JLR No.: 33647-001
Revision: 0

December 23, 2025

Prepared for:

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Assessment of Adequacy of Public Services (AAPS)

2701 Page Road

J.L.Richards

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List of Appendices

1.0 Introduction

1.1 Background

In 2025, J.L. Richards and Associates Limited (JLR) was retained by the Owner of 2701 Page Road to prepare an Assessment of Adequacy of Public Services (AAPS) Report in support of a Zoning By-law Amendment. The Owner seeks to rezone and sever the subject property to facilitate the development of 12 townhouse dwellings thus the proposed development is intended to proceed in two phases:

i) The property, currently zoned DR – Development Reserve, is proposed to be rezoned to an appropriate R3 – Residential Third Density Zone.

ii) Following approval of the rezoning application, a consent application will be submitted to sever the property into two blocks, each accommodating six townhouse units, resulting in a total of 12 townhouse lots.

This AAPS Report has been prepared to outline the design objectives and criteria, servicing constraints and strategies for developing the subject site with water, wastewater, storm and stormwater management services in accordance with the City of Ottawa Design Guidelines and the criteria outlined in the pre-consultation meeting (refer to Appendix A).

In addition, a copy of the Conceptual Site Plan, the Legal Plan and the Topographical Survey has been included in Appendix A.

1.2 Site Description and Proposed Development

The subject property is a 0.23 ha parcel located at 2701 Page Road within the City of Ottawa's Official Plan. The site is bounded by Page Road to the west, Trailsedge Way to the north, and Contour Street to the east. It is currently occupied by an existing residential dwelling, which is proposed to be demolished to accommodate the redevelopment. The proposed development consists of two townhouse blocks, each containing six units, for a total of 12 residential units. The legal description of the subject property and the Conceptual Site Plan are provided in Appendix A.

A topographical survey was prepared by Annis, O'Sullivan, Vollebekk Ltd. (AOV) on June 12, 2025. Based on a review of the survey, the majority of the property appears to slope towards the existing roadside ditches to the east, with an ultimate outlet at the culvert located at the intersection of Contour Street and Trailsedge Way. A portion of the western area of the property slopes toward Page Road.

1.3 Proposed Servicing and Existing Infrastructure

The proposed townhouse development will be serviced by municipal townhouse services fronting Trailsedge Way. To confirm servicing availability, a review of the existing civil drawings along Trailsedge Way was undertaken and is included in Appendix B.

Based on this review, the following municipal infrastructure has been identified along Trailsedge Way:

- 375 mm diameter storm sewer
- 200 mm diameter watermain
- 200 mm diameter sanitary sewer

In addition to these municipal services, an existing 600 mm diameter corrugated steel pipe (CSP) culvert currently conveys the majority of stormwater runoff from the subject property and discharges to Pond 1. Stormwater runoff from the western portion of the site fronting Page Road is tributary to existing catch basin maintenance hole (CBMH) 133 and is conveyed via a 600 mm diameter storm sewer that also ultimately discharges to Pond 1. References to the existing servicing infrastructure are provided in Appendix B.

1.4 Consultation and Permits

A pre-consultation meeting was held on July 24, 2025, to discuss the planning process, design criteria, and servicing constraints. A copy of the pre-consultation meeting notes been provided in Appendix A.

2.0 Water Servicing

2.1 Water Supply Design Criteria and Proposed Water Servicing

A Hydraulic Network Analysis (HNA) was carried out for the proposed site to confirm that the existing watermain and hydrants can provide adequate supply while complying with both the Ottawa Design Guidelines for Water Distribution (July 2010) and Technical Bulletins ISDTB-2014-02, ISTB-2018-02 and ISDTB-2021-03.

Section 4.2.2 of the Water Design Guidelines requires that all new development additions to the public water distribution system be designed such that the minimum and maximum water pressure, as well as the fire flow rates, conform to the following:

- Under maximum hourly demand conditions (peak hour), the pressures shall not be less than 276 kPa
- During periods of maximum day and fire flow demand, the residual pressure at any point in the distribution system shall not be less than 140 kPa (20 psi)
- In accordance with the Ontario Building Code in areas that may be occupied, the static pressure at any fixture shall not exceed 552 kPa (80 psi)
- The maximum pressure at any point in the distribution system in unoccupied areas shall not exceed 689 kPa (100 psi); and
- Feedermains, which have been provided primarily for the purpose of redundancy, shall meet, at a minimum, the basic day plus fire flow demand.

Water will be supplied by extending typical townhouse services to the existing 200 mm diameter watermain on Trailsedge Way (refer to Appendix B for existing drawings) meanwhile fire protection will be provided by the existing hydrants within the area.

2.2 Domestic Water Demands and Required Fire Flow

Water demand calculations were completed for the proposed development which consists of 12 townhouse units, as shown in the Conceptual Site Plan (see Appendix A). The total population is estimated at 33 persons, based on a density of 2.7 persons per unit in accordance with the City of Ottawa Design Guidelines.

Residential water consumption rates for average day, maximum day, and peak hour demands were determined by applying Table 4-2 of the City of Ottawa Design Guidelines and Table 3-3 of the Ministry of the Environment, Conservation and Parks (MECP) guidelines, as the total population is fewer than 500 persons. Table 1 summarizes the water consumption rates and peaking factors applied in the hydraulic network analysis (HNA). Detailed calculation sheets are provided in Appendix C.

Table 1: Water Demands

Average Day Demand (L/s)	Max Day Peaking Factor	Maximum Day Demand (L/s)	Peak Hour Peaking Factor	Peak Hour Demand (L/s)
0.11	9.39 x ADD	1.00	14.13 x ADD	1.51

The City has specified that the Fire Underwriters Survey (FUS) method shall be used for any public or private site where new fire hydrants are being designed. Specifically, the required fire flow (RFF) for each structure was calculated in accordance with TB-2018-02. The RFF was calculated as 217 L/s, refer to Appendix C for the detailed RFF calculations.

2.3 Boundary Condition Request and Headloss Calculations

Hydraulic boundary conditions were provided by the City of Ottawa at Trailsedge Way, at the proposed locations of the townhouse service connections, for the demand scenarios and fire flow requirements outlined in Section 2.2. In addition to the required fire flow boundary condition of 217 L/s, an alternate boundary condition of 167 L/s was requested, as this value represents the City cap for townhouse developments in accordance with ISDTB 2018-02. The applicable boundary conditions are summarized in the table below (refer to Appendix C for email correspondence).

Table 2: Water Boundary Conditions

Water Demand Scenario	HGL at Trailsedge Way (m)	Pressure at Trailsedge Way (psi)	Pressure at Trailsedge Way (kPa)
Max HGL	130.8	64.3	443
Peak Hour	127.8	60.0	414
Max Day + Fire Flow (RFF = 167 L/s)	122.9	53.0	365
Max Day + Fire Flow (RFF = 217 L/s)	119.2	47.8	330

The hydraulic boundary conditions provided by the City at Trailsedge Way are considered representative of the hydraulic grade line and resulting pressures at the proposed service connections, with any headlosses along the short laterals expected to be negligible. Furthermore, as this report is conceptual in nature and intended to demonstrate the overall feasibility and servicing adequacy of the site, detailed hydraulic calculations are not required at this stage of the design. As such, the boundary condition results indicate that sufficient system pressure is available under maximum HGL and peak hour demand scenarios, as well as under the maximum day plus fire flow scenario.

2.4 Fire Protection

The total RFF for the site, based on the FUS is 217 L/s. A review of existing hydrants using GeoOttawa (see figure below) indicates the following:

- **West townhouse block:** The hydrant on Trailsedge Way directly fronting the block provides 95 L/s. In addition, there are three additional hydrants on Page Road: one hydrant at 95 L/s and two hydrants at 63 L/s each. The total aggregate flow is 316 L/s.
- **East townhouse block:** The same Trailsedge Way hydrant contributes to this block at 95 L/s, along with two hydrants on Contour Street (95 L/s and 63 L/s) and a second Trailsedge Way hydrant (63 L/s), for an aggregate total of 316 L/s.

In both cases, the available fire flow exceeds the required 217 L/s, confirming that the site has adequate fire protection capacity.

Figure 1: Hydrant Locations

2.5 Summary and Conclusion

Based on the results presented above, the existing system is expected to provide sufficient pressure to service both townhouse blocks, and the existing hydrant coverage is adequate to meet the required fire flow for the proposed redevelopment.

3.0 Wastewater Servicing

3.1 Design Criteria and Proposed Sanitary Servicing

The sanitary sewer system within the development is designed in accordance with the Ottawa Sewer Design Guidelines and subsequent technical bulletins. The design parameters are applied under two scenarios as per ISTB Technical Bulletin 2018-01. The key design parameters have been summarized in the table below.

Table 3: Wastewater Key Design Parameters

Design Parameter	Design Value
Average Townhouse Density	2.7 ppu
Residential Average Flow	280 L/Cap/Day
Residential Peaking Factor	Harmon's Formula
Harmon's Correction Factor (K)	0.8
Infiltration Allowance	0.33 L/s/ha

Wastewater for the townhouse blocks will be serviced by extending typical townhouse services to the existing 200 mm diameter sanitary sewer on Trailsedge Way (refer to Appendix B for existing drawings).

3.2 Design Flows and Downstream Capacity

Wastewater flows for the proposed development were calculated in accordance with the design criteria outlined in Table 3, with detailed calculations provided in Appendix D. The total design peak sanitary flow for the site is estimated at 0.46 L/s. The calculated sanitary design flow was submitted to the City for review of downstream system capacity. The City has confirmed that there are no apparent concerns associated with the addition of 0.46 L/s of sanitary flow to the existing system (refer to Appendix D for correspondence).

3.3 Summary and Conclusion

Based on the results presented above, it is expected that the existing 200 mm diameter sanitary sewer on Trailsdege Way can provide wastewater servicing for the proposed development.

4.0 Storm Servicing and Stormwater Management

4.1 Background Studies and Existing Infrastructure

In 1993, the City of Ottawa (formerly the City of Gloucester) completed the East Urban Community (EUC) Master Drainage Plan, which established the stormwater management framework for the area, including a system of three stormwater management ponds. Pond 1 was located within the Mud Creek valley upstream of Page Road, while Ponds 2 and 3 were situated southeast and southwest of the study area, respectively.

In 2005, Stantec prepared the Gloucester East Urban Community (EUC) Infrastructure Servicing Study Update, which provided additional stormwater analysis to the study area. This study identified the Page Road Subdivision, including the subject lands at 2701 Page Road, as tributary to Pond 1 with an allowable release rate of 85 L/s/ha. Following this design brief, Pond 1 was constructed in 2010.

Subsequently, in 2011, Stantec completed the Page Road Subdivision Gloucester EUC, City of Ottawa Stormwater Management Report, which advanced the detailed stormwater design for the subdivision which includes stormwater strategies applicable to the subject property. The report identified that the lands at 2701 Page Road were approximately 0.7 m lower than the surrounding proposed Page Road subdivision. As a result, a culvert was installed at the intersection of Trailsedge Way and Contour Street to capture and convey the 100-year storm event from the subject property across Trailsedge Way to EUC Pond 1.

In 2015, David Schaeffer Engineering Limited (DSEL) prepared a Design Brief for the Trailsedge West Subdivision on behalf of Richcraft Homes. This brief noted that previous studies had identified the need for modifications and expansion to Pond 1 in order to support both the Trailsedge West Subdivision and the Brian Coburn Boulevard Extension.

Simultaneously in 2015, Robinson Consultants prepared the Brian Coburn New Road Construction – Pond 1 Outlet Storm Sewer Design Brief in which storm sewer infrastructure was designed for the extension of Brian Coburn Boulevard from Mer Bleue Road to Navan Road, including the installation of oil-grit separators at Pond 1. As part of this work, the subject lands at 2701 Page Road were accounted for as tributary to a 600 mm diameter storm sewer on Page Road, which crosses Brian Coburn Boulevard and discharges directly to the main cell of Pond 1.

As noted in Section 1, the following stormwater infrastructure has been identified adjacent to the site (refer to Appendix B for drawings):

- 375 mm diameter storm sewer on Trailsedge Way
- 600 mm diameter CSP culvert at the intersection of Trailsedge Way and Contour Street
- 600 mm diameter storm sewer on Page Road.

4.2 Design Criteria

This AAPS Report has been prepared based on discussions held during the pre-consultation meeting and in accordance with the storm and stormwater management criteria outlined in the City of Ottawa 2012 Sewer Design Guidelines (OSDG) and the more recent Technical Bulletin PIEDTB-2016-01 (dated September 6, 2016). For the purposes of this section, these documents

are collectively referred to as the Design Guidelines. A summary of the key storm and stormwater management criteria is provided below.

- Storm servicing and stormwater management in accordance with the approved studies identified in Section 4.1.
- Runoff coefficients (C-Factors) are calculated based on the ratio of pervious and impervious surfaces as depicted on the purposed conceptual site plan;
- Storm event peak flows are calculated using the Rational Method and using the regressions derived from the Intesity-Duration-Frequency (IDF) equations as per the Design Guidelines
- Peak flows are estimated based on an inlet time of ten minutes as per the Technical Bulletin ISDTB-2012-4.
- Quality control will be accommodated by Pond 1 to meet an MECP Enhanced Level of Protection (80% TSS removal)
- Provide freeboard to the underside of footing (USF) of 300 mm where weeping tile connections are present
- Provide measures to ensure that site preparation and construction is in accordance with the current Best Management Practices for Erosion and Sediment Control.

4.3 Allowable Release Rates and Servicing Strategies

4.3.1 Allowable Release Rates

Storm servicing and stormwater management for the subject property will be designed to limit the post-development 1:100 year peak flow to the aggregate allowable release rates established by the applicable stormwater criteria. The allowable peak flows are summarized below, with supporting documentation provided in Appendix E.

- As documented in the City of Ottawa Stormwater Management Report for the Page Road Subdivision (Stantec, 2011), the existing culvert located at Trailsedge Way and Contour Street was designed to accommodate an allowable peak flow of 87 L/s. Furthermore, the culvert consists of a 600 mm diameter pipe at a slope of 0.5%, providing an estimated capacity of approximately 460 L/s.

- Although the Trailsedge storm sewer design presented in the Page Road Subdivision report (Stantec, 2011) does not explicitly include frontage contributions from the subject property, the 375 mm diameter sewer between MH108 and MH107 demonstrates an available capacity of approximately 59%, corresponding to 64.1 L/s. Furthermore, downstream of MH107, the storm sewer system transitions to trunk 750 mm diameter sewers with substantial residual capacity.

- As outlined in the Brian Coburn New Road Construction – Pond 1 Outlet Storm Sewer Design Brief (Robinson Consultants, 2015), drainage from the subject property at 2701 Page Road was included in the design of the 600 mm diameter storm sewer on Page Road. The contributing drainage area was assigned a runoff coefficient of 0.55, with a 5-year capture rate in the sewer system. Application of the Rational Method for a 5-year design storm, based on a site area of 0.23 ha and a time of concentration of 10 minutes, results in a peak flow of 36.6 L/s. Furthermore, the design sheets for the sewers on Page Road confirm that additional capacity is available within the downstream sewer network.

- Stormwater quality control will be provided via Pond 1, which is designed to meet MECP Enhanced Level of Protection, achieving a minimum of 80% total suspended solids (TSS) removal.

To further assess the allowable peak flows, pre-development flow rates for a 5-year storm event were calculated based on existing site conditions and corresponding runoff coefficients. The table below summarizes the estimated pre-development flows for the site. Detailed calculations are provided in Appendix E.

Table 4: Pre-Development Flows (5-Year Storm Event)

To Page Road	To Ex. Culvert on Trailsedge Way and Contour Street
6.94 L/s	21.1 L/s

4.3.2 Servicing Strategies

To satisfy the storm servicing and stormwater management requirements established by the approved studies and applicable design criteria noted above, the following servicing approach is proposed:

- The property will be raised to achieve the required freeboard above the street spill points and the existing storm sewer on Trailsedge Way. Unit grading has been conceptually set to align with the existing grades of the units located across the street and the geotechnical recommendations provided for the site.

