



FUNCTIONAL SERVICING REPORT

FOR THE PROPERTY LOCATED AT

8605 PROMENADE CAMPEAU DRIVE, OTTAWA, ON



PETRO-CANADA

Prepared By:

J+B Engineering Inc.
25 Centurian Drive, Suite 201
Markham, Ontario
L3R 5N8

Revised March 17, 2023



Functional Servicing Report

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1. INTRODUCTION

1.1 Study Area

The study area is an undeveloped area with approximate size of 0.907ha located at south-east quadrant of Palladium and Campeau Dr. intersections. The civic address for this property is 8605 Promenade Campeau Dr, Ottawa, Ontario and is shown in FIGURE 1.

This study has been prepared on behalf of Suncor Energy Products to address the servicing requirements of the site which includes water, sanitary and storm development located in Ottawa, Ontario.

2. BACKGROUND

2.1 Background Information

The proposed development is within the Kanata West Business Park, previous design brief for Kanata West Business Park (KWBP) – Phase 5, 425 Huntmar Drive, prepared by IBI dated September 2019, was obtained and reviewed prior to the preparation of this Servicing Report.

2.2 Land Use

The existing study area is undeveloped with no service connections into city infrastructure. The client intends to develop the parcel of land by a single storey commercial building, pump islands and associated canopy, underground storage tanks and a car wash.

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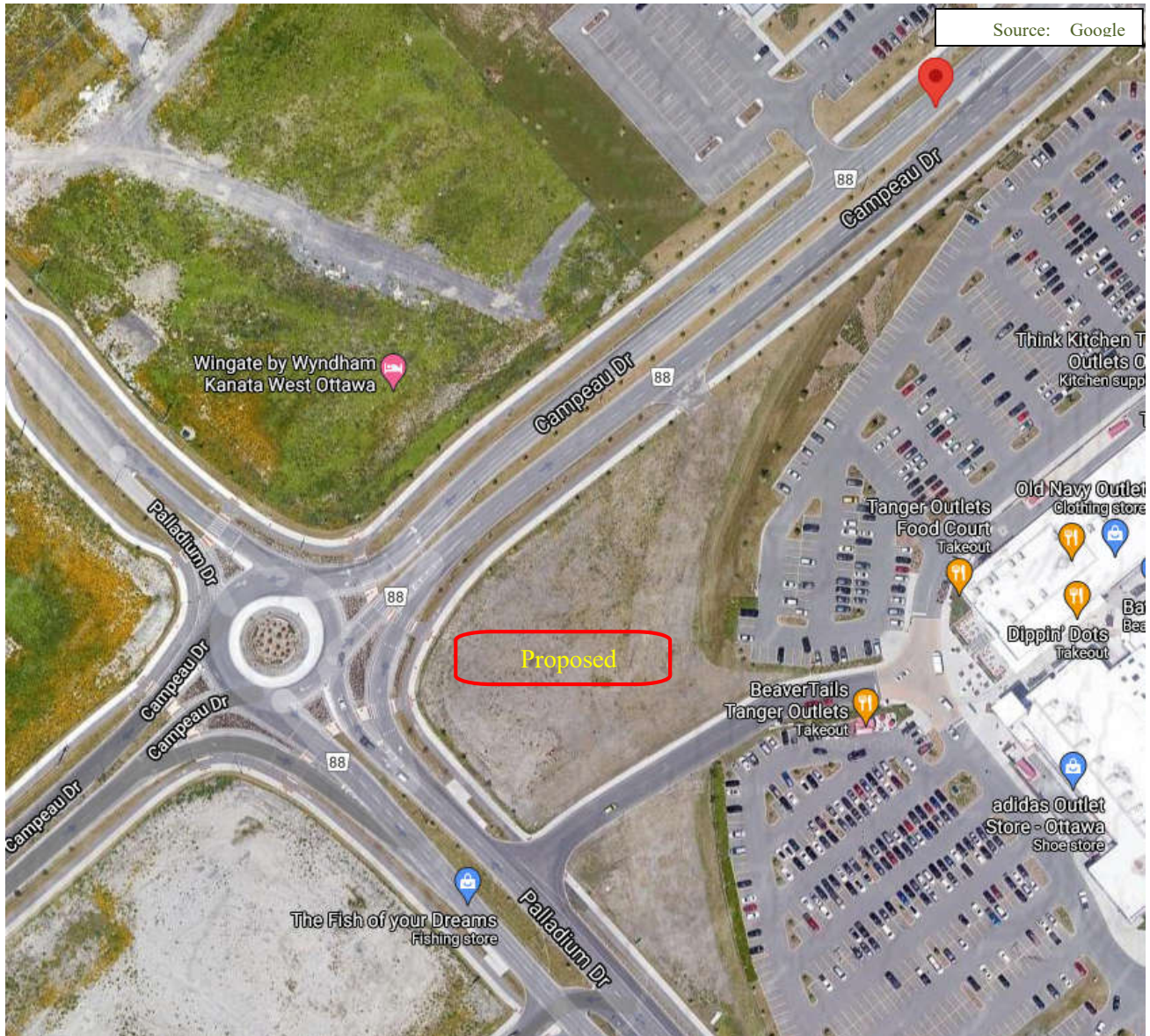


Figure 1 Study Area

3. WATER SUPPLY AND APPURTENANCES

3.1 Water Supply Existing

The existing parcel does not have water service, however, based on Figure 4 of KWBP – Phase 5 Design Brief, there is an existing 200mm PVC watermain servicing the Tanger Outlet along the Tanger Mall driveway entrance teeing off a 250mm watermain along Palladium Drive. Additionally, there is also a 300mm PVC watermain located along Campeau Dr. north of the subject property.



