 3.2 Length X Height Factor (m.storeys) 110.8 Construction Type Type III	Without unprotected opening 8%	960 L/min
			East	Separation (m) 18.1 Length X Height Factor (m.storeys) 198 Construction Type Type III	With unprotected opening 10%
	West			Separation (m) 19.2 Length X Height Factor (m.storeys) 270 Construction Type Type III	With unprotected opening 10%
		Fire Flow			
		7	Total Required Fire Flow		
		Rounded to Nearest 1000 L/min		11000 L/min	

Notes 1. Fire flow calculation are based on Fire Underwriters Survey version 2020.

Labadie, Sam

From: Hughes, Brett <brett.hughes@ottawa.ca>
Sent: June 6, 2025 9:25 AM
To: Labadie, Sam
Cc: Whelan, Amy; Rohan, Fayaz
Subject: RE: 396 Cooper Street - Boundary Condition Request
Attachments: 396 Cooper Street May 2025.pdf

Arcadis Warning: Exercise caution with email messages from external sources such as this message. Always verify the sender and avoid clicking on links or scanning QR codes unless certain of their authenticity.

Sam,

The following are boundary conditions, HGL, for hydraulic analysis at 396 Cooper Street (zone 1W) assumed to be connected to the 203mm watermain on Cooper Streeton. (see attached PDF for location).

Minimum HGL : 106.9 m

Maximum HGL : 115.1 m

Max Day + Fire Flow (183.33 L/s) : 103.6 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. 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.

"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."

Regards,

Brett Hughes BEng.

Project Manager, Infrastructure

Development Review Central

PLANNING, DEVELOPMENT & BUILDING SERVICES (PDBS)

110 Laurier Ave West | 4th Floor | Ottawa, ON | K1P 1J1

City of Ottawa | Ville d'Ottawa

☎ 613.580.2424 ext./poste 32541

From: Labadie, Sam <samantha.labadie@arcadis.com>
Sent: May 27, 2025 10:11 AM
To: Hughes, Brett <brett.hughes@ottawa.ca>
Subject: RE: 396 Cooper Street - Boundary Condition Request

CAUTION: This email originated from an External Sender. Please do not click links or open attachments unless you recognize the source.

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.

Hi Brett,

As discussed, here is the revised fire flow with the correct sprinkler adjustment and a revised Location sketch with distances. The water demands are attached for completeness.

Thank you,

Sam Labadie P.Eng
Civil Engineer
Arcadis Professional Services (Canada) Inc.
Suite 500, 333 Preston Street | Ottawa | ON | K1S 5N4 | Canada
C: +1 613 899 5717
www.arcadis.com



From: Labadie, Sam
Sent: May 26, 2025 1:54 PM
To: Hughes, Brett <brett.hughes@ottawa.ca>
Subject: RE: 396 Cooper Street - Boundary Condition Request

Hi Brett,

Just gave you a call back, sorry for the phone tag. I can be free for a teams chat either today at 4 or anytime tomorrow before 1pm.

I can definitely add the separation distances to the location sketch, haven't had that request before. I'll wait to send those back until we clear up the rest of your questions.

Thanks,

Sam Labadie P.Eng
Civil Engineer
Arcadis Professional Services (Canada) Inc.
Suite 500, 333 Preston Street | Ottawa | ON | K1S 5N4 | Canada
C: +1 613 899 5717
www.arcadis.com





From: Labadie, Sam
Sent: May 22, 2025 6:09 PM
To: Hughes, Brett <brett.hughes@ottawa.ca>
Subject: 396 Cooper Street - Boundary Condition Request

Hi Brett,

We are the civil engineers for the proposed Site Plan Control Application at 396 Cooper Street. We are requesting boundary conditions for a mixed-use four-storey building. It is proposed that the existing building and water service remain, the site plan changes are to be interior to the building.

A copy of the anticipated water demands and fireflows are attached and summarized as follows;

Avg Day = 0.23 l/s
Max day = 0.56 l/s
Peak Hour = 1.21 l/s
Fireflow = 12,000 L/min

Thank you,

Sam Labadie P.Eng
Civil Engineer
Arcadis Professional Services (Canada) Inc.
Suite 500, 333 Preston Street | Ottawa | ON | K1S 5N4 | Canada
C: +1 613 899 5717
www.arcadis.com



This email and any files transmitted with it are the property of Arcadis and its affiliates. All rights, including without limitation copyright, are reserved. This email contains information that may be confidential and may also be privileged. It is for the exclusive use of the intended recipient(s). If you are not an intended recipient, please note that any form of distribution, copying or use of this communication or the information in it is strictly prohibited and may be unlawful. If you have received this communication in error, please return it to the sender and then delete the email and destroy any copies of it. While reasonable precautions have been taken to ensure that no software or viruses are present in our emails, we cannot guarantee that this email or any attachment is virus free or has not been intercepted or changed. Any opinions or other information in this email that do not relate to the official business of Arcadis are neither given nor endorsed by it.