- During the 1:100-year storm event, runoff from the front yards of the proposed dwellings will be captured and conveyed via the existing storm sewer system on Trailsedge Way.

- During the 1:100-year storm event, runoff from the rear yards of the proposed dwellings will be split, with a portion directed to the existing storm sewer on Page Road and the remainder conveyed to the culvert at the intersection of Trailsedge Way and Contour Street.

- Stormwater quality control will be provided via Pond 1, which is designed to meet MECP Enhanced Level of Protection, achieving a minimum of 80% total suspended solids (TSS) removal.

Post-development flows for the site were calculated using the Rational Method for a 100-year storm event. Detailed calculations are provided in Appendix E and summarized in the table below. The front yard 100-year peak flow was calculated as 36 L/s. Based on a review of the existing 375 mm storm sewer on Trailsedge Way and the downstream trunk sewers, adequate capacity is available to accommodate this flow.

The rear yard 100-year peak flow is calculated as 32 L/s. This flow will be divided between the 600 mm diameter storm sewer on Page Road and the existing 600 mm diameter culvert at the

intersection of Trailsedge Way and Contour Street. If the flow is assumed to be split evenly with each townhouse block tributary to each outlet respectively, both outlets appear to have sufficient capacity. During detailed design, the distribution of flow will be optimized to ensure efficient use of available capacity in both outlets.

Table 5: Post-Development Flows (100-Year Storm Event)

Front Yard To Ex. 375 mm Sewer on Trailsedge Way	Rear Yard Split Between Ex. 600 mm Sewer on Page Road and Ex. 600 mm Culvert on Trailsedge Way / Contour Street
36 L/s	32 L/s

4.4 Summary and Conclusion

Based on the results presented above, it is expected that sufficient capacity existing in the surrounding municipal storm infrastructure for the proposed development.

5.0 Erosion and Sedimentation Control

Erosion and sediment control measures, as outlined in the Ontario Ministry of Natural Resources (MNR) Guidelines on Erosion and Sediment Control for Urban Construction Sites, will be implemented to trap sediment on site.

- Supply and installation of a silt fence barrier as required, as per OPSD 219.110.
- Supply and installation of siltsack or sentinel CB inserts between the frame and cover of catch basins and maintenance holes adjacent to the project area during construction, to prevent sediment from entering the sewer system.
- Stockpiling of material during construction is to be located along flat areas away from drainage paths. For material placed on sloped areas, stockpiles are to be enclosed with a silt fence to protect watercourses.
- All catch basins are to be equipped with sumps, inspected frequently, and cleaned as required.
- Temporary ICDs are to be placed blocking part of the sewer pipe in the connecting storm maintenance holes to eliminate construction debris from entering the existing storm sewer system. The ICDs are to be removed after the proposed storm sewers have been fully cleaned.

The proposed removal and reinstatement measures as well as the erosion control measures shall conform to the following documents:

- "Guidelines on Erosion and Sediment Control for Urban Construction Sites" published by Ontario Ministries of Natural Resources, Environment, Municipal Affairs, and Transportation & Communication, Association of Construction Authorities of Ontario and Urban Development Institute, Ontario, May 1987.
- "MTO Drainage Manual", Chapter F: "Erosion of Materials and Sediment Control", Ministry of Transportation & Communications, 1985.
- "Erosion and Sediment Control" Training Manual by Ministry of Environment, Spring 1998.
- Applicable Regulations and Guidelines of the Ministry of Natural Resources.

This report has been prepared by J.L. Richards & Associates Limited for the Owner's exclusive use. Its discussions and conclusions are summary in nature and cannot properly be used, interpreted or extended to other purposes without a detailed understanding and discussions with the client as to its mandated purpose, scope and limitations. This report is based on information, drawings, data, or reports provided by the named client, its agents, and certain other suppliers or third parties, as applicable, and relies upon the accuracy and completeness of such information. Any inaccuracy or omissions in information provided, or changes to applications, designs, or materials may have a significant impact on the accuracy, reliability, findings, or conclusions of this report.

This report was prepared for the sole benefit and use of the named client and may not be used or relied on by any other party without the express written consent of J.L. Richards & Associates Limited, and anyone intending to rely upon this report is advised to contact J.L. Richards & Associates Limited in order to obtain permission and to ensure that the report is suitable for their purpose.

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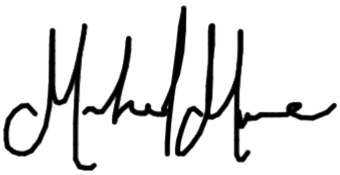
Prepared by:



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Appendix A

Conceptual Site Plan, Surveys, and Pre-Consultation Meeting Notes

Overall Site Statistics
Lot Area 2260m2
Lot Frontage 99.47m

Current Zoning DR (Development Reserve) Zone to be changed to R3Z (Residential Third Density) Zone

Description	Requirements/Permitted	Provided/Proposed
Principal Dwelling Type	Townhouse	Townhouse
Minimum Lot Width (m)	6	7.4
Minimum Lot Area (m2)	150	169
Maximum Building Height (m)	11	11
Minimum Front Yard Setback (m)	3	3
Minimum Corner Side Yard Setback (m)	3	2.75
Minimum Rear Yard Setback (m)	6	6
Minimum Interior Side Yard Setback (m)	1.2	1.2
Additional Dwelling Units	2	1
Minimum Parking Spaces	1	1
Parking Space Dimensions (m)	2.6 wide, 5.2 long	2.6 wide, 5.2 long

LEGEND:

ZONING OFFSET

No.	ISSUE / REVISION	DD/MM/YY
1	ISSUED FOR	XX/XX/XX

VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING. 0 25mm

SCALE: 1:200

CLIENT:

CONSULTANT: www.jlrichards.ca

J.L.Richards ENGINEERS • ARCHITECTS • PLANNERS

CONSULTANT:

PROFESSIONAL STAMP

PROJECT NORTH

PROJECT:

2701 PAGE ROAD

OTTAWA, ONTARIO

DRAWING:

CONCEPTUAL SITE PLAN

DESIGN: MM	
DRAWN: KC	DRAWING #:
CHECKED: MM	C0
JLR #: 33647-001	

PLOT DATE: Tuesday, December 23, 2025 11:45:14 AM

File Location: P:\33000\33647-001 - 2701 Page Road ZBL\10-Production\01-Civil\33647-001 C CONCEPTUAL SITE PLAN.dwg

Distances shown on this plan are ground distances and can be converted to grid distances by multiplying by the combined scale factor of 0.999959.

Bearings are grid, derived from Can-Net 2016 Real Time Network GPS observations on points A and B, shown hereon, having a bearing of N66°48'15"E and are referred to the Central Meridian of MTM Zone 9 NAD-83 (CSRS) (2010).

Coordinates are derived from Can-Net 2016 Real Time Network GPS observations and are referred to the Central Meridian of MTM Zone 9 NAD-83 (CSRS) (2010).

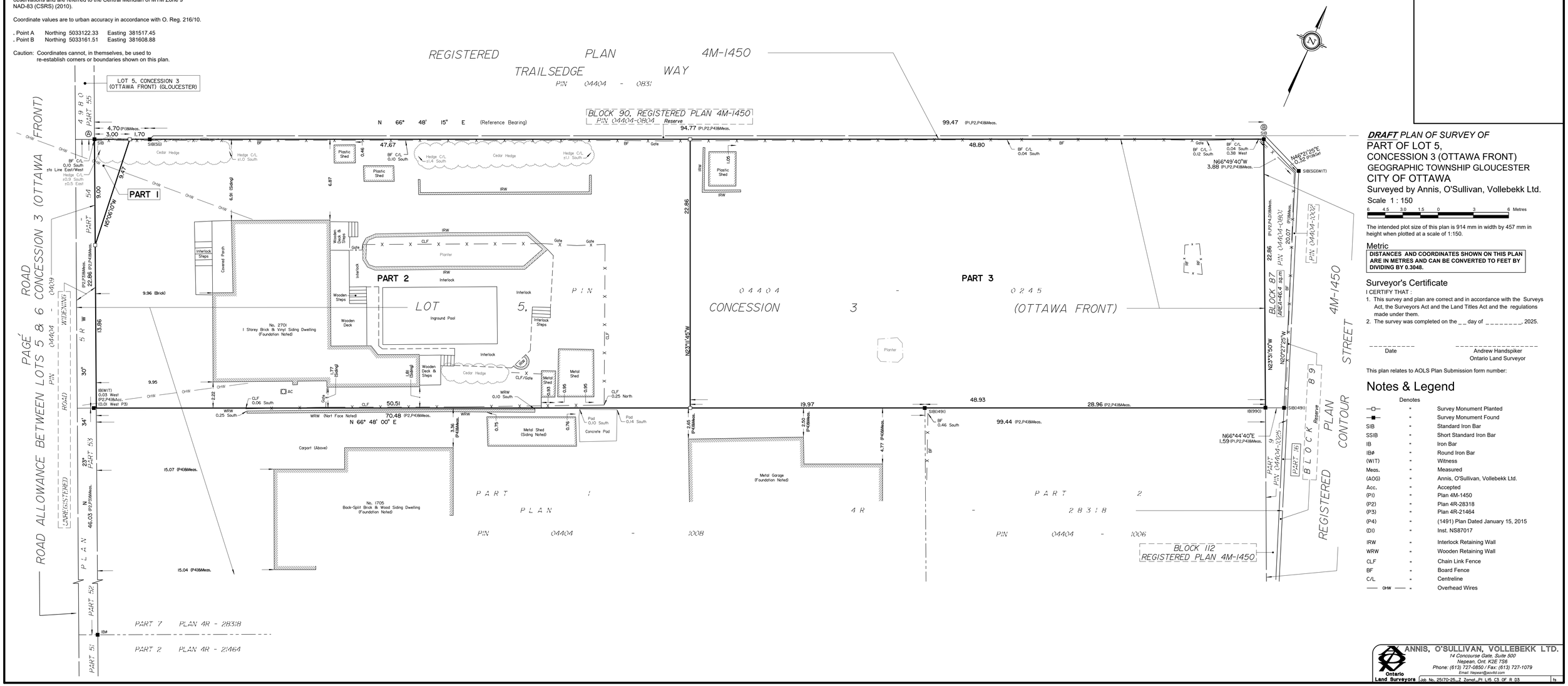
Coordinate values are to urban accuracy in accordance with O. Reg. 216/10.

. Point A Northing 5033122.33 Easting 381517.45
. Point B Northing 5033161.51 Easting 381608.88

Caution: Coordinates cannot, in themselves, be used to re-establish corners or boundaries shown on this plan.

SCHEDULE

AREA (Sq.m.)	PART	LOT	CONCESSION	PIN
13.5	1	PART OF 5	3 (OTTAWA FRONT)	ALL OF 04404-0245
1143.0	2			
1117.0	3			



DRAFT PLAN OF SURVEY OF
PART OF LOT 5,
CONCESSION 3 (OTTAWA FRONT)
GEOGRAPHIC TOWNSHIP GLOUCESTER
CITY OF OTTAWA

Surveyed by Annis, O'Sullivan, Vollebekk Ltd.

Scale 1 : 150

The intended plot size of this plan is 914 mm in width by 457 mm in height when plotted at a scale of 1:150.

Metric

DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

Surveyor's Certificate

I CERTIFY THAT :

1. This survey and plan are correct and in accordance with the Surveys Act, the Surveyors Act and the Land Titles Act and the regulations made under them.
2. The survey was completed on the __ day of _____, 2025.

_____ Date

_____ Andrew Handspiker
Ontario Land Surveyor

This plan relates to AOLS Plan Submission form number:

Notes & Legend

Denotes

□	-	Survey Monument Planted
■	-	Survey Monument Found
SIB	-	Standard Iron Bar
SSIB	-	Short Standard Iron Bar
IB	-	Iron Bar
IBø	-	Round Iron Bar
(WIT)	-	Witness
Meas.	-	Measured
(AOG)	-	Annis, O'Sullivan, Vollebekk Ltd.
Acc.	-	Accepted
(P1)	-	Plan 4M-1450
(P2)	-	Plan 4R-28318
(P3)	-	Plan 4R-21464
(P4)	-	(1491) Plan Dated January 15, 2015
(DI)	-	Inst. NS87017
IRW	-	Interlock Retaining Wall
WRW	-	Wooden Retaining Wall
CLF	-	Chain Link Fence
BF	-	Board Fence
C/L	-	Centreline
—— OHW ——	-	Overhead Wires

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14 Concourse Gate, Suite 900
Nepean, Ont. K2E 7S6
Phone: (613) 727-0850 / Fax: (613) 727-1079
Email: Nepean@aovltd.com

Job. No. 25170-25_Z Zamot_Pt Lt5 C3 OF R D3 fs

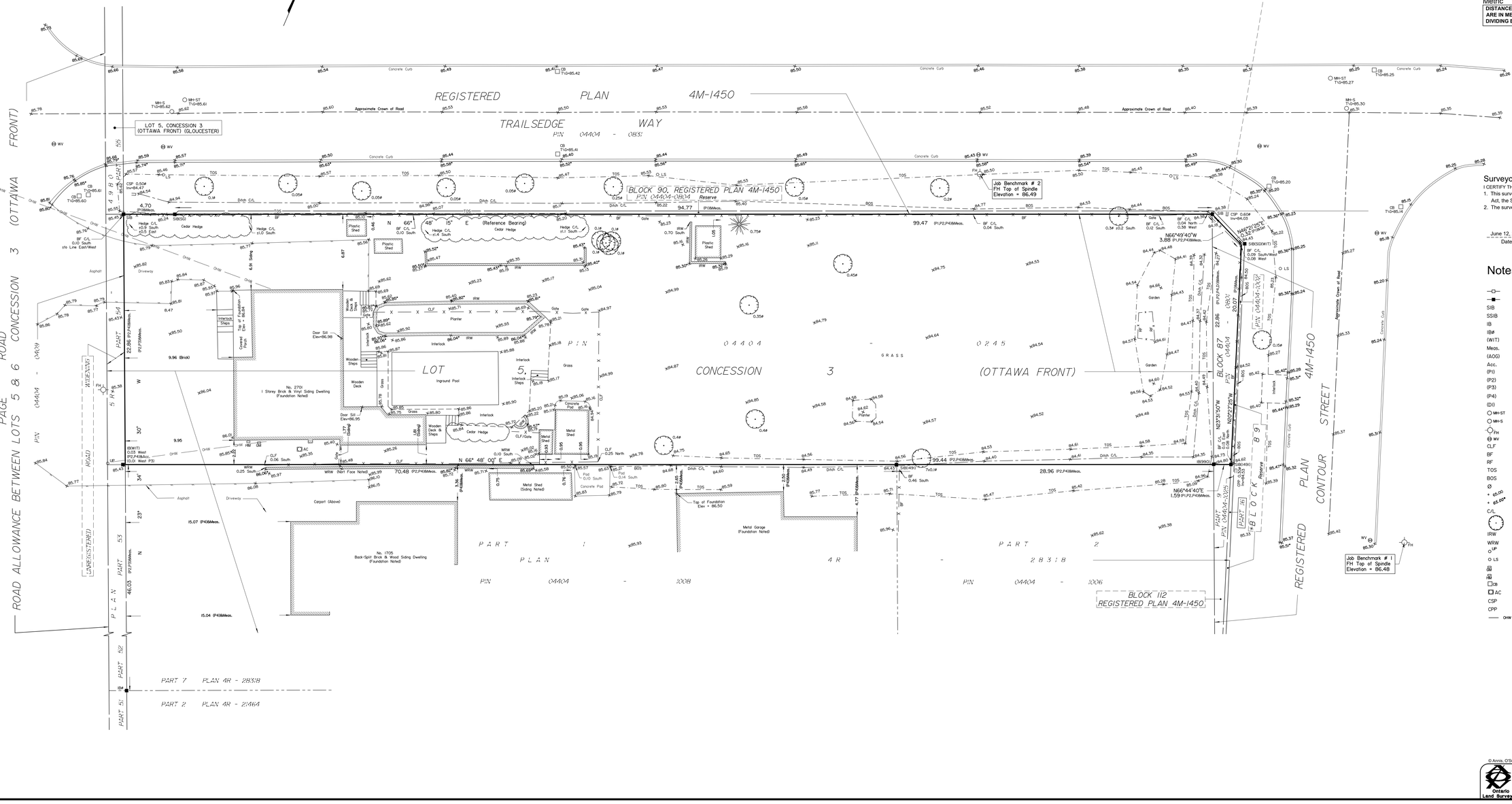
UTILITY NOTES

1. This drawing cannot be accepted as acknowledging all of the utilities and it will be the responsibility of the user to contact the respective utility authorities for confirmation.
2. Only visible surface utilities were located.
3. A field location of underground plant by the pertinent utility authority is mandatory before any work involving breaking ground, probing, excavating etc.