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3.2 Water Supply Proposed

The development is proposed to be serviced by a single connection via 100mm diameter water service connected to the 300mm watermain along Campeau Dr. (Refer to servicing plan in the appendix A). This has been confirmed with the City plans examiner (Refer to email correspondence attached in Appendix I)

To calculate the peak flow water demand, the following design criteria have been utilized:

- Fixture units to gal/min based on OBC table no. 7.4.10.5
- Assuming 9.5 l/s water demand for car wash based on historical data for similar type of car washes.

The domestic water calculations for the proposed development are summarized in the Table 3-1 below. (Refer to Appendix B for calculations.)

Average Day Demand	Max. Daily Demand (1.5x avg. day)	Peak Hourly Demand (1.8 x avg. day)
l/s	l/s	l/s
4.48	6.73	12.11

Table 3-1: Domestic Water Demand

Based on the above parameters the fire flow demand for the proposed development is calculated as 5,500 l/m (100 l/s). (Refer to calculation in the Appendix C)

The city of Ottawa was contacted to obtain the boundary conditions associated with the estimated water demand, as indicated in the boundary request correspondence located in Appendix D.

As per Table 3-1, the average day demand is 4.48 l/s (387m³/d), therefore, the subject property is proposed to be serviced by a 100mm dia. PVC pipe connected to the existing 300mm watermain along Campeau Dr as per previous discussions with the City.

The Carwash will be serviced via 100mm PVC DR18 pipe and a water meter will be located within the carwash as per City std. This connection will continue to feed the C-store downstream.

3.3 Fire flow Calculation

The fire flow requirement for the proposed development is calculated using FUS (Fire Underwriters Survey) method adopting following design parameters.

- Type of construction – Ordinary Construction
- Occupancy Hazard – Combustible
- Automatic Sprinkler – No

The subject property will be serviced by the existing fire hydrants located along Campeau Drive right of way (ROW) approximately 69.0m from the furthest corner of the proposed C-store and 53m from the proposed carwash building and another existing fire hydrant along Palladium Dr. right of way (ROW)



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approximately 90m from the furthest corner of the C-store. No additional fire hydrants are required for the proposed development.

4. SANITARY SEWAGE SYSTEM

4.1 Existing Sanitary Sewage System

Under existing conditions there is currently no sanitary service connection or a septic system for the subject property as the lot is not being used or serviced. There is an existing 300mm sanitary pipe along Campeau Dr. fronting the proposed development. Based on section 3.1 of KWBP – Phase 5 Design Brief, this sewer will be used for outlets for KWBP - Phase 5 lands.

4.2 Proposed Sanitary Sewage System

The proposed development will connect to the existing 300 mm sanitary service located on Campeau Dr. and is consistent with the calculations and Dwg #501 provided in Appendix B of KWBP – Phase 5 Design Brief. The site will be serviced by a 250mm connection. Refer to the site servicing drawing P-301 in Appendix A.

Our findings and conclusions for the sanitary servicing are as follows:

- The anticipated sanitary peak flow for the entire development is 9.611 l/s. For calculation see Appendix E.
- Sanitary servicing for the proposed development will consist of one (x1) 250mm diameter sanitary lateral to the existing sanitary MH located on Campeau Dr. which discharges into an existing 300mm sanitary sewer running along Campeau Dr. and is consistent with KWBP – Phase 5 Design Brief. A sanitary sewer design sheet for the proposed development is presented in Appendix E.



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5. STORM DRAINAGE SYSTEM

A Stormwater Management Report for this development has been prepared under a separate cover. It identifies the stormwater quantity and quality controls under which this site will operate to comply with the City's Design Criteria.

5.1 Existing Condition

The subject property is approximately 0.907ha in size and is currently undeveloped with no storm infrastructure in place. Based on existing topography, the site drains in the southeast direction into an existing conveyance swale and eventually towards the Tanger Mall Outlet parking lot.

In addition, there is external flow from an adjacent landscape area approximately 0.26ha in size which is conveyed via existing drainage swales and a 600mm dia. culvert located along south property limits. Refer to Drainage Plan P-303 for reference.

5.2 Minor Storm Drainage System

According to the Design Brief - Kanata West Business Park (KWBP) – Phase 5, 425 Huntmar Drive report prepared by IBI, the subject property is part of the overall development and is identified with Area ID 135A (Table 4.2). This parcel is designed such that the runoff is discharged to Pond 6 East (Figure 1 of KWBP – Phase 5 Design Brief) located to the east of the Tanger Mall Outlet and will provide both quantity and quality treatment control Plan. The allowable release rate for the site, as per Table 4.2 of Design Brief - KWBP – Phase 5, September 2019, the subject site (Area #135 A) has a contribution area of 1.12 ha with an established allowable release rate of 257 l/s and storage requirement of 111m³.

However, the runoff coefficient and the area for the subject site differs from the KWBP Phase 5 Design Brief, detailed calculations have been carried out using the “Modified Rational Method” to establish the 5yr allowable release rate at 0.0525 m³/s using a conservative runoff coefficient of C=0.2. A sanitary sewer design sheet for the proposed development is presented in Appendix F.

5.3 Major Storm Drainage System

The major storm system is a conveyance system for flows in excess of the minor system flows. For the development of this site, the grading design will be prepared such that the surface (i.e., roads and landscaped areas) grades will direct surface drainage away from the buildings to approved outlets, such as the adjoining public rights-of-way.