This e-mail originates from the City of Ottawa e-mail system. Any distribution, use or copying of this e-mail or the information it contains by other than the intended recipient(s) is unauthorized. Thank you.

Le présent courriel a été expédié par le système de courriels de la Ville d'Ottawa. Toute distribution, utilisation ou reproduction du courriel ou des renseignements qui s'y trouvent par une personne autre que son destinataire prévu est interdite. Je vous remercie de votre collaboration.

Labadie, Sam

From: Lisa Burke <lburke@huntingtonproperties.ca>
Sent: May 13, 2025 3:12 PM
To: Steve Lajeunesse; Labadie, Sam
Cc: Jan Veer; Rod Price; Brule, Terry; Craig Whitten; Mathieu Desjardins
Subject: RE: 396 Cooper Street - Site Plan Kick-off - Sprinkler Information

Arcadis Warning: Exercise caution with email messages from external sources such as this message. Always verify the sender and avoid clicking on links or scanning QR codes unless certain of their authenticity.

Good afternoon all,
Goodkey provided the information below regarding Sam's request for information. Please let me know if you need further details.

- 1. At the beginning of this project, Craig advised that the building would need to be sprinklered.. I'm assuming this came from Steve as this determination would typically be made by the architect depending on the building classification from their code matrix analysis. If this is correct (might be worth double checking with the architect), then yes the automatic sprinkler system would be provided in accordance with NFPA-13.*
- 2. Assuming a sprinkler system is required, NFPA-13 would call for about 600 usgpm (0.2 usgpm/sq.ft. for sprinklers over 1500 sq.ft. design area, plus 250 usgpm inside/outside hose allowance, plus ~10% safety factor) based on the highest hazard occupancy being ordinary hazard group 2 for the retail units.*
- 3. The building has an existing fire alarm system, so our assumption is that the fire alarm system will remain (I can't see why we would remove it, but this would ultimately be determined by the architect from their code matrix review). Assuming the fire alarm system remains, the new sprinkler system would be connected to it and fully supervised (i.e. for monitoring control valves and water flow).*

Lisa Burke

Development Manager
Huntington Properties
1306 Wellington Street West Suite 200
Ottawa, ON K1Y 3B2
lburke@huntingtonproperties.ca
Office: 613-592-1818 ext. 27
Cell: 613-858-0621

From: Steve Lajeunesse <steve@l5impact.com>
Sent: May 7, 2025 11:47 AM
To: Labadie, Sam <samantha.labadie@arcadis.com>
Cc: Lisa Burke <lburke@huntingtonproperties.ca>; Jan Veer <jan@veerarch.com>; Rod Price

<rod@demarcoconstruction.ca>; Brule, Terry <terry.brule@arcadis.com>; Craig Whitten
<cwhitten@huntingtonproperties.ca>; Mathieu Desjardins <mdesjardins@huntingtonproperties.ca>
Subject: Re: 396 Cooper Street - Site Plan Kick-off - Site Plan Drawing Update Needed

Good morning Sam, see below response to your questions.

Building Area: **734.6 Square meters**

Number of Floors: **Basement + 4 Floors**

Construction Type: **Ordinary Construction (Type III)**

Sprinkler specifications: **Lisa has reached out to mechanical for a response.**

Thanks,

Steve Lajeunesse

T: 613.322.3776 | E: steve@L5impact.com

On Tue, May 6, 2025 at 2:47 PM Labadie, Sam <samantha.labadie@arcadis.com> wrote:

Hi Lisa,

As mentioned, we are looking for the following building info for fire flow calculations:

- Building floor area
- Number of floors
- Construction type (wood frame, ordinary, non-combustible, or fire-resistive per pages 21-22 on the attached)
- Proposed sprinkler specifications (referencing pages 28-29 on the attached)
 - Automatic sprinklers in accordance with NFPA13?
 - Standard water supply for both system and fire dept hose lines?
 - Fully supervised system?