ELEVATION NOTES

1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum, derived from Geodetic Survey of Canada Vertical Control Monument No. 001196530227 having an elevation of 86.707 metres.
2. It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that it's relative elevation and description agrees with the information shown on this drawing.

Bearings are grid, derived from Southerly Limit of Block 90 shown to be N66°48'15"E on Registered Plan 4M-1450 and are referred to the Central Meridian of MTM Zone 9 (76°30' West Longitude) NAD-83 (CSRS) (2010).


REGISTERED PLAN 4M-1450
TRAILSEDGE WAY
PIN 04404 - 0831
LOT 5, CONCESSION 3 (OTTAWA FRONT) (GLOUCESTER)
BLOCK 90, REGISTERED PLAN 4M-1450
PIN 04404-0804 Reserve
Job Benchmark # 2
FH Top of Spindle
Elevation = 86.49
Job Benchmark # 1
FH Top of Spindle
Elevation = 86.48
LOT 5, CONCESSION 3 (OTTAWA FRONT)
PART OF LOT 5, CONCESSION 3 (OTTAWA FRONT) GEOGRAPHIC TOWNSHIP OF GLOUCESTER
PART 1 PLAN 4R - 28318
PART 2 PLAN 4R - 21464
PART 7 PLAN 4R - 28318
PART 5 PLAN 4R - 21464
No. 2701 1 Storey Brick & Vinyl Siding Dwelling (Foundation Noted)
No. 1705 Back-Split Brick & Wood Siding Dwelling (Foundation Noted)
Metal Garage (Foundation Noted)
Carport (Above)
Inground Pool
Cedar Hedge
Chain Link Fence
Board Fence
Rail Fence
Metal Shed
Plastic Shed
Concrete Pad
Wooden Deck & Steps
Interlock Steps
Top of Foundation Elev = 86.50
Door Sill Elev=86.98
Door Sill Elev=86.95
Gazebo
Garden
Planter
Asphalt
Driveway
Grass
Concrete Curb
Approximate Crown of Road
BLOCK 112 REGISTERED PLAN 4M-1450
PART 16 PIN 04404-0805
BLOCK 87 PIN 04404-0245
PART 1 PLAN 4R-28318
PART 2 PLAN 4R-21464
PART 5 PLAN 4R-21464
PART 7 PLAN 4R-28318
ROAD ALLOWANCE BETWEEN LOTS 5 & 6 CONCESSION 3 (OTTAWA FRONT)
PAGE'S ROAD
REGISTERED PLAN 4M-1450 CONTOUR STREET
WIDENING
(UNREGISTERED)
N 66° 48' 00" E
70.48 (P2,P4)Meas.
99.44 (P1,P2,P4)Meas.
94.77 (P1)Meas.
99.47 (P1,P2,P4)Meas.
28.96 (P2,P4)Meas.
22.86 (P2,P4)Meas.
46.03 (P4)Meas.
15.07 (P4)Meas.
15.04 (P4)Meas.
9.96 (Brick)
9.95
8.47
6.87
6.39 Siding
4.70
1.59 (P1,P2,P4)Meas.
3.88 (P1,P2,P4)Meas.
N66°49'40"W
N66°44'40"E
N23°39'50"W
N20°27'25"W
SIB(S30)
SSIB(S30)(WIT)
SIB(493)
SSIB(493)(WIT)
IB(S30)
IB(493)
IBø
CSP 0.60ø Inv=84.03
CSP 0.50ø Inv=84.47
CSP 0.60ø Inv=83.9
CB TUG=85.60
CB TUG=85.61
CB TUG=85.42
CB TUG=85.40
CB TUG=85.25
CB TUG=85.14
CB TUG=85.20
MH-S TUG=85.62
MH-ST TUG=85.61
MH-ST TUG=85.27
MH-S TUG=85.30
FH
WV
LS
Gate
Fence
Hedge C/L ±0.9 South ±0.5 East
Hedge C/L ±1.0 South
Hedge C/L ±1.4 South
Hedge C/L ±1.1 South
BF C/L 0.10 South ±to Line East/West
BF C/L 0.02 South
BF C/L 0.04 North 0.38 West
BF C/L 0.09 South/West 0.08 West
BF C/L 0.04 South
BF 0.46 South
BF 0.3ø ±0.2 South
Ø0.3ø
Ø0.4ø
Ø0.5ø
Ø0.2ø
Ø0.1ø
Ø0.35ø
Ø0.45ø
Ø0.75ø
Ø0.4ø
Ø0.25ø
Ø0.05ø
Ø0.15

File No.: PC2025-0193

July 24, 2025

Morgon Jones
JL Richards & Associates
Via email: mjones@jlrichards.ca

Subject: Pre-Consultation: Meeting Feedback
Proposed Zoning by-law Amendment & Consent / Severance
2701 Page Road, Ottawa

Please find below information regarding next steps as well as consolidated comments from the above-noted pre-consultation meeting held on July 16, 2025.

Pre-Consultation Preliminary Assessment

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 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 subject lands are zoned Development Reserve (DR) and designated as Neighbourhood within the Suburban (East) Transect.

2. The surrounding neighbourhood is zoned DR, R1WW and, most commonly, R3Z.

3. Staff have no concerns at this time with the proposal to rezone the lands to the appropriate R3 Subzone.

a. Staff note that the minimum lot width for a townhouse in R3Z is 6m and the minimum lot area is 150sqm – both of which appear to be met based on the submitted concept plan

b. The minimum front yard setback and interior side yard setback is 3m (based on the Z subzone only), and the minimum rear yard setback is 6m. These setbacks appear to be met based on the provided concept plan.

i. Some zoning compliance cannot be confirmed based on the submitted concept plan, such as the location of garages/parking/etc, which may change the minimum setbacks requirements. Please refer to the R3Z zoning provisions and parking provisions to confirm compliance with the necessary setbacks, as applicable.

ii. Ensure compliance with the endnotes, otherwise site-specific exceptions will be required.

4. Proposed garages and legal parking should be shown on the concept plan. Front yard parking is not permitted.

5. Lifting of 30 Reserve application will be required prior to development.

a. The applicant has confirmed

6. The proposed lot depths are shallower than the typical townhouse lot and than those low-rise residential lots nearby. Although the provisions of the proposed R3Z zone can be met, please provide thorough consideration of the amount of outdoor amenity area being provided to residents, soft landscaping amounts (including tree planting) and buffering between structures. Staff will be looking for a strong rationale supporting the reduced lot depths.

7. Staff have no concerns with the division of the lands into two development blocks via consent. The remaining lots can be divided once construction is prepared. I would recommend reaching out Elizabeth King (Elizabeth.King@ottawa.ca) and Nivethini Jekku Einkaran (nivethini.jekkueinkaran@ottawa.ca) prior to submitting your consent applications.

8. Please provide information as to the planned structure for rear yard access for those interior townhouse lots. If easements are required, they can accompany the consent applications once the project has moved further along.

9. The lands are located within the East Urban Community Landowners Group, based on Official Plan Policy 49.1, Volume 2C

a. Cost Sharing – the Owner must provide a letter from the Trustee of the East Urban Community (EUC) Cost Sharing Agreement confirming that the said Owner is in good standing under the terms of the said EUC Cost Sharing Agreement and that all amounts owing and/or works and services to be performed under the said Agreement have been paid and/or satisfied by the Owner. Please reach out to Kris Kilborn at kris.kilborn@stantec.com regarding the cost sharing.

b. The applicant will be required to satisfy the above for any consent or Lifting of 30cm Reserve application to be approved (or conditions of approval will be applied)

c. ASP Policy 49.1 reads:

> *Landowners within the boundary of the East Urban Community – CDP For The Phase 1 Area and the East Urban Community - Community Design Plans for the Phase 2 Areas, approved by Council, shall enter into private agreements to share the costs of the major infrastructure projects and associated studies and plans (including but not limited to Infrastructure Planning, Environmental Assessments and Restoration Plans) required for the development of East Urban Community, so that the costs shall be distributed fairly among the benefiting landowners. Each agreement shall contain a financial schedule describing the estimated costs of the major infrastructure projects and associated studies and plans, as well as the proportionate share of the costs for each landowner. The City shall include a condition of draft approval for all plans of subdivision, plans of condominium and severance applications, and as a condition of approval for site plans in the East Urban Community, Phases 1 and 2, requiring notification from the Trustees of the East Urban Community Phases 1 and 2, that the owner is party to the agreements and has paid its share of any costs pursuant to the agreements*

10. Conditions 33 of the subdivision agreement requires that block 87 be consolidated into 2701 Page Road. Please confirm whether this has been completed:

> 33. **Blocks 87, 112 and 113**
> The Owner covenants and agrees that, immediately after registration of the Plan of Subdivision, Block 87 will be consolidated with the lands municipally known as 2701 Pagé Road, Block 112 will be consolidated with the lands municipally known as 2705 Pagé Road, and Block 113 will be consolidated with the lands municipally known as 2709 Pagé Road, all at the sole expense of the Owner.

Urban Design

Comments:

11. Please couple driveways to support tree planting within the front yards.

12. An Urban Design Brief is **not** required.

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

a. Site Plan (Conceptual)

b. Landscape Plan (Conceptual)

c. Building Elevations (Conceptual)

Please contact Nader Kadri (Nader.Kadri@ottawa.ca) for follow-up questions.

Engineering

Comments:

14. Site Servicing Study:

    a. **Assessment of Adequacy of Public Services** shall be prepared for water, storm, and sanitary services.

        i. Servicing and Storm water management (as applicable) shall be in accordance with approved Trailsedge subdivision master servicing study if connecting into the subdivisions infrastructure.

        ii. Excerpts from higher level subdivision studies prepared by Richcraft shall be included in the report to justify the proposed added servicing demands.

iii. Sewer connection fees are to be paid to the developer prior to lifting of the 30cm reserve along Trailsedge Way.

b. Storm Sewer:

i. A 375mm dia. PVC storm sewer is available within Trailsedge Way.

ii. Post-development runoff is to be analyzed and controlled to the satisfaction of the City of Ottawa.

c. Sanitary Sewer:

i. A 200 mm dia. PVC Sanitary sewer is available within Trailsedge Way.

ii. Include correspondence from the Architect within the Appendix of the report confirming the number of residential units and a unit type breakdown to support the calculated building populations.

iii. Please apply the wastewater design flow parameters in Technical Bulletin PIEDTB-2018-01.

iv. Proposed sanitary flows are to be confirmed for capacity downstream.

d. Water:

i. A 203 mm dia. PVC watermain is available within Trailsedge Way.

ii. 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:

1. Plan showing the proposed location of service(s).
2. Type of development and the amount of fire flow required (L/min). Note: The OBC method can be used if the fire demand for the private property is less than 9,000 L/min. If the OBC fire demand reaches 9000 L/min, then the FUS method is to be used.
3. Average daily demand: __L/s.
4. Maximum daily demand: __L/s.
5. Maximum hourly daily demand: __L/s.

6. Note: Use Table 3-3 of the MOE Design Guidelines for Drinking-Water System to determine Maximum Day and Maximum Hour peaking factors for 0 to 500 persons and use Table 4.2 of the Ottawa Design Guidelines, Water Distribution for 501 to 3,000 persons.

iii. 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.

15. Environmental

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.

b. The Phase I ESA shall provide all the required Environmental Source Information as required by O. Reg. 153/04. ERIS records are available to public at a reasonable cost and need to be included in the ESA report to comply with O.Reg. 153/04 and the Official Plan. The City will not be in a position to approve the Phase I ESA without the inclusion of the ERIS reports.

c. See Terms of Reference for ESA (1 & 2) submission: https://documents.ottawa.ca/sites/default/files/environmental_assess_1and2_en.pdf

d. See section 10.1.6 within the official plan for more information. Official Plan: Section 10. Protection of Health and Safety (ottawa.ca)

16. Geotechnical

a. A Geotechnical Study/Investigation shall be prepared in support of this development proposal.

b. Grade raise limits shall be restricted to the recommendations of the geotechnical engineer.

c. Reducing the groundwater level in this area can lead to potential damages to surrounding structures due to excessive differential settlements of the ground. The impact of groundwater lowering on adjacent properties needs to be discussed and investigated to ensure there will be no short term and long-term damages associated with lowering the groundwater in this area.

d. Geotechnical Study shall be consistent with the Geotechnical Investigation and Reporting Guidelines for Development Applications. Geotechnical Investigation and Reporting (ottawa.ca)

e. If Sensitive marine clay soils are present in this area that are susceptible to soil shrinkage that can lead to foundation and building damages. All six (6) conditions listed in the Tree Planting in Sensitive Marine Clay Soils-2017 Guidelines are required to be satisfied. Note that if the plasticity index of the soil is determined to be less than 40% a minimum separation between a street tree and the proposed building foundations of 4.5m will need to be achieved. A memorandum addressing the Tree in Clay Soil Guidelines prepared by a geotechnical engineer is required to be provided to the City. Tree Planting in Sensitive Marine Clay Soils - 2017 Guidelines (ottawa.ca)

17. Slope Stability Assessment Report

a. A slope stability assessment may be required if the topography of the land falls within the parameters below:

i. A report addressing the stability of slopes, prepared by a qualified geotechnical engineer licensed in the Province of Ontario, should be provided wherever a site has slopes (existing or proposed) steeper than 5 horizontal to 1 vertical (i.e., 11 degree inclination from horizontal) and/or more than 2 meter in height.

ii. A report is also required for sites having retaining walls greater than 1 meter high, that addresses the global stability of the proposed retaining walls.

b. See Terms of Reference for Slope Stability Submission: https://documents.ottawa.ca/sites/default/files/slope_stability_tor_en.pdf

18. SWM Development Charges

a. This site is subject to the Glouster Urban Center SWM development charges. Please visit Area Specific Development Charges for more information.

19. General

a. As-built plans and studies (if available) can be requested by contacting geoinformation@ottawa.ca.

b. An asphalt overlay for road reinstatement is required when 3 or more road cuts for service installation are proposed within 12m of each other as per the Road Activity Bylaw. See Construction in the Right-of-Way for more information.

c. If information provided in this feedback contradicts the information within applicable higher-level studies, please contact the undersigned to clarify which requirement shall govern.

Please refer to the City of Ottawa Guide to Preparing Studies and Plans [Engineering]: Planning application submission information and materials. The guide outlines the requirement for a statement to be provided on the plan about where the property boundaries have been derived from.

Feel free to contact Terenzo Giovannitti, Infrastructure Project Manager, for follow-up questions.

Noise

Comments:

20. No comments.

Feel free to contact Rochelle Fortier-Lesage, Transportation Project Manager, for follow-up questions.