5.4 Culvert Assessment

The existing 47.0m long x 600mm diameter CSP culvert crossing the Tanger Outlet entrance will be replaced with new 27.5m long 300mm diameter reinforced concrete culvert. Based on the calculations the existing 600mm size culvert was oversized and a new 300mm diameter culvert is adequate to convey the proposed flows from the adjacent landscape parcel. Refer Appendix for calculations.

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6. CONCLUSION

WATER DISTRIBUTION

The proposed development will be serviced via new 100mm water service which will be fed from an existing 300mm water service located along the Promenade Campeau Drive. A 12.11 l/sec peak domestic water demand has been calculated for this project. Sizing and location of the proposed water services to the proposed buildings will be coordinated with the mechanical consultant at the detailed design stage. Additional fire hydrants are not required for this development.

SANITARY SEWAGE

Sanitary sewage from this development will be conveyed to the existing 300 mm diameter sanitary sewer on Campeau Dr. through the proposed 250mm sanitary lateral connection.

STORM DRAINAGE

Based on the design brief - Kanata West Business Park (KWBP) – Phase 5, 425 Huntmar Drive report prepared by IBI, the subject property is part of the overall development and is identified as Block 135A (Table 4.2) with a contribution area of 1.12 ha with an established allowable release rate of 257 L/s and required storage of 111m³. This parcel is designed to discharge to Pond 6 East (Figure 1 of KWBP – Phase 5 Design Brief) located to the east of the Tanger Mall Outlet and will provide both quantity and quality treatment.

However, the proposed development is approximately 0.907ha. A detailed stormwater calculations has been carried out to establish the allowable 5-yr pre-development release rate. The flow is controlled with a 110mm orifice pipe at the outlet. The controlled flow from the site will discharge onto the city 1350mm storm sewer via existing MH 108 along Campeau Dr. and is consistent with KWBP – Phase 5 Design Brief. A Stormwater Management Report for this development has been prepared under a separate cover.