Thanks,

Sam Labadie P.Eng

Civil Engineer

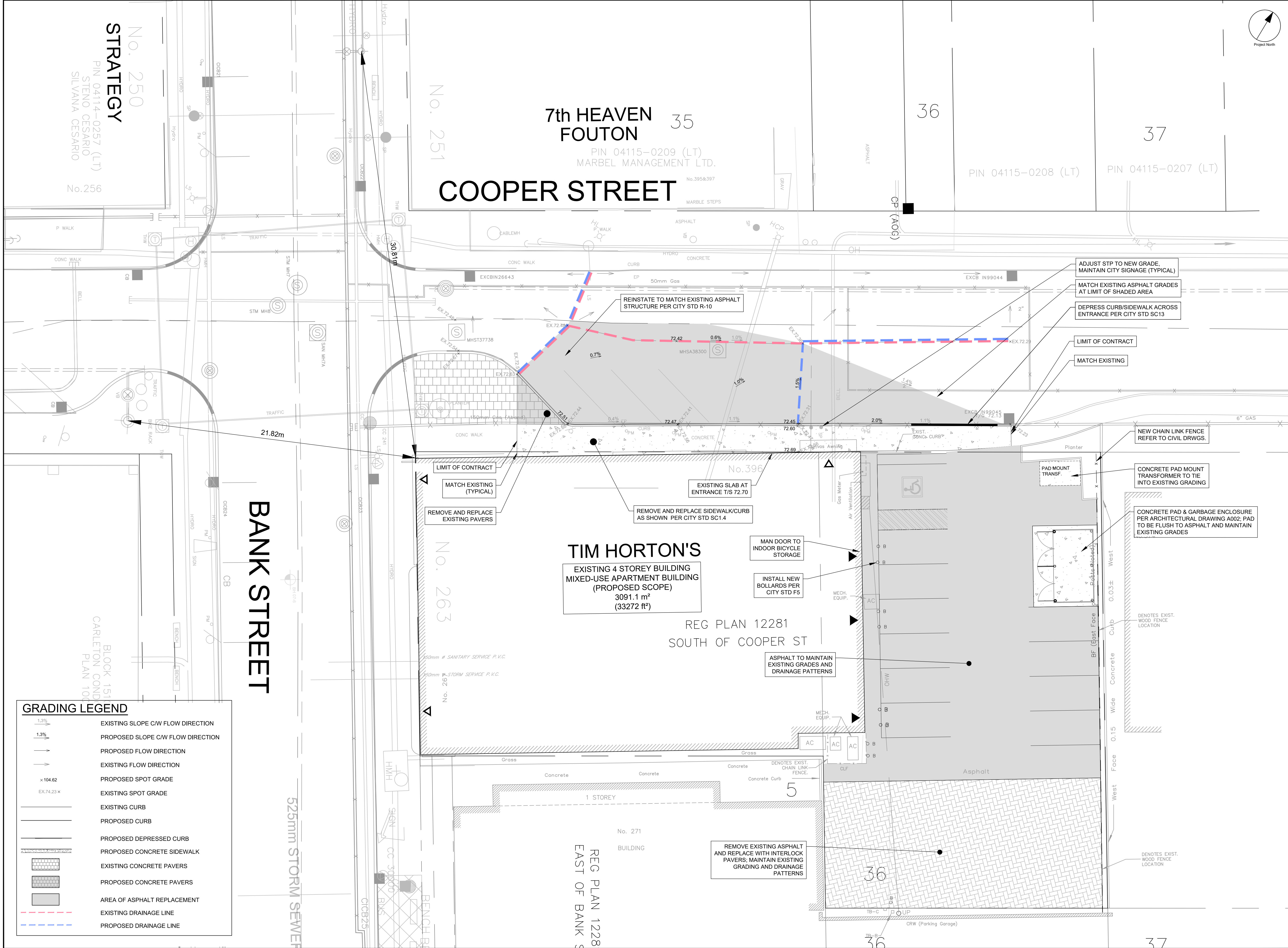
Arcadis Professional Services (Canada) Inc.

Suite 500, 333 Preston Street | Ottawa | ON | K1S 5N4 | Canada

C: +1 613 899 5717

www.arcadis.com

Appendix C



CLIENT

HUNTINGTON PROPERTIES

200-1306 WELLINGTON STREET WEST
OTTAWA, ON K1Y 3B2

COPYRIGHT

This drawing has been prepared solely for the intended use, and any reproduction or distribution for any purpose other than authorized by Arcadis is prohibited. Written dimensions shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job, and Arcadis shall be informed of any variations from the dimensions and conditions shown on the drawing. Shop drawings shall be submitted to Arcadis for general conformance before proceeding with fabrication.

Arcadis Professional Services (Canada) Inc.
a unit of Arcadis

ISSUES

No.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	2025/08/15
2	REVISED AS PER NEW SITE PLAN	2025/08/15

NOT FOR CONSTRUCTION

SITE

KEY PLAN

CONSULTANTS

SEAL

LI

CERTIFIED PROFESSIONAL ENGINEER

S. E. LABADIE

100214983

2025/08/15

PROVINCE OF ONTARIO

PROJECT

396 COOPER STREET

PROJECT NO:
EP - 2025 - 008

DRAWN BY:
D.P.S.

PROJECT MGR:
S.E.L.

CHECKED BY:
S.E.L.

APPROVED BY:
S.E.L.

SHEET TITLE

SITE GRADING PLAN
SIDEWALK ADJUSTMENTS

SHEET NUMBER

C-200

ISSUE

2