Transportation

Comments:

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

a. The development proponent should protect the corner triangles to accommodate protected intersections per policies 2.1.1 (e) & (f). The City requires the following corner triangles at these locations:

i. Collector/Local: a 3 metre x 9 metre triangle, with the longer portion on the higher road segment

ii. Local/Local: a 3 metre x 3 metre triangle

b. Any requests for exceptions to ROW protection requirements must be discussed with Transportation Planning and concurrence provided by Transportation Planning management.

22. Ensure to pair driveways where possible.

23. The closure of an existing private approach shall reinstate the sidewalk, shoulder, curb, and boulevard to City standards.

24. For corner lots, ensure the Private Approach Bylaw will be met: “on a corner lot or a lot abutting on more than one road allowance, the minimum distance between the nearest limit of a private approach and an intersecting street line or its extension shall not be less than 6 metres.” The “street line” means the lot line that abuts a public street. Note that depending on the frontage width of the lot or block and the proposed land use, this may limit the driveway width that is achievable for the lot (i.e. a lot may be limited to a single-car width driveway versus double-width driveway).

25. Surface transportation noise should be taken into account, due to proximity to collector (Page Rd) and arterial roadways (Brian Coburn Blvd).

Feel free to contact Rochelle Fortier-Lesage, Transportation Project Manager, for follow-up questions.

Environment

Comments:

26. Based on the submission, the development will be undertaken in phases, whereby the land is proposed to be rezoned from DR (Development Review Zone) to R3 (Residential Third Density Zone), and if approved, the proponent will subsequently sever the land into two separate blocks. Once the two separate blocks are approved via the consent application process, the applicant proposes building six (6) townhouse units; one on each of the two blocks. Eventually, twelve (12) townhouse units will result from this proposal. Based on this description, site plan control may not be triggered for this development.

27. According to the Terms of Reference for Landscape Plan, a plan is required for site plan control, plans of subdivision, and plans of condominium. With that said, a high-level conceptual landscape plan may be required to support applications for zoning By-law amendments if deemed necessary by staff at pre-consultation. The Landscape plan was requested by the undersigned in light of the site characteristics and findings.

28. Locally appropriate tree species and plantings are recommended. Furthermore, according to the Natural Heritage Information Centre (NHIC) site, endangered Butternut tree species may be in the vicinity of the subject parcel. The landscape plan must follow the City of Ottawa Terms of Reference for Landscape plans, including but not limited to existing and proposed tree species. The landscape plan will help ensure the policies of the Official Plan (OP) are adhered to, specifically OP Sections 2.2.3, 4.8.1, and 4.8.2.

29. The city has a long-term urban forest canopy target of forty percent (40%) or more at the neighbourhood scale to help offset the extreme temperatures and urban heat island effect. The retention of trees and the introduction of

additional trees helps offset extreme temperatures by providing cooling and shade. Trees also have the added benefit of providing beautification, public health and well-being, pollution control, and other environmental and natural heritage benefits (OP Sections 2.2, 4.8, 10.3).

30. Any site alterations, clearing and/or tree removal must consider sensitive timing restrictions, such as bird breeding season (March through mid-August for most species) into consideration. In addition, and prior to any site alterations and clearing, please ensure you reach out to the staff forester to verify permit requirements.

31. For helpful information concerning timing restrictions and any wildlife that may be encountered, the city's Protocol for Wildlife Protection during Construction is helpful, even in urban areas.

32. The undersigned reached out to the staff Forrester, Haley Murray, as discussed during pre-consultation, and Haley has confirmed that a Tree Information Report (TIR) will be a requirement. Please refer to the Forestry comments for specifics. As far as Environmental commentary, the TIR will help further identify any Species at Risk (SAR) trees located adjacent to the site, as well as identify relevant protection measures.

33. Providing adequate setbacks and Low Impact Development Strategies, where feasible, may help provide greenspace for tree plantings.

34. The subject property is located across the street from Urban Greenspace, sub-designation Open Space, but an Environmental Impact Statement (EIS) shall not be a requirement. The Landscape Plan and TIR will provide sufficient information to address the characteristics.

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

Forestry

Comments:

35. There are protected trees in proximity to this development that triggers a Tree Information Report. All City trees of any size and privately owned trees 30 cm in diameter or greater are protected and must be accounted for. For the consent to sever application, a Tree Information Report is required.

36. It is recommended a conceptual landscape plan be provided with the Zoning By-law Amendment application. To provide a livable space for future residents and contribute to the urban forest canopy, suitable soil volume must be provided. While a detailed landscape plan is not required, please provide the following:

    - Dimensions of the soft landscaped area available

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

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

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

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

Parkland

Comments:

37. Cash-in-lieu of parkland / parkland dedication

    a. Parkland Dedication By-law No. 2022-280

    b. Parkland dedication will be collected in the form of cash in lieu of parkland dedidcation.

    c. If parkland dedication has been collected for this site, kindly outline how it has been collected.

Feel free to contact Jessica Button, Parks Planner, for follow-up questions.

Conservation Authority

Comments:

38. Please contact the Rideau Valley Conservation Authority for comment.

Please contact Rideau Valley Conservation Authority for follow-up questions.

Community issues

Comments:

39. N/a

Other

40. 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. Major Zoning By-law Amendment & Lifting of 30cm Reserve
    a. Additional information regarding fees related to planning applications can be found here.
2. The attached **Study and Plan Identification List** outlines the information and material that has been identified as either required (R) or advised (A) as part of a future complete application submission.
    a. The required plans and studies must meet the City's Terms of Reference (ToR) and/or Guidelines, as available on Ottawa.ca. These ToR and Guidelines outline the specific requirements that must be met for each plan or study to be deemed adequate.
3. All of the above comments or issues should be addressed to ensure the effectiveness of the application submission review.

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

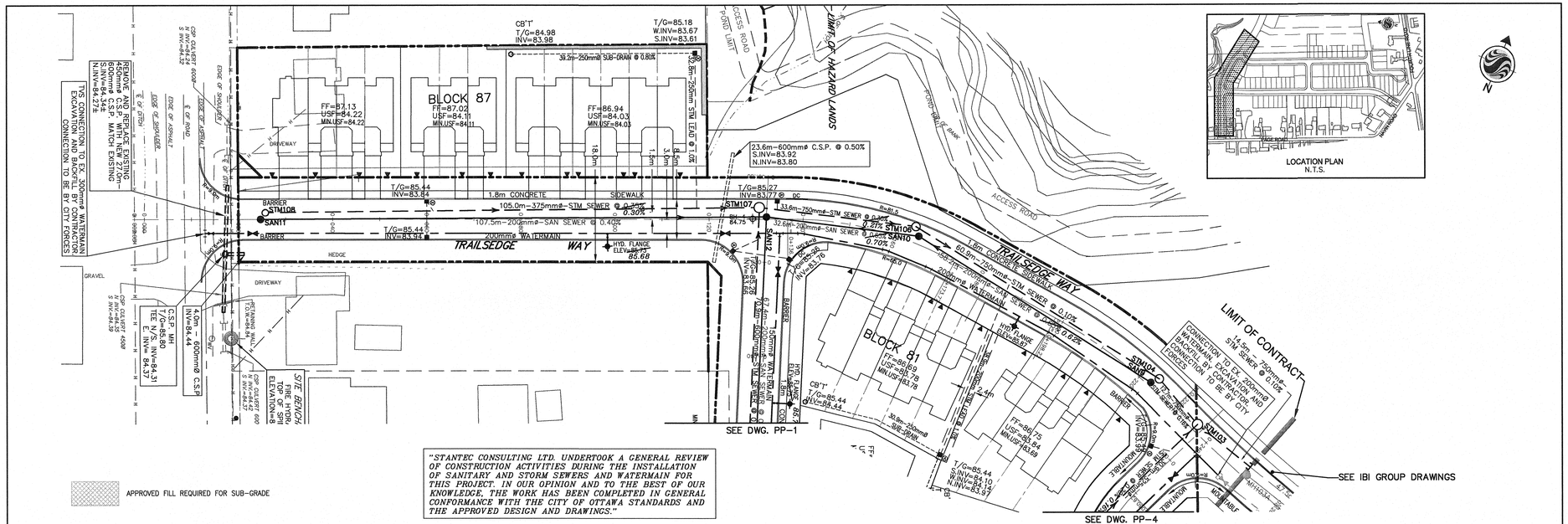
Yours Truly,
Craig Hamilton

Encl. SPIL

c.c. Sera Celebi
Hayley Murray
Kim Macdonald
Terenzo Giovannitti
Jessica Button
Rochelle Fortier-Lesage
Nader Kadri
Phil Castro

Appendix B

Existing Drawings


CB'T'
T/G=84.98
INV=83.98
T/G=85.18
W.INV=83.67
S.INV=83.61
39.2m-250mmø SUB-DRAIN @ 0.8%
BLOCK 87
FF=87.13
USF=84.22
MIN.USF=84.22
FF=87.02
USF=84.11
MIN.USF=84.11
FF=86.94
USF=84.03
MIN.USF=84.03
DRIVEWAY
REMOVE AND REPLACE EXISTING 600mmø C.S.P. MATCH EXISTING
23.6m-600mmø C.S.P. @ 0.50%
S.INV=83.92
N.INV=83.80
T/G=85.44
INV=83.84
1.8m CONCRETE SIDEWALK
105.0m-375mmø-STM SEWER @ 0.30%
STM108
STM107
T/G=85.27
INV=83.77 @ pc
33.6m-750mmø-STM SEWER @ 0.30%
SAN11
107.5m-200mmø-SAN SEWER @ 0.40%
T/G=85.44
INV=83.94
200mmø WATERMAIN
TRAILSEDGE WAY
HYD. FLANGE ELEV=86.68
SAN10
32.6m-200mmø-SAN SEWER @ 0.70%
HEDGE
GRAVEL
CSP CULVERT 600Ø S.INV.=84.32
CSP CULVERT 450Ø S.INV.=84.39
C.S.P. MH T/G=85.50 INV=84.31 E.INV=84.37
4.0m-600mmø C.S.P CULVERT @ 1.75% E.INV.=84.44 W.INV.=84.37
EXISTING WM
SITE BENCH FIRE HYDR ELEVATION=88
SEE DWG. PP-1
SEE DWG. PP-4
LIMIT OF NATURAL LANDS
ACCESS ROAD
POND UNIT
TOP OF BANK
BLOCK 81
FF=86.81
USF=86.18
MIN.USF=83.78
FF=86.75
USF=86.84
MIN.USF=83.69
CB'T'
T/G=85.44
INV=84.10
W.INV=83.84
S.INV=83.97
30.8m-200mmø-SAN SEWER @ 0.62%
SAN9
SAN12
SAN13
SAN14
SAN15
SAN16
SAN17
SAN18
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SAN21
SAN22
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SAN48
SAN49
SAN50
SAN51

Appendix C

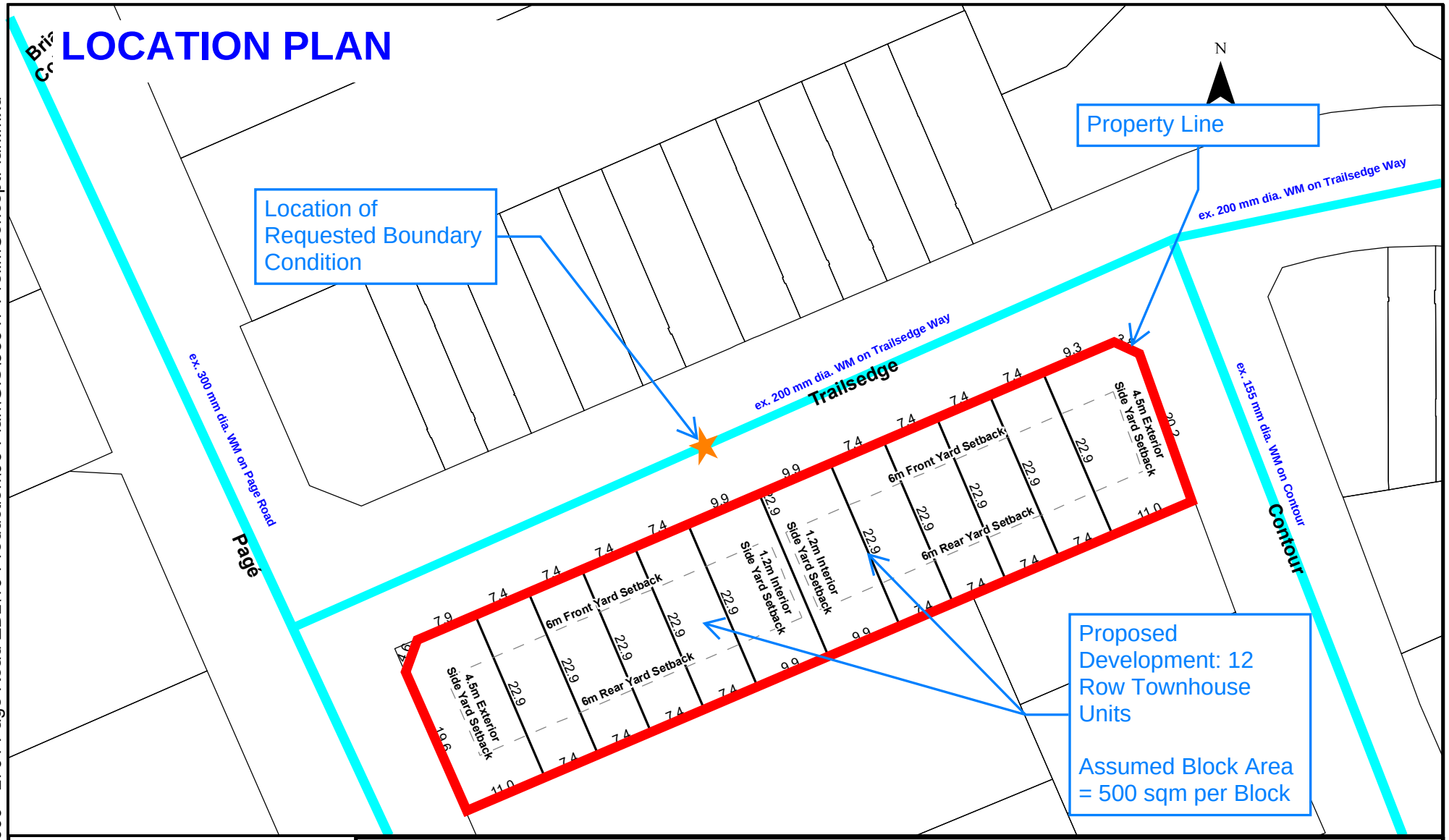
Water Servicing

Water Demand Calculations

2701 Page Road (JLR 33647-001)

Residential Unit Break Down	No.	Persons Per Unit (Table 4.1, City of Ottawa)
Row Townhouses	12	2.7
Total Unit Count =	12	Units
Total Population=	33	ppl
Average Day Consumption Rate	280	L/c/d
Average Day Demand	**0.11**	**L/s**
Maximum Day Peaking Factor	9.39	x Avg Day (Table 3-3, MOE 2008)
Maximum Day Demand	**1.00**	**L/s**
Peak Hour Peaking Factor	14.13	x Avg Day (Table 3-3, MOE 2008)
Peak Hour Demand	**1.51**	**L/s**
Total Demands		
Average Day Demand	**0.11**	**L/s**
Maximum Day demand	**1.00**	**L/s**
Peak Hour Demand	**1.51**	**L/s**

LOCATION PLAN



0 5 10 20 30 40
Meters

PROJECT:

2701 PAGE ROAD
OTTAWA, ONTARIO

DRAWING:

PRELIMINARY CONCEPT PLAN

J.L.Richards
ENGINEERS · ARCHITECTS · PLANNERS
www.jlrichards.ca

DESIGN:	MJ/TB
DRAWN:	TB
CHECKED:	MJ
JLR #:	33647

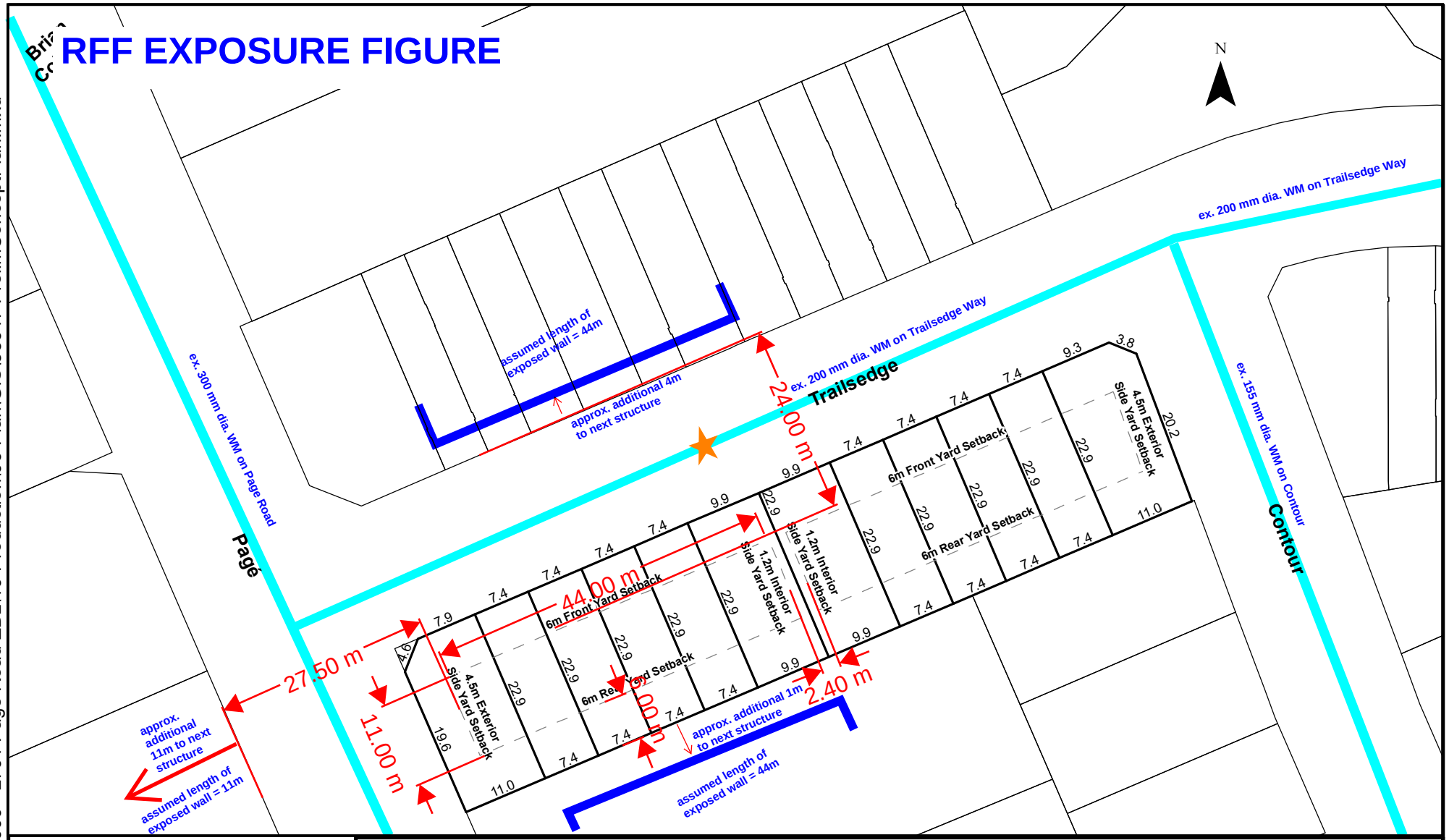
DRAWING #:

FIGURE 1

File Location: P:\33000\33647-000 - 2701 Page Road ZBL\10-Production\06-Plan\GIS\33647 PrelimConceptPlan.mxd

Plot Date: Monday, June 9, 2025 3:30:58 PM

RFF EXPOSURE FIGURE



0 5 10 20 30 40
Meters

PROJECT:

2701 PAGE ROAD
OTTAWA, ONTARIO

DRAWING:

PRELIMINARY CONCEPT PLAN

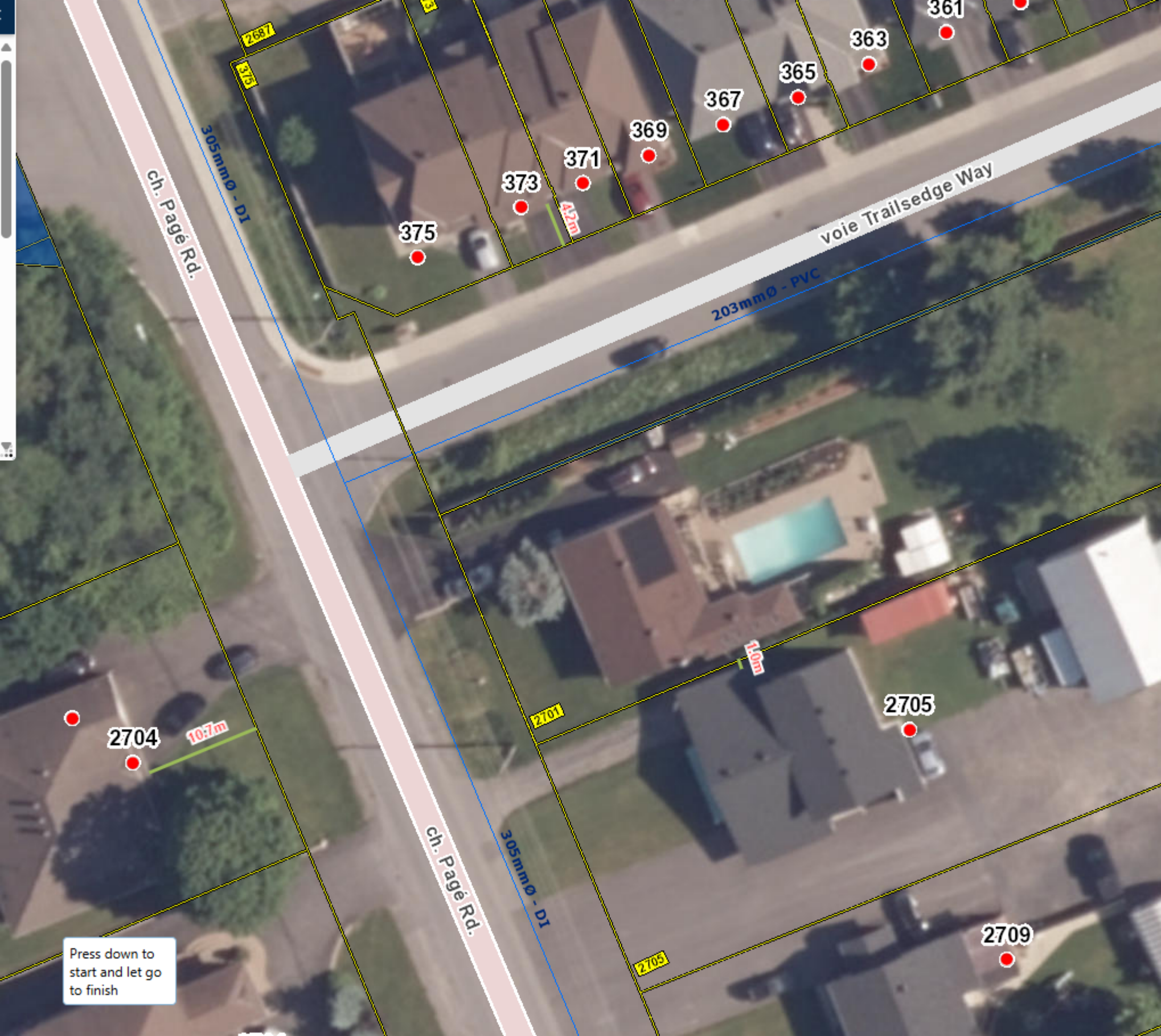
J.L.Richards
ENGINEERS · ARCHITECTS · PLANNERS
www.jlrichards.ca

DESIGN:	MJ/TB
DRAWN:	TB
CHECKED:	MJ
JLR #:	33647

DRAWING #:
FIGURE 1

File Location: P:\33000\33647-000 - 2701 Page Road ZBL\10-Production\06-Plan\GIS\33647 PrelimConceptPlan.mxd

Plot Date: Monday, June 9, 2025 3:30:58 PM


2687
375
305mmØ - D1
ch. Pagé Rd.
voie Trailsedge Way
203mmØ - PVC
361
363
365
367
369
371
373
375
4.2m
2701
1.0m
2705
2704
10.7m
ch. Pagé Rd.
305mmØ - D1
2709
Press down to start and let go to finish

FUS Fire Flow Calculations

2701 Page Road - Row Townhouse
(JLR 33647-001)

Step	Parameter	Value		Note
A	Type of Construction	Wood Frame		
	Coefficient (C)	1.5		
B	Ground Floor Area	500	m^2	ROW TH with 6 Units
C	Height in storeys	2	storeys	Basements are excluded.
	Total Floor Area	1000	m^2	
D	Fire Flow Formula	F=220C√A		
	Fire Flow	10436	L/min	
	Rounded Fire Flow	10000	L/min	Flow rounded to nearest 1000 L/min.
E	Occupancy Class	Limited Combustible		Residential units have a limited combustible occupancy.
	Occupancy Charge	-15%		
	Occupancy Increase or Decrease	-1500		
	Fire Flow	8500	L/min	No rounding applied.
F	Sprinkler Protection	None		
	Sprinkler Credit	0%		
	Decrease for Sprinkler	0	L/min	
G	*North Side Exposure*			
	Exposing Wall:	Wood Frame		Existing Units on Trailsedge Way - 2 Storey TH
	Exposed Wall:	Wood Frame		
	Length of Exposed Wall:	45.0	m	
	Height of Exposed Wall:	2	storeys	
	Length-Height Factor	90.0	m-storeys	
	Separation Distance	30	m	
	North Side Exposure Charge	8%		
	East Side Exposure			
	Exposing Wall:	Wood Frame		Proposed 6 Units to East
	Exposed Wall:	Wood Frame		
	Length of Exposed Wall:	18.0	m	
	Height of Exposed Wall:	2	storeys	
	Length-Height Factor	36.0	m-storeys	
	Separation Distance	2.4	m	
	East Side Exposure Charge	21%		
	South Side Exposure			
	Exposing Wall:	Wood Frame		Existing unit on 2705 Page Rd
	Exposed Wall:	Wood Frame		
	Length of Exposed Wall:	44.0	m	
	Height of Exposed Wall:	2	storeys	
	Length-Height Factor	88.0	m-storeys	
	Separation Distance	7	m	
	South Side Exposure Charge	19%		
	West Side Exposure			
	Exposing Wall:	Wood Frame		Existing Units on 2704 Page Road
	Exposed Wall:	Wood Frame		
	Length of Exposed Wall:	11.0	m	
	Height of Exposed Wall:	2	storeys	
	Length-Height Factor	22.0	m-storeys	
	Separation Distance	38.5	m	
	West Side Exposure Charge	0%		
	Total Exposure Charge	48%		The total exposure charge is below the maximum value of 75%.
	Increase for Exposures	4080	L/min	
H	Fire Flow	12580	L/min	
	Rounded Fire Flow	13000	L/min	Flow rounded to nearest 1000 L/min.
City Cap	**Required Fire Flow (RFF)**	**13000**	**L/min**	
		217	**L/s**	

Fire Underwriters Survey (FUS) Fire Flow Calculations
In accordance with City of Ottawa Technical Bulletin ISTB-2018-02 dated March 21, 2018

Mahad Musse

From: Giovannitti, Terenzo <terenzo.giovannitti@ottawa.ca>
Sent: Friday, November 7, 2025 10:30 AM
To: Mahad Musse
Cc: Karla Ferrey
Subject: RE: 2701 Page Road - BC Request + Sanitary
Attachments: 2701 Page Boundary Condition.docx

Hi Mahad,

Please see attached results of the boundary condition request.
And The City's Water Recourses group has confirmed there are no apparent issues 0.46 L/s sanitary flow. However, the master servicing study for the adjacent subdivision must be consulted to double check downstream capacity.

Regards,
Terenzo Giovannitti, *P.Eng*
Project Manager
Development Review
Planning, Development and Building Services Department
City of Ottawa
110 Laurier Ave W. Ottawa, ON
613-580-2424 (ext. 23436)
terenzo.giovannitti@ottawa.ca

From: Mahad Musse <mmusse@jlrichards.ca>
Sent: October 30, 2025 3:51 PM
To: Giovannitti, Terenzo <terenzo.giovannitti@ottawa.ca>
Cc: Karla Ferrey <kferrey@jlrichards.ca>
Subject: FW: 2701 Page Road - BC Request + Sanitary

Hello Terenzo,

We have been retained by Ziad Zamat (Our Client) to assess the servicing strategies for the proposed redevelopment of 2701 Page Road for residential use. The current preliminary concept plan involves the demolition of the existing dwelling and the construction of two townhouse blocks, each comprising six units, for a total of twelve (12) townhouse units.

To facilitate the preparation of an Assessment of Adequacy of Public Services (AAPS), we require a review of the water and sanitary servicing strategies. Specifically, we request that the City provide the water boundary conditions for the water supply and review the available capacity for the existing sanitary services.

Water Boundary Condition Request:

We kindly request the water boundary conditions at Trailsedge Road, immediately east of Page Road (refer to the attached Location Plan). The proposed units will be located in front of the existing townhouse blocks at 351 to 375 Trailsedge Way, with a 200 mm diameter watermain on Trailsedge Way available to service the proposed units. Please find attached the site demand and required fire flow (RFF) calculations, in accordance with FUS guidelines, for your reference.

Demands and Fire Flow
Average Day Demand: 0.11 L/s
Max Day Demand: 1.00 L/s
Peak Hour Demand: 1.51 L/s
RFF 1: 167 L/s
RFF 3: 217 L/s

We have requested a Required Fire Flow (RFF) of 167 L/s, in accordance with the City's cap for townhouses. However, to account for the case where the cap may not apply, we have also requested RFFs of 217 L/s.

Sanitary Capacity Analysis:

Following our meeting on October 30, 2025, to confirm the downstream capacities, please find below the estimated wastewater demands for the site with the calculations attached.

Peak Wastewater Flow: 0.46 L/s

Thanks
Mahad

Boundary Conditions
2701 Pagé Road

Provided Information

Scenario	Demand	
	L/min	L/s
Average Daily Demand	7	0.11
Maximum Daily Demand	60	1.00
Peak Hour	91	1.51
Fire Flow Demand #1	10,000	166.67
Fire Flow Demand #2	13,000	216.67

Location

Results

Connection 1 – Trailesdge Way

Demand Scenario	Head (m)	Pressure[1] (psi)
Maximum HGL	130.8	64.3
Peak Hour	127.8	60.0
Max Day plus Fire Flow #1	122.9	53.0
Max Day plus Fire Flow #2	119.2	47.8

[1] Ground Elevation = 85.6 m

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.

Appendix D

Wastewater Servicing

J.L. Richards & Associates Limited

Wastewater Calculations
2701 Page Road
(JLR 33647-001)

Site Area	0.2300	Ha

Unit Breakdown	**No.**	
Row Townhouse	12	2.7 persons/unit (Table 4.1)
Total Unit Count	12	
Total Population	32	ppl
Theoretical Wastewater Flow	280	L/c/d
Average Wastewater Flow	**0.11**	**L/s**
Harmon Peaking Factor	3.679	
Peak Wastewater Flow	**0.39**	**L/s**
Commercial/Office Area (ha)	0.00	
Commercial PF =	1	
Peak Flow (Comm) =	0.00	L/s
Dry & Wet I/I (0.33 L/s/ha)	0.08	L/s

Peak WW Flow (L/s)	0.46	L/s

Mahad Musse

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Demands and Fire Flow
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RFF 1: 167 L/s
RFF 3: 217 L/s

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Sanitary Capacity Analysis:

Following our meeting on October 30, 2025, to confirm the downstream capacities, please find below the estimated wastewater demands for the site with the calculations attached.