James Sam, P.Eng
Tel (416) 229-2636
j.sam@jandb-inc.com

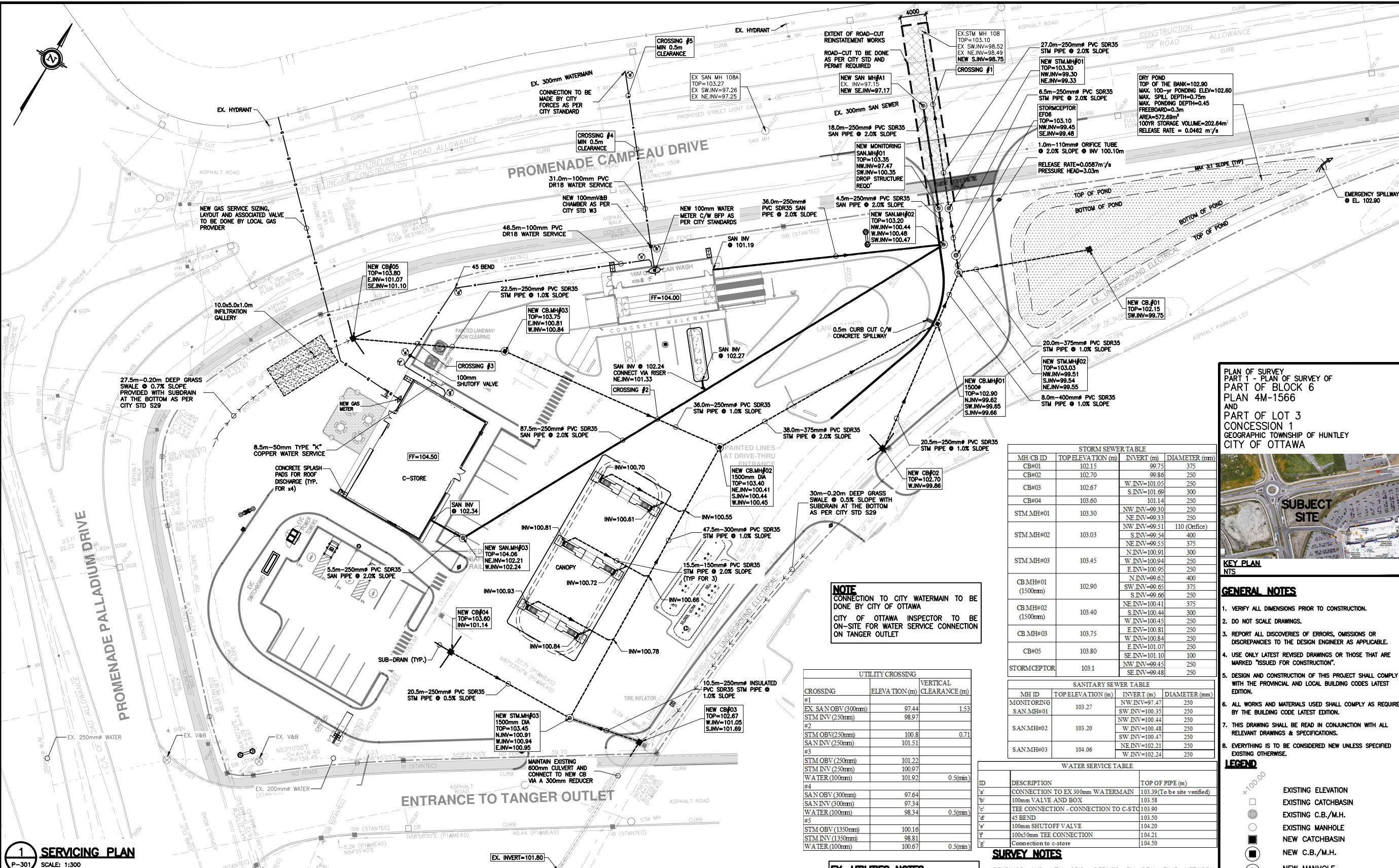




8605 Campeau Drive
Ottawa, ON

Appendix A

SITE SERVICING PLAN



1 SERVICING PLAN
SCALE: 1:300

SPECIFICATIONS FOR C.B.'S AND M.H.'S

- STORM:**
- DROP STRUCTURE IF REQUIRED AS PER CITY SPECIFICATION AND PER OPSD 1003.010.
 - 600x600 PRECAST CB AS PER OPSD 705.010 c/w FRAME AND GRATE AS PER S19, GOSS TRAP AND SUBDRAINS AS PER CITY STANDARD.1
 - ALL CB TO HAVE 3.0m - 150mm PERFORATED SUBDRAIN IN ALL 4 DIRECTIONS AS PER CITY STANDARDS.
 - 1200# PRECAST MH AS PER OPSD 701.010 c/w FRAME AS PER S25 AND COVER AS PER S24.1 AND S28.1.
 - BENCHING AS PER OPSD 701.021.

- BEDDING AS PER CITY STD S6.
- ADJUSTMENT UNITS AND CAPS AS PER OPSD 704.01.
- SEWER COVER-GRANULAR 'A' CONFORMING TO OPSD 802.03.
- PIPE-PVC SDR35 UNLESS NOTED OTHERWISE.
- CB CONNECTIONS AS PER OPSD 708.03
- ALL EX. STORM AND SANITARY ABANDONED SHOWN ON THE PLAN OR ENCOUNTERED DURING CONSTRUCTION ARE TO BE EXCAVATED AT THE STREET LINE AND SEALED TO CITY STD.
- WHEN THE DEPTH OF THE COVER OVER THE PROP. SANITARY OR STORM SEWERS IS LESS THAN 2.0m, SEWER LINES ARE TO BE INSULATED AS PER CITY STD. THE INSULATION TO BE STYROFOAM BRAND H.I. TYPE IV OR EQUAL.

WATERMAINS:

- ALL NEW WATERMAIN CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY STANDARDS.
- WATERMAIN AND/OR WATER SERVICES TO HAVE A MINIMUM OF 1.0m HORIZONTAL SEPARATION FROM OTHER UTILITIES AS PER CITY STANDARDS.
- WHERE WATERMAIN AND/OR WATER SERVICES CROSSES UNDER SANITARY OR STORM SEWER A MINIMUM CLEARANCE OF 0.5m SHALL BE PROVIDED.
- BEDDING MATERIAL TO BE INSTALLED AS PER CITY STANDARDS.
- WATER SERVICE TO HAVE MIN. 2.4m COVER. WHERE THE MINIMUM COVER IS NOT POSSIBLE INSULATE AS PER CITY OF OTTAWA STANDARD W22
- ALL TEES, PLUGS AND BENDS TO HAVE CONCRETE THRUST BLOCKS AS PER CITY STD
- CONTRACTOR TO PROVIDE PRESSURE TEST RESULTS OF NEW WATERMAIN AND FIRE MAIN.
- WATERMAIN TO BE INSTALLED WITH TRACER WIRE.

SANITARY

- 1200# PRECAST M.H.'S AS PER OPSD 701.01 c/w FRAME AS PER S25 AND COVER AS PER S24.
- DROP STRUCTURE IF REQUIRED AS PER CITY SPECIFICATION AND PER OPSD 1003.010.
- BEDDING AS PER CITY STD S6.
- BENCHING AS PER OPSD 701.021.
- SANITARY PIPES TO BE PVC SDR35.
- ALL SANITARY SEWERS TO BE TESTED IN ACCORDANCE WITH THE REQUIREMENT OF OBC 7.3.6

EX. UTILITIES NOTES

EXISTING INFORMATION REGARDING UTILITIES ALONG PALLADIUM DR. AND CAMPEAU DR. TO BE SITE VERIFIED

INFORMATION REGARDING EXISTING STORM, SANITARY AND WATER EXTRACTED FROM PROJECT 14289 DWG #103, DATED 2020-05-27 AND DWG #107, DATED 2018-09-14 BY IBI GROUP

SERVICES NOTES:

CONTACT LOCAL UTILITY AGENCIES (GAS, HYDRO & TELEPHONE) TO LOCATE THE EXISTING INCOMING SERVICES, AND USE THE SAME TO SERVE NEW INSTALLATIONS (IF APPLICABLE).

STORM SEWER TABLE

MH/CB ID	TOP ELEVATION (m)	INVERT (m)	DIAMETER (mm)
CB#01	102.15	99.75	375
CB#02	102.70	99.86	250
CB#03	102.67	W.D.V.=101.05 S.D.V.=101.69	250
CB#04	103.60	101.14	300
STM.MH#01	103.30	N.W.D.V.=99.30 N.E.D.V.=99.33	250
STM.MH#02	103.03	N.W.D.V.=99.51 S.D.V.=99.54 N.E.D.V.=99.55	400
STM.MH#03	103.45	N.D.V.=100.91 W.D.V.=100.94 E.D.V.=100.95	250
CB.MH#01 (1500mm)	102.90	N.D.V.=99.62 S.D.V.=99.66	400
CB.MH#02 (1500mm)	103.40	N.E.D.V.=100.41 S.D.V.=100.44	300
CB.MH#03	103.75	W.D.V.=100.84 E.D.V.=101.07	250
CB#05	103.80	SE.D.V.=101.10 NE.D.V.=99.45	100
STORMCEPTOR	103.1	N.W.D.V.=99.45 SE.D.V.=99.48	250

SANITARY SEWER TABLE

MH ID	TOP ELEVATION (m)	INVERT (m)	DIAMETER (mm)
MONITORING SAN.MH#01	103.27	N.W.D.V.=97.47 S.W.D.V.=100.35	250
SAN.MH#02	103.20	N.W.D.V.=100.44 W.D.V.=100.48 S.W.D.V.=100.47	250
SAN.MH#03	104.06	N.E.D.V.=102.21 W.D.V.=102.24	250

WATER SERVICE TABLE

ID	DESCRIPTION	TOP OF PIPE (m)
a	CONNECTION TO EX 300mm WATERMAIN	103.39 (To be site verified)
b	100mm VALVE AND BOX	103.58
c	TEE CONNECTION - CONNECTION TO C-ST	103.90
d	45 BEND	103.50
e	100mm SHUTOFF VALVE	104.20
f	100x50mm TEE CONNECTION	104.21
g	Connection to c-store	104.50

UTILITY CROSSING

CROSSING	ELEVATION (m)	VERTICAL CLEARANCE (m)
#1		
EX SAN OBV (300mm)	97.44	1.53
STM INV (250mm)	98.97	
#2		
STM OBV (50mm)	100.8	0.71
SAN INV (250mm)	101.51	
#3		
STM OBV (250mm)	101.22	
STM INV (250mm)	100.97	
WATER (100mm)	101.92	0.5(m)
#4		
SAN OBV (300mm)	97.64	
SAN INV (300mm)	97.34	
WATER (100mm)	98.34	0.5(m)
#5		
STM OBV (1350mm)	100.16	
STM INV (1350mm)	98.81	
WATER (100mm)	100.67	0.5(m)

SURVEY NOTES

BEARINGS AND MTM GRID, DERIVED BY REAL TIME NETWORK (RTN) OBSERVATIONS, MTM ZONE 9, NAD 83 (CSRS) (2010.0)

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999907

ELEVATIONS SHOWN ON THIS PLAN ARE REFERRED TO GEODETIC DATUM AND ARE DERIVED FROM CITY OF OTTAWA BENCH MARK 00119883075, HAVING PUBLISHED ELEVATION OF 90.612 METRES

ISSUE TABLE

TO	FOR	DATE
SUNCOR	FOR REVIEW	24 FEB 23
CITY	RE-ISSUED FOR SPA	17 MAR 23

PLAN OF SURVEY PART 1 PLAN OF SURVEY OF PART OF BLOCK 6 PLAN 4M-1566 AND PART OF LOT 3 CONCESSION 1 GEOGRAPHIC TOWNSHIP OF HUNTLEY CITY OF OTTAWA



KEY PLAN

GENERAL NOTES

- VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- DO NOT SCALE DRAWINGS.
- REPORT ALL DISCOVERIES OF ERRORS, OMISSIONS OR DISCREPANCIES TO THE DESIGN ENGINEER AS APPLICABLE.
- USE ONLY LATEST REVISED DRAWINGS OR THOSE THAT ARE MARKED "ISSUED FOR CONSTRUCTION".
- DESIGN AND CONSTRUCTION OF THIS PROJECT SHALL COMPLY WITH THE PROVINCIAL AND LOCAL BUILDING CODES LATEST EDITION.
- ALL WORKS AND MATERIALS USED SHALL COMPLY AS REQUIRED BY THE BUILDING CODE LATEST EDITION.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS & SPECIFICATIONS.
- EVERYTHING IS TO BE CONSIDERED NEW UNLESS SPECIFIED EXISTING OTHERWISE.

LEGEND

- EXISTING ELEVATION
- EXISTING CATCHBASIN
- EXISTING C.B./M.H.
- EXISTING MANHOLE
- NEW CATCHBASIN
- NEW C.B./M.H.
- NEW MANHOLE
- EXISTING STORM LINE
- EXISTING SANITARY LINE
- PROPERTY LINE
- SETBACK LINE
- NEW SANITARY LINE
- NEW STORM LINE
- NEW WATER LINE
- PHASE 2
- PIPE INSULATION
- SUB-DRAIN
- EXTENT OF ROAD CUT

REVISION TABLE

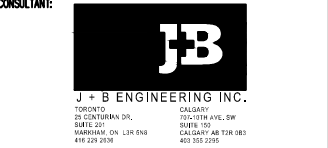
REV.	DESCRIPTION	DRWN	APP'D.	DATE
0	REVISED AS PER CLIENT COMMENTS	RP	JS	11 FEB 21
1	REVISED AS PER SITE PLAN AND CITY COMMENTS	BR	JS	15 JUL 22
2	WATER SERVICE REVISED	BR	JS	05 AUG 22
4	REVISED AS PER SITE PLAN MAR 14, 2023 AND CITY COMMENTS	MJ	JS	14 MAR 23

ISSUE TABLE

TO	FOR	DATE
SUNCOR	75% REVIEW	11 NOV 20
SUNCOR	PRICING	04 DEC 20
CITY	ISSUED FOR SPA	18 DEC 20
SUNCOR	FOR REVIEW	08 JUL 22
CITY	RE-ISSUED FOR SPA	05 AUG 22

METRIC

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED. CONTRACTOR TO CHECK/VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF WORK. ALL DISCREPANCIES TO BE REPORTED TO THE PROJECT DESIGNER. DO NOT SCALE DRAWINGS.