Peak Wastewater Flow: 0.46 L/s

Thanks
Mahad

Appendix E

Storm Servicing and Stormwater Management

UTILITY NOTES

1. This drawing cannot be accepted as acknowledging all of the utilities and it will be the responsibility of the user to contact the respective utility authorities for confirmation.
2. Only visible surface utilities were located.
3. A field location of underground plant by the pertinent utility authority is mandatory before any work involving breaking ground, probing, excavating etc.

ELEVATION NOTES

1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum, derived from Geodetic Survey of Canada Vertical Control Monument No. 001196530227 having an elevation of 86.707 metres.
2. It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that it's relative elevation and description agrees with the information shown on this drawing.

Bearings are grid, derived from observations of the Ontario Reference Network (ORN) and are referred to the Central Meridian of MTM Zone 9 (79°30' W) NAD-83 (CSRS) (2010). Bearings

POST-DEVELOPMENT BREAKDOWN:

REAR YARD:

TOTAL AREA = 1238 sqm = 0.124 ha
TOTAL IMPERVIOUS AREA = 298 + 285 = 583 sqm
TOTAL PERVIOUS AREA = 655sqm

IMPERVIOUS C-FACTOR: 0.9
PERVIOUS C-FACTOR: 0.2

C_Weighted Avg = (0.9 * 583 + 0.2 * 655) / (588+655) = 0.53

Assumed T_C (minimum time) = 10 mins

5 Year Intensity (Ottawa @ 10 mins) = i = 104.19 mm/hr

Q_5yr = 2.78 * C * A * i = 2.78 * 0.53 * 0.124 * 104.19 = 19 L/s

100 Year Intensity (Ottawa @ 10 mins) = i = 176.56 mm/hr

Q_100yr = 2.78 * C * A * i = 2.78 * 0.53 * 0.124 * 176.56= 32 L/s

POST-DEVELOPMENT BREAKDOWN:

FRONT YARD:

TOTAL AREA = 1005 sqm = 0.1 ha
TOTAL IMPERVIOUS AREA = 323+312+132 = 767 sqm
TOTAL PERVIOUS AREA = 370-132 sqm

IMPERVIOUS C-FACTOR: 0.9
PERVIOUS C-FACTOR: 0.2

C_Weighted Avg = (0.9 * 767 + 0.2 * 232) / (767+232) = 0.74

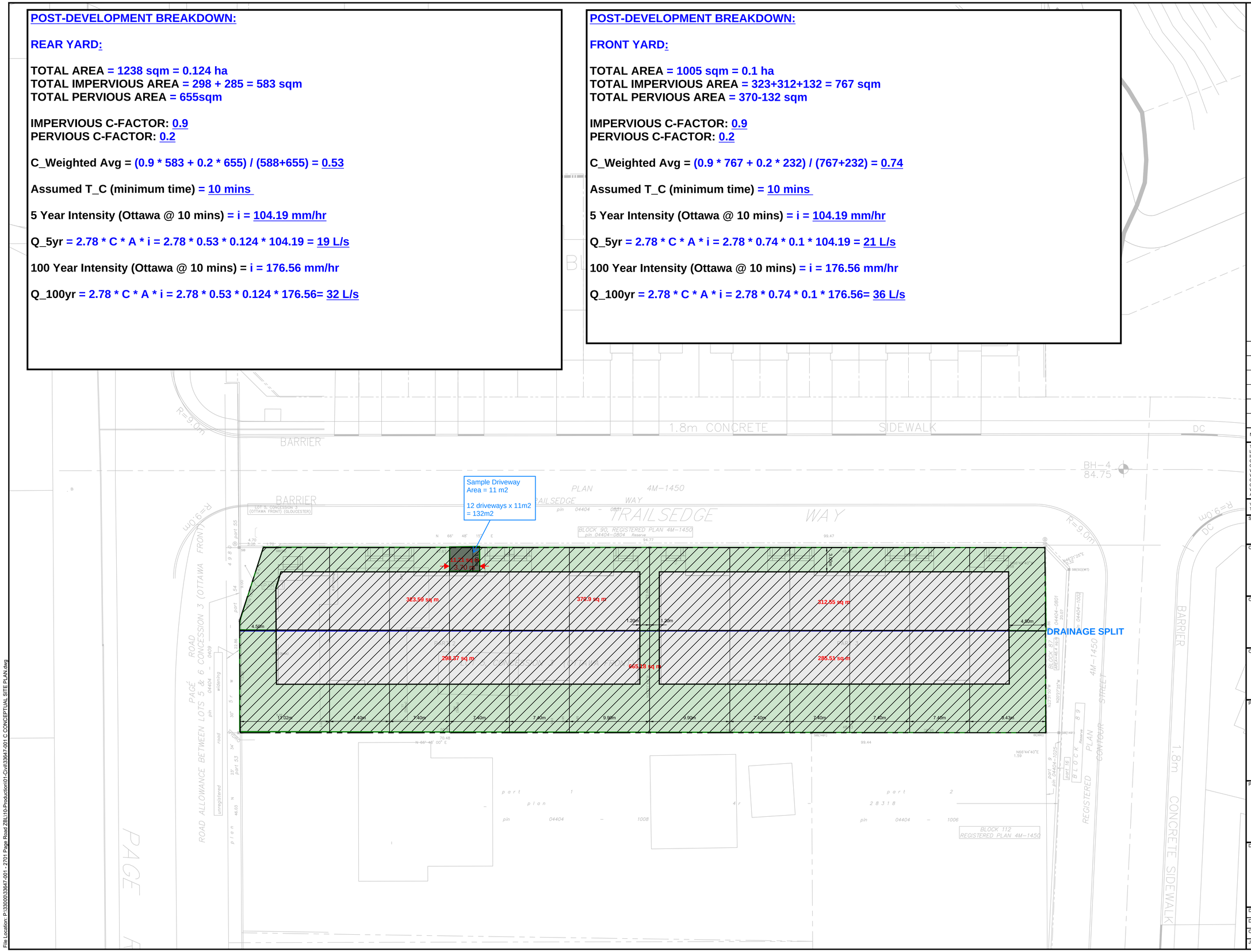
Assumed T_C (minimum time) = 10 mins

5 Year Intensity (Ottawa @ 10 mins) = i = 104.19 mm/hr

Q_5yr = 2.78 * C * A * i = 2.78 * 0.74 * 0.1 * 104.19 = 21 L/s

100 Year Intensity (Ottawa @ 10 mins) = i = 176.56 mm/hr

Q_100yr = 2.78 * C * A * i = 2.78 * 0.74 * 0.1 * 176.56= 36 L/s



No.	ISSUE / REVISION	DD/MM/YY
1	ISSUED FOR	XX/XX/XX

VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING. 0 25mm

SCALE: 1:200

CLIENT:

CONSULTANT: www.jlrichards.ca

J.L.Richards ENGINEERS · ARCHITECTS · PLANNERS

CONSULTANT:

PROFESSIONAL STAMP

PROJECT NORTH

PROJECT:

2701 PAGE ROAD

OTTAWA, ONTARIO

DRAWING:

CONCEPTUAL SITE PLAN

DESIGN: MM	
DRAWN: KC	DRAWING #: C0
CHECKED: MM	
JLR #: 33647-001	

File Location: P:\33000\33647-001 - 2701 Page Road ZBL\10-Production\01-Civil\33647-001 C CONCEPTUAL SITE PLAN.dwg

PLOT DATE: Wednesday, December 17, 2025 12:29:50 AM

have been assumed to be restricted to 85 L/s/ha prior to reaching the site's minor system. In addition, there is a possibility of building an access road to Cyrville /Navan Road complete with a second storm sewer outlet to the EUC Pond 3 in the future. As a result, runoff from the potential future area S125 and its associated restricted release rate to the minor system (26.8 L/s) have been accounted for in the major system analysis and the overall release rate from the site. **Table 4.1** shows a comparison between the drainage areas included in the EUC Servicing Study and the drainage areas from the proposed SWM design.

Table 4.1: Page Road Subdivision Drainage Area Comparison

Area	2005 EUC Servicing Study	Current SWM Design
Site Area to EUC Pond 1	1.77 ha @ C=0.67	2.03 ha @ C=0.59
Site Area + Future Residential Parcel to EUC Pond 1	1.98 ha @ C=0.67	2.24 ha @ C=0.59
Site Area to EUC Pond 3	4.57 ha @ C=0.67	4.53 ha @ C=0.57
Site Area + Future Residential Parcels to EUC Pond 3	4.94 ha @ C=0.67	4.90 ha @ C=0.57

Table 4.1 shows that the overall drainage area to the trunk sewer to the EUC Pond 1 from the site is slightly higher than outlined in the EUC ISS. As a result, the inflows to the minor system to the EUC Pond 1 from the site and future residential parcel will be over restricted to meet the overall target peak outflow of 168.3 L/s (1.98 ha x 85 L/s/ha). **Drawing SD-1** summarizes the discretized subcatchments used in the analysis of the Page Road subdivision, the contributing external areas, and outlines the major overland flow paths.

Table 4.2 and **Table 4.3** summarize the minor system inflow and major system sag storage and overflow results for the Page Road Subdivision and external areas during the 100 year, 6hr Chicago storm and the July 1st, 1979 storm respectively. **Appendices A2, A3 and A4** summarize the DDSWMM modeling results for the various storm events.

Table 4.2: Subdivision Major and Minor System 100 Year Storm Results

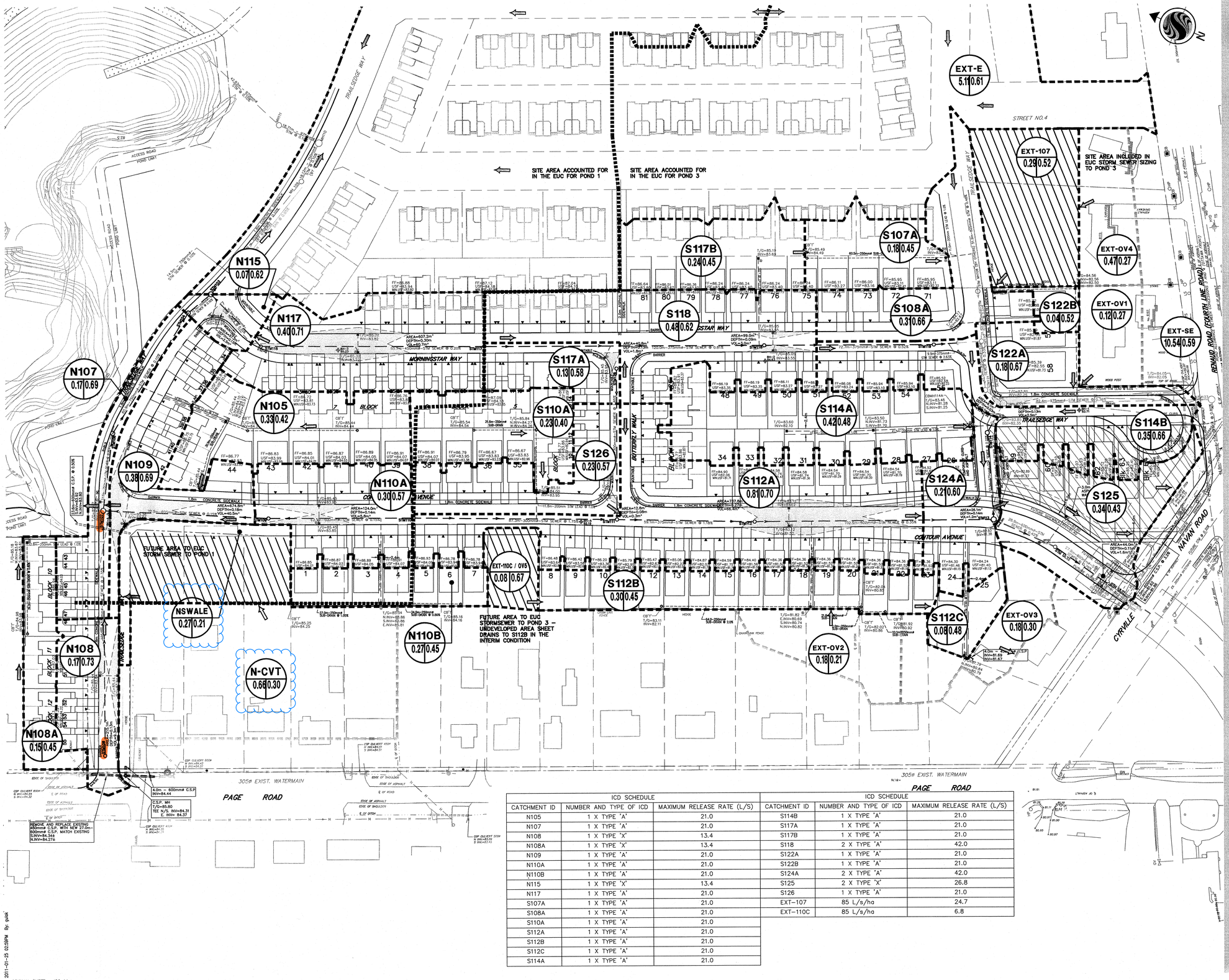
Segment[3]	Total Peak Flow (m^3/s)[1]	Ponding Depth (cm)	Maximum Capture (L/s)	Minor System Inlet	Maximum Storage Used (m^3)	Overflow Spill (m^3/s)
N105	0.077	14.51	21	106N	0	0.056
N107	0.352	11.14	21	107N	10.7	0.329
N108	0.061	4.8	13.4	108N	9.3	0.047
N108A	0.035	15.29	13.4	108N	0	0.021
N109	0.315	9.02	21	109N	29.8	0.294
N110A	0.084	5.41	21	110N	5.8	0.062
N110B	0.061	20.17	21	110N	0	0.040
N115	0.139	6.57	13.4	116N	0	0.123
N117	0.139	6.58	21	117N	60.7	0.118
NSWALE[2]	0.087	23.94	87.01	CVT-N	0	0.000

Segment[3]	Total Peak Flow (m^3/s)[1]	Ponding Depth (cm)	Maximum Capture (L/s)	Minor System Inlet	Maximum Storage Used (m^3)	Overflow Spill (m^3/s)
NCVT	0.084	11.47	0	NONE	0	0.063
S107A	0.083	15.04	21	107S	0	0.062
S108A	0.879	13.24	21	108S	0	0.857
S110A	0.059	12.87	21	110S	0	0.038
S112A	0.347	9.32	21	112S	66.4	0.325
S112B	0.106	26.31	21	112S	0	0.085
S112C	0.130	29	21	112S	0	0.109
S114A	0.107	16.79	21	114S	0	0.086
S114B	0.123	7.2	21	114S	0	0.101
S117A	0.038	4.6	21	117S	0	0.016
S117B	0.060	12.99	21	117S	0	0.039
S118	0.161	6.95	42	118S	3	0.118
S122A	0.117	7.05	21	122S	0	0.096
S122B	0.094	24.8	21	122S	0	0.073
S124A	0.872	13.2	42	113S	0	0.829
S125	0.841	13.01	26.8	ULT2	1.6	0.813
S126	0.093	6.44	21	126S	0.3	0.072
EXT-OV1	0.019	6.74	0	NONE	0	0.019
EXT-OV2	0.022	7.1	0	NONE	0	0.022
EXT-OV3	0.026	7.55	0	NONE	0	0.026
EXT-OV4	0.064	10.43	0	NONE	0	0.064
EXT-OV5	0.010	5.26	0	NONE	0	0.010
EXT-107[4]	0.063	20.43	24.65	107S	0	0.036
EXT-110C[4]	0.024	12.52	6.8	110S	0	0.016
EXT-E	1.427	15.92	433	107S	316.89	0.872
EXT-SE	2.683	20.76	895.9	123S	210.8	1.782