SERVICING PLAN

PROJECT:
PROMENADE PALLADIUM DRIVE @ PROMENADE CAMPEAU DRIVE OTTAWA, ON

DRWN BY:	RP	CAD FILE:	P301
DRAWING SCALE:	1:300	CONSULTANT CAD FILE No.:	200258-P301
DATE DRAWN:	2020-10-14	PLOT SCALE:	1:1
CHECKED BY:	BR	PLOT DATE:	
APPROVED BY:	JS	PLOT CONFIGURATION:	
STD No./OUTLET No.:	10565	Sheet No.:	P301



8605 Campeau Drive
Ottawa, ON

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Appendix B

WATER DEMAND CALCULATION



THEORETICAL DOMESTIC WATER DEMAND CALCULATION
436 -8605 Campeau Drive, Ottawa

Convenience Store
Domestic Water

Fixture Type	Approx. Present Number of Fixtures	Demand per Fixture	Total Demand	Adjustment Factor	Total Fixture Units (DCW)
Lavatory	3	2	6	0.75	4.50
Water Closet (F.T)	3	5	15	1.00	15.00
Kitchen Sink	5	4	20	0.75	15.00
Triple Sink	1	4	4	0.75	3.00
Mop Sink Service Sink	2	3	6	1.00	6.00
Dish Washer	0	2	0	0.75	0.00
Miscellaneous	10	1	10	0.75	7.50
Total			61	Fixture Units	51.00
				Peak Flow (USGPM)	41.300
				Peak Flow (l/m)	156.527
				Peak Flow (l/s)	2.609

Carwash

Unit Type	Water Demand ² (Assume 9.5L/s)		Peak flow Demand
	(L/s)	(m ³ /day)	(L/s)
Commercial	9.500	820.800	9.500

Total Peak Hourly Demand (L/s)	12.109
---------------------------------------	---------------

Note 1 Fixture units to gal/min based on OBC table no. 7.4.10.5

Note 2 As per historical data for similar type of car washes

Average Day Demand	Max. Daily Demand (1.5x avg. day)	Peak Hourly Demand (1.8 x avg. day)
l/s	l/s	l/s
4.48	6.73	12.11



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Appendix C

FIRE FLOW CALCULATION



Functional Servicing Report

25 Centurian Drive, Suite 201 Markham, Ontario		Telephone: (416) 229-2636 Fax: (416) 229-6965	
		Project: 8605 Campeau Drive, Ottawa Date: 11-Jul-22	
Fire Flow Calculation - FUS method			
Coefficient	Ordinary construction (Brick and other Masonry walls)	C=	1
Total Floor Area		A=	421.00 sqm
Fire flow		F= = ≈	220 C √A l/m 4514.02 l/m 5000.00 l/m
Occupancy Hazard	Combustible	Surcharge F=	0.00 % 5000.00 l/m
Automatic Sprinkler System	No	Reduction F=	0.00 % 5000.00 l/m
Separation with adjacent buildings	20.1 to 30m	Surcharge F=	10.00 % 5500.00 l/m
		Fire Flow	≈ 5,500.00 l/m



8605 Campeau Drive
Ottawa, ON

Functional Servicing Report

Appendix D

BOUNDARY CONDITION REQUEST



Binay Rajbhandari <b.rajbhandari@jandb-inc.com>

RE: 436 -8605 Campeau Drive, Ottawa (File#D07-12-21-0155)

Candow, Julie <julie.candow@ottawa.ca>
To: Binay Rajbhandari <b.rajbhandari@jandb-inc.com>
Cc: Janusz Kuszynski <j.kuszynski@jandb-inc.com>

Thu, Aug 4, 2022 at 8:16 AM

Hi Binay,

Please see below and attached boundary conditions for 436-8605 Campeau Drive.

Julie Candow, P.Eng

Project Manager

Planning, Real Estate and Economic Development Department - West Branch

City of Ottawa

[110 Laurier Avenue West](#) Ottawa, ON

613.580.2424 ext. 13850

Please take note that due to the current COVID situation, I am working remotely and phone communication may not be reliable at this time. The best way to reach me is by email.

From: Bougadis, John <John.Bougadis@ottawa.ca>
Sent: August 03, 2022 4:48 PM
To: Candow, Julie <julie.candow@ottawa.ca>
Cc: Simard, Lyndsey <lyndsey.simard@ottawa.ca>
Subject: FW: 436 -8605 Campeau Drive, Ottawa (File#D07-12-21-0155)

Hi Julie,

The average day demand of 4.55 l/s (393 m³/d) calculated for this site is really high and triggers the need for a second feed as per technical bulletin ISTB-2021-03.pdf (see below).

4.3.1	Configuration	52	<p>Replace the second paragraph in section 4.3.1 in its entirety with the following:</p> <p>Industrial, commercial, institutional service areas with a basic day demand greater than 50 m³/day and residential areas serving 50 or more dwellings shall be connected with a minimum of two watermains, separated by an isolation valve, to avoid the creation of a vulnerable service area. Individual residential facilities with a basic day demand greater than 50 m³/day shall be connected with a minimum of two water services, separated by an isolation valve, to avoid the creation of a vulnerable service area.</p>
4.6.1	Location	72	Replace the fourth paragraph in section

Thanks!

John
x14990

From: Simard, Lyndsey <lyndsey.simard@ottawa.ca>
Sent: 2022/08/03 14:28
To: Bougadis, John <John.Bougadis@ottawa.ca>
Subject: RE: 436 -8605 Campeau Drive, Ottawa (File#D07-12-21-0155)

Hi John,

The boundary conditions are attached for your review. As noted in the BC, a second connection to the watermain, separated by an isolation valve, is required.

Cheers,
Lyndsey

From: Candow, Julie <julie.candow@ottawa.ca>
Sent: 2022/07/13 12:58
To: Bougadis, John <John.Bougadis@ottawa.ca>
Cc: Simard, Lyndsey <lyndsey.simard@ottawa.ca>
Subject: FW: 436 -8605 Campeau Drive, Ottawa (File#D07-12-21-0155)

Hi John and Lyndsey,

Please see below and attached boundary condition request for 436 – 8605 Campeau Drive (proposed gas station at Tanger Outlets).

For the water demands, they have used historical data from a similar car wash to determine their peak hour demand, then they worked backwards to establish the max day and average day demand. Let me know if you are okay with this approach. When I compared it to Appendix

4A of the Sewer Design Guidelines (400 litres / truck for a cash wash) the values seemed reasonable.

Thanks,

Julie Candow, P.Eng

Project Manager

Planning, Real Estate and Economic Development Department - West Branch

[City of Ottawa](#)

[110 Laurier Avenue West](#) Ottawa, ON

613.580.2424 ext. 13850

Please take note that due to the current COVID situation, I am working remotely and phone communication may not be reliable at this time. The best way to reach me is by email.

From: Binay Rajbhandari <b.rajbhandari@jandb-inc.com>
Sent: July 11, 2022 2:43 PM
To: Candow, Julie <julie.candow@ottawa.ca>
Subject: 436 -8605 Campeau Drive, Ottawa (File#D07-12-21-0155)

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 Julie,

I was looking to contact Justin to request boundary conditions for water service for our project located at [436 -8605 Campeau Drive, Ottawa](#) (File#D07-12-21-0155).

However as Justin is currently on leave, could you please assist us with the same.

The site details are as follows:

- i. Location of the Connection and Property: **Tanger Outlet Entrance, 436 -8605 Campeau Drive, Ottawa**
- ii. Type of development and amount of fire flow required (FUS): **Commercial (Gas Station+Car wash), 100.00 l/s**
- iii. Average Daily demand: **4.55 l/s**
- iv. Maximum daily demand: **6.82 l/s**
- v. Maximum hourly demand: **12.27 l/s**

Also attached is the Draft Site Servicing Plan for your reference.

Regards,

Binay Rajbhandari Shrestha, P.Eng

J+B Engineering Inc.

25 Centurian Drive, Suite 201

Markham, ON L3R 5N8

O: 416.229.2636 x 227

F: 416.229.6965

E: b.rajbhandari@jandb-inc.com

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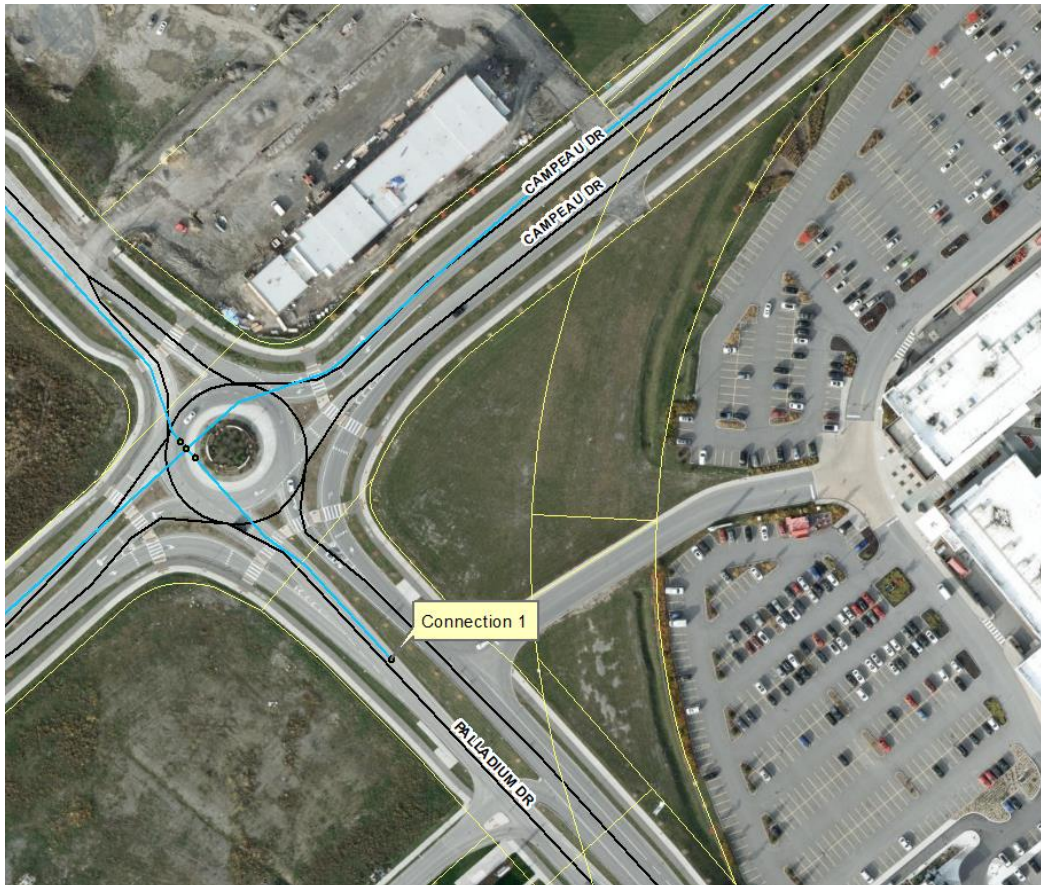
 **436 -8605 Campeau Drive_03Aug2022.docx**
1210K

Boundary Conditions 436 -8605 Campeau Drive

Provided Information

Scenario	Demand	
	L/min	L/s
Average Daily Demand	273	4.55
Maximum Daily Demand	409	6.82
Peak Hour	736	12.27
Fire Flow Demand #1	6,000	100.00

Location



Results

Connection 1 – Palladium Dr.