1. Total peak flow is equal to the sum of the runoff generated by the catchment plus the upstream overflow spill
2. The maximum capture at segment NSWALE represents the peak flow design for the proposed culvert crossing Trailsedge Way
3. The first letter of the segment name (N or S) represents whether the catchment is tributary to the minor system to EUC Pond 1, represented with an 'N', or to EUC Pond 3, represented with an 'S'
4. Minor system inflows from the future residential parcel EXT-107 and EXT-110C are tributary to the EUC Pond 3 and are included when calculating the actual release from the site

Table 4.3: Subdivision Major and Minor System July1st, 1979 Storm Results

Segment[3]	Total Peak Flow (m^3/s)[1]	Ponding Depth (cm)	Maximum Capture (L/s)	Minor System Inlet	Maximum Storage Used (m^3)	Overflow Spill (m^3/s)
N105	0.080	14.8	21.0	106N	0.0	0.059
N107	0.325	10.8	21.0	107N	10.7	0.302
N108	0.049	4.5	13.4	108N	9.3	0.036
N108A	0.037	15.7	13.4	108N	0.0	0.020
N109	0.299	8.8	21.0	109N	29.8	0.277
N110A	0.079	5.3	21.0	110N	5.8	0.058
N110B	0.064	20.7	21.0	110N	0.0	0.043
N115	0.111	6.1	13.4	116N	0.0	0.098



ICD SCHEDULE		
CATCHMENT ID	NUMBER AND TYPE OF ICD	MAXIMUM RELEASE RATE (L/S)
N105	1 X TYPE 'A'	21.0
N107	1 X TYPE 'A'	21.0
N108	1 X TYPE 'X'	13.4
N108A	1 X TYPE 'X'	13.4
N109	1 X TYPE 'A'	21.0
N110A	1 X TYPE 'A'	21.0
N110B	1 X TYPE 'A'	21.0
N115	1 X TYPE 'X'	13.4
N117	1 X TYPE 'A'	21.0
S107A	1 X TYPE 'A'	21.0
S108A	1 X TYPE 'A'	21.0
S110A	1 X TYPE 'A'	21.0
S112A	1 X TYPE 'A'	21.0
S112B	1 X TYPE 'A'	21.0
S112C	1 X TYPE 'A'	21.0
S114A	1 X TYPE 'A'	21.0

ICD SCHEDULE		
CATCHMENT ID	NUMBER AND TYPE OF ICD	MAXIMUM RELEASE RATE (L/S)
S114B	1 X TYPE 'A'	21.0
S117A	1 X TYPE 'A'	21.0
S117B	1 X TYPE 'A'	21.0
S118	2 X TYPE 'A'	42.0
S122A	1 X TYPE 'A'	21.0
S122B	1 X TYPE 'A'	21.0
S124A	2 X TYPE 'A'	42.0
S125	2 X TYPE 'X'	26.8
S126	1 X TYPE 'A'	21.0
EXT-107	85 L/s/ha	24.7
EXT-110C	85 L/s/ha	6.8

Stantec Consulting Ltd.
1505 Laperriere Avenue
Ottawa ON Canada
K1Z 7T1
Tel. 613.722.4420
Fax. 613.722.2799
www.stantec.com

Stantec

Legend

- A3 / 4.61 / 0.56 — DRAINAGE AREA NO. / RUNOFF COEFFICIENT / STORM DRAINAGE AREA (ha)
- DRAINAGE DIVIDE
- DRAINAGE DIVIDE (INTERIM CONDITION) MAJOR SYSTEM ONLY
- PROPOSED STORM SEWER
- PROPOSED CATCH BASIN
- PROPOSED CATCH BASIN C/W ICD TYPE 'A'
- PROPOSED CATCH BASIN C/W ICD TYPE 'X'
- TYPICAL SERVICE LATERAL LOCATION
- EXISTING STORM SEWER
- EXISTING CATCH BASIN
- DIRECTION OF OVERLAND FLOW
- PONDING AREA
- EUC BOUNDARY POND 1/3

Notes

1) AREAS N-CVT, EXT-OV1, EXT-OV2, EXT-OV3, EXT-OV4 SHEET DRAIN TOWARDS THE SITE UNDER EXISTING CONDITIONS (INTERIM CONDITIONS). AREAS ARE USED ONLY TO EVALUATE SITE'S MAJOR SYSTEM.

2) AREA EXT-SE WAS ASSUMED TO PROVIDE 20 CU.M./HA OF SURFACE STORAGE AND WAS USED TO EVALUATE THE SITE'S MINOR SYSTEM AT 85L/S/HA.

3) CATCHBASINS TO BE EQUIPPED WITH EITHER ICD TYPE 'A' OR ICD TYPE 'X' AS SHOWN.
TYPE 'A' Q=21L/s, HEAD=1.5m.
TYPE 'X' Q=13.4L/s, HEAD=1.5m.

4) AREA N110B INCLUDES REAR YARD AREA FROM THE FUTURE DASHED AREA TO POND 1.

5) NSWALE AND N-CVT WERE USED TO SIZE THE CULVERT THAT CROSSES TRAILSEDGE WAY AND CONVEYS RUNOFF FROM THESE AREAS IN THE INTERIM CONDITION.

6) AREA EXT-E, AS OBTAINED FROM IBI GROUP USED TO EVALUATE THE SITE'S MINOR SYSTEM AT 85L/S/HA.

7) MAJOR FLOW HYDROGRAPHS FROM AREA EXT-E WAS READ IN DDSWMM AS OBTAINED FROM IBI GROUP.

3	REVISED AS PER NEW SITE PLAN	MJS	TJW	11.01.12
2	REVISED AS PER CITY COMMENTS	MJS	AMP	10.06.22
1	ISSUED FOR REVIEW	MJS	AMP	10.04.08
Revision		By	Appd.	YY.MM.DD
File Name: 160400477		DCT	TJW	AMP 09.06.15
		Dwn.	Chkd.	Dsgn. YY.MM.DD

Permit-Seal

LICENSED PROFESSIONAL ENGINEER P. MOROZ JAN 25,2011 PROVINCE OF ONTARIO

Client/Project

RICHCRAFT HOMES

PAGE ROAD DEVELOPMENT

Ottawa ON Canada

Title

STORM DRAINAGE PLAN

Project No.	Scale				
160400477	1:750	0	7.5	22.5	37.5m
Drawing No.	Sheet			Revision	
SD-1	17 of 18			3	

2011-01-25 02:59PM By: gvaik

ORIGINAL SHEET – ISO A1

Stantec

SUBDIVISION: Page Road Development Richcraft Homes

DATE: February 11, 2008
REVISION: January 18, 2011
DESIGNED BY: DT
CHECKED BY: AMP

STORM SEWER DESIGN SHEET

(City of Ottawa)

FILE NUMBER: 604-00477

DESIGN PARAMETERS

$I = a / (b + t_c)^c$

	5yr	10yr
a =	998.071	1174.184
b =	6.053	6.014
c =	0.814	0.816

2004 Ottawa Sewer Design Guidelines
MANNING'S n = 0.013
MINIMUM COVER: 2.00 m
TIME OF ENTRY 15 min

LOCATION	FROM M.H.	TO M.H.	DRAINAGE AREA: AREA (ha)	C	ACCUM. AREA (ha)	A x C (ha)	ACCUM. AxC (ha)	T of C (min)	I (mm/h)	Q (L/s)	PIPE SELECTION: LENGTH (m)	PIPE SIZE (mm)	SLOPE %	CAP. (FULL) (L/s)	CAP. AVAIL. (%)	VEL. (FULL) (m/s)	(ACT) (m/s)	TIME OF FLOW (min)
Northern System to SWM Pond 1 (EUC)																		
Trailsedge Way (N108, N108A)	108	107	0.32	0.60	0.32	0.19	0.19	15.00	83.56	44.5	105.0	375	0.35	108.6	59%	0.95	0.90	1.95
								16.95										
Contour Avenue (N110A, N110B)	110	109	0.57	0.51	0.57	0.29	0.29	15.00	83.56	67.9	62.1	600	0.15	250.5	73%	0.86	0.70	1.47
Contour Avenue (N109)	109	107	0.38	0.69	0.95	0.26	0.55	16.47	79.09	121.9	70.9	600	0.15	246.5	51%	0.84	0.84	1.41
								17.88										
Trailsedge Way (N107)	107	106	0.17	0.69	1.44	0.12	0.86	17.88	75.27	180.6	33.6	750	0.30	633.6	72%	1.39	1.18	0.47
Trailsedge Way (N105)	106	104	0.33	0.42	1.77	0.14	1.00	18.36	74.07	206.2	60.9	750	0.10	364.6	43%	0.80	0.82	1.23
Trailsedge Way	104	103			1.77	0.00	1.00	19.59	71.16	198.1	12.7	750	0.16	460.9	57%	1.01	0.96	0.22
								19.81										
Morningstar Way (N117)	117	116	0.40	0.71	0.40	0.28	0.28	15.00	83.56	65.9	95.7	450	0.20	132.5	50%	0.81	0.80	2.00
Morningstar Way (N115)	116	103	0.07	0.62	0.47	0.04	0.33	17.00	77.62	70.6	30.9	525	0.20	201.0	65%	0.90	0.81	0.64
								17.63										
Trailsedge Way	103	Ex. Stub			2.24	0.00	1.33	19.81	70.67	261.0	14.5	750	0.10	373.6	30%	0.82	0.89	0.27
								20.08										

Return Frequency	A	B	C
2 yr	732.951	0.810	6.199
5 yr	998.071	0.814	6.053
10 yr	1174.184	0.816	6.014
25 yr	1402.884	0.819	6.018
50 yr	1569.580	0.820	6.014
100 yr	1735.688	0.820	6.014

$Q = 2.78\ CIA$

$I = (A / T_c + C)^B$

Where Q = peak flow (L/s)
A = area (ha)
I = rainfall intensity (mm/hr)
C = runoff coefficient
T_c = time of concentration (min)

Table A.1
PRELIMINARY STORM SEWER DESIGN SHEET
BRIAN COBURN BOULEVARD - ULTIMATE CONDITIONS
POND 1 OUTLET

IDF - Macdonald-Cartier Airport, 1967-1997
RCI_STM v1.02 (130204)

Project Information			
Project Name	Brian Coburn Boulevard		
File No.	13026	Contract No.	n/a
	Name	Company	Date
Design	DJMR	RCI	Oct 27/15
Check	GB	RCI	Oct 27/15

Revisions			
No.	Description	By	Date
1	Issued for MOECC ECA Approval	DJMR	Oct 27/15

Robinson Consultants

LOCATION					CATCHMENT AREA										FLOW DATA									SEWER DATA										ELEVATION DATA					
					5-Year Design Storm				10-Yr Design Storm				25-Yr Design Storm													PHYSICAL PROPERTIES						FLOW & VELOCITY DATA				UPSTREAM			DOWNSTREAM		
DRAINAGE AREA	LOCATION	PIPE ID	U/S MH ID	D/S MH ID	Area A (ha)	C	Individual 2.78 AC	Accum. 2.78 AC	Area A (ha)	C	Individual 2.78 AC	Accum. 2.78 AC	Area A (ha)	C	Individual 2.78 AC	Accum. 2.78 AC	Time of Concentration T_c (min)	Rainfall Intensity 5-Yr I_{5yr} (mm/hr)	Rainfall Intensity 10-Yr I_{10yr} (mm/hr)	Rainfall Intensity 25-Yr I_{25yr} (mm/hr)	Peak Flow 5-Yr Q_{5yr} (L/s)	Peak Flow 10-Yr Q_{10yr} (L/s)	Peak Flow 25-Yr Q_{25yr} (L/s)	Fixed Flow Contribution Q_{fc} (L/s)	Total Peak Flow Q_{total} (L/s)	Material Type	Roughness Coefficient (n)	Nominal Diameter (mm)	Actual Diameter (mm)	Slope (%)	Length (m)	Capacity Q_{full} (L/s)	Full Flow Velocity (m/s)	Time of Flow (min)	Q/Q_{full}	Invert (m)	Approx. Surface Elev. (m)	Approx. Cover to Obvert (m)	Invert (m)	Approx. Surface Elev. (m)	Approx. Cover to Obvert (m)
Brian Coburn Boulevard (12+661 to Pond 1 Outlet Junction)																																							
107	Brian Coburn Blvd		MH104	MH105			0.00	0.00	0.540	0.65	0.97	0.97			0.00	0.00	10.00	104.19	122.14	144.69	0.00	118.63	0.00	0.00	118.63		0.013	900	914	0.12	100.00	653.46	1.00	1.67	0.18	83.409	86.030	1.721	83.289	85.950	1.761
108	Brian Coburn Blvd		MH105	MH106			0.00	0.00	0.457	0.65	0.82	1.79			0.00	0.00	11.67	96.11	112.63	133.38	0.00	201.97	0.00	0.00	201.97		0.013	900	914	0.10	85.00	596.53	0.91	1.56	0.34	83.289	85.950	1.761	83.204	85.770	1.666
109	Brian Coburn Blvd		MH106	MH107			0.00	0.00	0.457	0.65	0.82	2.62			0.00	0.00	13.23	89.74	105.13	124.47	0.00	274.94	0.00	0.00	274.94		0.013	900	914	0.10	120.00	596.53	0.91	2.20	0.46	83.204	85.770	1.666	83.084	85.670	1.686
110	Brian Coburn Blvd		MH107	MH108			0.00	0.00	0.421	0.65	0.76	3.37			0.00	0.00	15.43	82.19	96.24	113.92	0.00	324.58	0.00	0.00	324.58		0.013	900	914	0.10	83.00	596.53	0.91	1.52	0.54	83.084	85.670	1.686	83.001	85.560	1.659
Brian Coburn Boulevard (14+750 to Pond 1 Outlet Junction)																																							
111	Brian Coburn Blvd		MH126	MH125			0.00	0.00	0.560	0.65	1.01	1.01			0.00	0.00	10.00	104.19	122.14	144.69	0.00	123.60	0.00	0.00	123.60		0.013	900	914	0.20	90.00	843.62	1.29	1.17	0.15	85.880	88.930	2.150	85.700	88.750	2.150
112	Brian Coburn Blvd		MH125	MH124			0.00	0.00	0.573	0.65	1.03	2.04			0.00	0.00	11.17	98.41	115.33	136.60	0.00	235.57	0.00	0.00	235.57		0.013	900	914	0.20	120.00	843.62	1.29	1.56	0.28	85.700	88.750	2.150	85.460	88.410	2.050
113	Brian Coburn Blvd		MH124	MH123			0.00	0.00	0.192	0.65	0.35	2.39			0.00	0.00	12.72	91.72	107.46	127.24	0.00	256.59	0.00	0.00	256.59		0.013	900	914	0.20	120.00	843.62	1.29	1.56	0.30	85.460	88.410	2.050	85.220	88.140	2.020
114	Brian Coburn Blvd		MH123	MH122			0.00	0.00	0.226	0.65	0.41	2.79			0.00	0.00	14.28	85.97	100.69	119.20	0.00	281.35	0.00	0.00	281.35		0.013	900	914	0.20	60.00	843.62	1.29	0.78	0.33	85.220	88.140	2.020	85.100	88.310	2.310
115	Brian Coburn Blvd		MH122	MH121			0.00	0.00	0.357	0.65	0.64	3.44			0.00	0.00	15.06	83.38	97.64	115.58	0.00	335.55	0.00	0.00	335.55		0.013	975	991	0.20	60.00	1046.69	1.36	0.74	0.32	85.025	88.310	2.310	84.905	88.080	2.200
116	Brian Coburn Blvd		MH121	MH120			0.00	0.00	0.372	0.65	0.67	4.11			0.00	0.00	15.79	81.08	94.94	112.37	0.00	389.79	0.00	0.00	389.79		0.013	975	991	0.20	60.00	1046.69	1.36	0.74	0.37	84.905	88.080	2.200	84.785	87.860	2.100
117	Brian Coburn Blvd		MH120	MH119			0.00	0.00	0.446	0.65	0.81	4.91			0.00	0.00	16.53	78.92	92.40	109.36	0.00	453.83	0.00	0.00	453.83		0.013	975	991	0.20	120.00	1046.69	1.36	1.47	0.43	84.785	87.860	2.100	84.545	87.720	2.200
118	Brian Coburn Blvd		MH119	MH118			0.00	0.00	0.202	0.70	0.39	5.30			0.00	0.00	18.00	74.96	87.75	103.83	0.00	465.47	0.00	0.00	465.47		0.013	975	991	0.20	54.00	1046.69	1.36	0.66	0.44	84.545	87.720	2.200	84.437	87.830	2.418
119	Brian Coburn Blvd		MH118	MH117			0.00	0.00	0.421	0.75	0.88	6.18			0.00	0.00	18.67	73.32	85.82	101.54	0.00	530.56	0.00	0.00	530.56		0.013	1050	1067	0.20	67.00	1274.66	1.43	0.78	0.42	84.362	87.830	2.418	84.228	87.590	2.312
120	Belcourt		Stub	MH130			0.00	0.00	0.212	0.65	0.38	0.38			0.00	0.00	10.00	104.19	122.14	144.69	0.00	46.79	0.00	0.00	46.79		0.013	450	457	0.50	28.00	210.07	1.28	0.36	0.22	85.058	88.132	2.624	84.918	87.940	2.572
121	Belcourt/BCB		MH130	MH117			0.00	0.00	0.083	0.75	0.17	0.56			0.00	0.00	10.36	102.31	119.92	142.05	0.00	66.69	0.00	0.00	66.69		0.013	600	610	0.20	45.00	286.97	0.98	0.76	0.23	84.768	87.940	2.572	84.678	87.590	2.312
122	Brian Coburn Blvd		MH117	MH116			0.00	0.00	0.305	0.70	0.59	7.33			0.00	0.00	19.45	71.48	83.66	98.97	0.00	613.39	0.00	0.00	613.39		0.013	1050	1067	0.20	120.00	1274.66	1.43	1.40	0.48	84.228	87.590	2.312	83.988	87.170	2.132
123	Brian Coburn Blvd		MH116	MH115			0.00	0.00	0.613	0.65	1.10	8.43			0.00	0.00	20.85	68.43	80.08	94.72	0.00	675.41	0.00	0.00	675.41		0.013	1050	1067	0.15	120.00	1103.89	1.23	1.62	0.61	83.988	87.170	2.132	83.808	87.000	2.142
124	Brian Coburn Blvd		MH115	MH114			0.00	0.00	0.573	0.65	1.03	9.47			0.00	0.00	22.47	65.25	76.34	90.29	0.00	722.58	0.00	0.00	722.58		0.013	1050	1067	0.15	120.00	1103.89	1.23	1.62	0.65	83.808	87.000	2.142	83.628	86.770	2.092
125	Brian Coburn Blvd		MH114	MH113			0.00	0.00	0.573	0.65	1.03	10.50			0.00	0.00	24.09	62.38	72.97	86.29	0.00	765.89	0.00	0.00	765.89		0.013	1050	1067	0.15	120.00	1103.89	1.23	1.62	0.69	83.628	86.770	2.092	83.448	86.440	1.942
126	Brian Coburn Blvd		MH113	MH112			0.00	0.00	0.447	0.65	0.80	11.30			0.00	0.00	25.71	59.78	69.92	82.66	0.00	790.04	0.00	0.00	790.04		0.013	1200	1219	0.15	120.00	1574.57	1.35	1.48	0.50	83.298	86.440	1.942	83.118	86.100	1.782
127	Brian Coburn Blvd		MH111	MH111			0.00	0.00	0.126	0.66	0.23	11.53			0.00	0.00	27.20	57.60	67.36	79.63	0.00	776.67	0.00	0.00	776.67		0.013	1200	1219	0.15	60.00	1574.57	1.35	0.74	0.49	83.118	86.100	1.782	83.028	86.180	1.952
128	Brian Coburn Blvd		MH111	MH110			0.00	0.00	0.271	0.65	0.49	12.02			0.00	0.00	27.94	56.58	66.16	78.20	0.00	795.05	0.00	0.00	795.05		0.013	1200	1219	0.15	60.00	1574.57	1.35	0.74	0.50	83.028	86.180	1.952	82.938	85.920	1.782
129	Brian Coburn Blvd		MH110	MH109			0.00	0.00	0.479	0.65	0.86	12.88			0.00	0.00	28.68	55.59	65.00	76.83	0.00	837.16	0.00	0.00	837.16		0.013	1200	1219	0.15	120.00	1574.57	1.35	1.48	0.53	82.938	85.920	1.782	82.758	85.710	1.752
130	Brian Coburn Blvd		MH109	MH108			0.00	0.00	0.000	0.65	0.00	12.88			0.00	0.00	30.16	53.73	62.82	74.24	0.00	809.06	0.00	0.00	809.06		0.013	1200	1219	0.15	38.00	1574.57	1.35	0.47	0.51	82.758	85.710	1.752	82.701	85.560	1.659
Pond 1 Outlet Junction to Pond 1 Outlet																																							
131	Brian Coburn Blvd		MH108	MH127			0.00	0.00	0.000	0.65	0.00	16.25			0.00	0.00	30.63	53.17	62.16	73.46	0.00	1010.23	0.00	0.00	1010.23		0.013	1050	1067	0.30	5.80	1561.13	1.75	0.06	0.65	82.641	85.560	1.869	82.624	85.760	2.086
132	Brian Coburn Blvd		MH127	MH128			0.00	0.00	0.000	0.65	0.00	16.25			0.00	0.00	30.68	53.11	62.08	73.37	0.00	1008.99	0.00	0.00	1008.99		0.013	1050	1067	0.30	12.10	1561.13	1.75	0.12	0.65	82.624	85.760	2.086	82.588	85.580	1.942
133	Brian Coburn Blvd		MH128	MH129			0.00	0.00	0.000	0.65	0.00	16.25			0.00	0.00	30.80	52.97	61.93	73.18	0.00	1006.40	0.00	0.00	1006.40		0.013	1050	1067	0.30	9.20	1561.13	1.75	0.09	0.64	82.528	85.580	2.002	82.500	85.590	2.040
134	Brian Coburn Blvd		MH129	Stub			0.00	0.00	0.000	0.65	0.00	16.25			0.00	0.00	30.89	52.87	61.80	73.04	0.00	1004.45	0.00	0.00	1004.45		0.013	1650	1676	0.10	5.40	3004.95	1.36	0.07	0.33	80.116	85.590	3.824	80.111	85.650	3.889
135	Brian Coburn Blvd		Stub	Outlet			0.00	0.00	0.000	0.65	0.00	16.25			0.00	0.00	30.95	52.79	61.71	72.93	0.00	1002.98	0.00	0.00	1002.98		0.013	1650	1676	0.10	10.70	3004.95	1.36	0.13	0.33	80.111	85.650	3.889	80.100	81.750	0.000
Page Road (South Turning Basin to Pond 1 Main Cell Ex. Outlet)																																							
136	Page Road		Culv	MH133	1.603	0.55	2.45	2.45			0.00	0.00			0.00	0.00	10.00	104.19	122.14	144.69	255.38	0.00	0.00	0.00	255.38		0.024	500	500	2.84	21.50	344.68	1.76	0.20	0.74	84.690	85.900	0.710	84.080	85.600	1.020
137	Page Road		MH133	ex MH	0.206	0.75	0.43	2.88			0.00	0.00			0.00	0.00	10.20	103.13	120.89	143.20	297.06	0.00	0.00	0.00	297.06		0.013	600	610	0.31	91.00	357.27	1.22	1.24	0.83	81.375	85.600	3.615	81.090	83.650	1.960
Brian Coburn Boulevard (14+750 to Mer Bleue Storm Sewer)																																							
138	Brian Coburn Blvd		MH131	MH132			0.00	0.00	0.378	0.65	0.68	0.68			0.00	0.00	15.00	83.56	97.85	115.83	0.00	66.84	0.00	0.00	66.84		0.013	450	457	0.20	65.00	132.86	0.81	1.34	0.50	86.128	88.860	2.282	85.998	88.470	2.022
139	Brian Coburn Blvd		MH132	ex Stub			0.00	0.00	0.585	0.65	1.06	1.74			0.00	0.00	16.34	79.47	93.05	110.12	0.00	161.91	0.00	0.00	161.91		0.013	525	533	0.25	78.00	223.88	1.00	1.30	0.72	85.923	88.470	2.022	85.729	88.150	1.896

NAVAN ROAD

BRIAN COBURN BOULEVARD

EXISTING STORM SEWER

MH100

MH101

MH102

MH103

MH104

MH105

MH106

MH107

CBMH133

A107 0.65 0.540

A108 0.65 0.457

A109 0.65 0.457

A110 0.65 0.421

A137 0.75 0.206

A136 0.55 1.603

LEGEND

DRAINAGE BOUNDARY

DRAINAGE AREA NAME

A20 R4 0.31 ha

RUNOFF COEFFICIENT

AREA

Robinson Consultants

CONSULTING ENGINEERS

350 PALLADIUM DRIVE
KANATA, ONTARIO K2V 1A8
TELEPHONE (613) 592-6060

Ottawa

BRIAN COBURN BOULEVARD

ROAD WIDENING

ISD14-5104

ULTIMATE STORM SEWER
POND 1 OUTLET
DRAINAGE AREA

PROJECT:	RCI - 13026
SCALE	1:1750
DATED	OCT 2015
FIGURE No.	1.A

Appendix F

Conceptual Grading and Servicing Plans

LEGEND

Re-aligned existing ditch on ROW

No.	ISSUE / REVISION	DD/MM/YY
1	ISSUED FOR	XX/XX/XX

VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING. 0 25mm

SCALE: 1:200

CLIENT:

CONSULTANT: www.jlrichards.ca

J.L.Richards ENGINEERS · ARCHITECTS · PLANNERS

CONSULTANT:

PROFESSIONAL STAMP

PROJECT NORTH

PROJECT:

2701 PAGE ROAD

OTTAWA, ONTARIO

DRAWING:

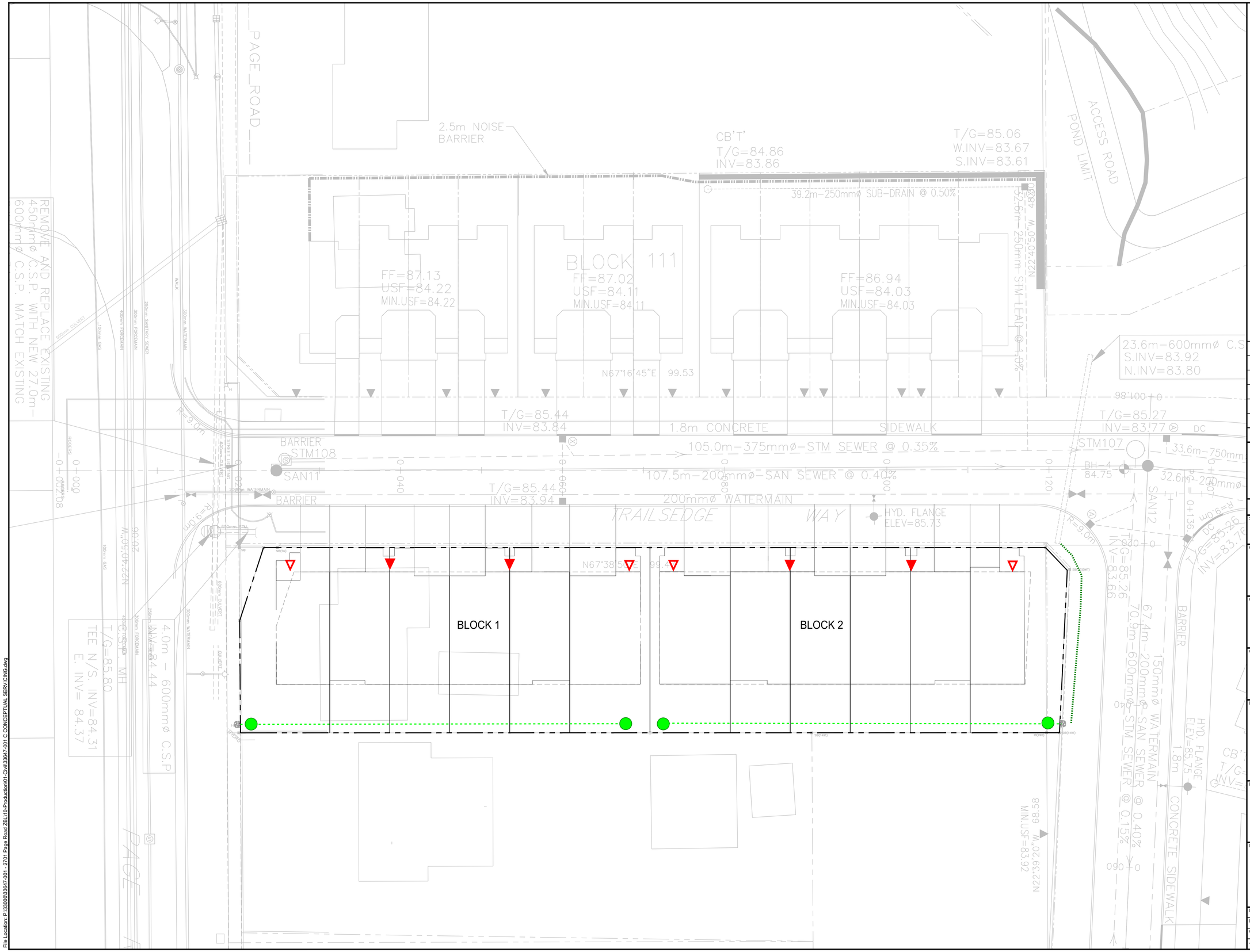
CONCEPTUAL GRADING

DESIGN:	MM
DRAWN:	KC
CHECKED:	MM
JLR #:	33647-001

DRAWING #: CG1

File Location: P:\33000\33647-001 - 2701 Page Road ZBL\10-Production\01-Civil\33647-001 C CONCEPTUAL GRADING.dwg

PLOT DATE: Thursday, December 18, 2025 1:37:10 PM



LEGEND

- Typical 3-Town Service 1 x (SAN, WM, STM)
- Typical 2 x 3-Town Service 2 x (SAN, WM, STM)
- Rear Yard Catch Basin Per City of Ottawa S29
- Rear Yard Pipe Per City of Ottawa S29
- Rip-Rap for Pipe Outlet
- Re-aligned existing ditch on ROW

No.	ISSUE / REVISION	DD/MM/YY
1	ISSUED FOR AAPS	22/12/25

VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING. 0 25mm

SCALE: 1:200

CLIENT:

CONSULTANT: www.jlrichards.ca

J.L.Richards ENGINEERS · ARCHITECTS · PLANNERS

CONSULTANT:

PROFESSIONAL STAMP

PROJECT NORTH

PROJECT:

2701 PAGE ROAD

OTTAWA, ONTARIO

DRAWING:

CONCEPTUAL SERVICING

DESIGN:	MM
DRAWN:	KC
CHECKED:	MM
JLR #:	33647-001

DRAWING #: CS1

File Location: P:\33000\33647-001 - 2701 Page Road ZBL\10-Production\01-Civil\33647-001 C CONCEPTUAL SERVICING.dwg

PLOT DATE: Thursday, December 18, 2025 8:45:02 AM