Demand Scenario	Head (m)	Pressure ¹ (psi)
Maximum HGL	161.2	82.4
Peak Hour	156.2	75.3
Max Day plus Fire 1	149.5	65.7

Ground Elevation = 103.3 m

Notes

1. A second connection to the watermain, separated by an isolation valve, is required to decrease vulnerability of the water system in case of breaks.
2. As per the Ontario Building Code in areas that may be occupied, the static pressure at any fixture shall not exceed 552 kPa (80 psi.) Pressure control measures to be considered are as follows, in order of preference:
 - a. If possible, systems to be designed to residual pressures of 345 to 552 kPa (50 to 80 psi) in all occupied areas outside of the public right-of-way without special pressure control equipment.
 - b. Pressure reducing valves to be installed immediately downstream of the isolation valve in the home/ building, located downstream of the meter so it is owner maintained.

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.



8605 Campeau Drive
Ottawa, ON

Functional Servicing Report

Appendix E

SANITARY FLOW CALCULATION

SANITARY SEWER DESIGN SHEET



Functional Servicing Report

THEORETICAL DOMESTIC SANITARY CALCULATION 436 -8605 Campeau Drive, Ottawa

Service Station

Unit Type	Nos.	Peak Commercial Flow	Total Flow
		l/d	l/s
i) Water Closet	3	950	0.033
ii) Fuel Outlet ²	12	560	0.078
iii) Discharge from Car Wash ³			9.500
Total Peak Flow			9.611

- Note 1 Water Closet volume based on OBC Table 8.2.1.3.B.
Note 2 Fuel Outlet volume based on OBC Table 8.2.1.3.B.
Note 3 As per historical data for similar type of car washes



8605 Campeau Drive
Ottawa, ON

SANITARY SEWER COMPUTATION SHEET

8605 Prmenade Campeau Dr., Ottawa, ON

PREPARED BY: BR
CHECKED BY: JS
DATE: February 9, 2023
PROJECT #: 200258

Design Flow Calculation

Service Station

Unit Type	Nos.	Peak Commercial Flow	Total Flow
		l/d	l/s
i) Water Closet ¹	3	950	0.033
ii) Fuel Outlet ²	12	560	0.078
iii) Discharge from Car Wash ³			9.500
Total Peak Flow			9.611

Note 1 Water Closet volume based on OBC Table 8.2.1.3.B.

Note 2 Fuel Outlet volume based on OBC Table 8.2.1.3.B.

Note 3 As per historical data for similar type of car washes

Note 4 Extraneous flow = 0.33L/s/gross ha, As per the City Sewer Design Guidelines Technical Bulletin ISTB-2018-01

LOCATION			PEAK DESIGN FLOW, Q(d) (L/s)	AREA (ha)	EXTRANEIOUS FLOW (L/s)	TOTAL FLOW (L/s)	PROPOSED SANITARY SEWER							
STREET	FROM MH	TO MH					LENGTH (m)	PIPE SIZE (mm)	GRADE (%)	MANNING'S n	CAPACITY (L/s)	FULL FLOW VELOCITY (m/s)	ACTUAL VELOCITY (m/s)	PERCENT FULL
Property														
8605 Promanade Dr.	SAN.MH#02	SAN.MH#01	9.611	0.907	0.299	9.910	43.5	250	2.00%	0.013	84.09979	1.71	1.11	11.4%
	SAN.MH#03	SAN MH#02	0.111	0.907	0.299	0.410	44.0	250	2.00%	0.013	84.09979	1.71	0.47	0.1%
	SAN.MH#01	NEW SAN MH#A1	9.611	0.907	0.299	9.910	44.0	250	2.00%	0.013	84.09979	1.71	1.11	11.4%
	SAN.MH#03	SAN MH#02	9.611	0.907	0.299	9.910	44.0	250	2.00%	0.013	84.09979	1.71	1.11	11.4%



8605 Campeau Drive
Ottawa, ON

Appendix F

STORM SEWER DESIGN SHEET

STORM SEWER DESIGN SHEET
436 -8605 Campeau Drive, Ottawa

Runoff Coefficient, C	Pervious Areas	0.20
	Landscape Areas	0.20
	Roof Areas	0.90
	Paved Areas	0.90
	Gravel/Unit Paved Areas	0.90
	Other Impervious Areas	0.90

Rainfall:	A=	998.071
	B=	0.814
	C=	6.053

Time of Concentration, min: 10.00
 Rainfall Intensity (mm/hr): 104.19 5 year storm

Catchment ID	Area Imper. (m ²)	Area Perv. (m ²)	Composite C-Value	Rainfall Intensity (mm/hr)	Total Area (m ²)	Flow (m ³ /s)
A	1340.33	459.10	0.72	104.19	1799.43	0.038
B	643.38	2796.00	0.33	104.19	3439.38	0.033
C	375.88	0.00	0.90	104.19	375.88	0.010
D	0.00	1015.52	0.20	104.19	1015.52	0.006
E	287.85	0.00	0.90	104.19	287.85	0.008
F	134.24	0.00	0.90	104.19	134.24	0.003
G	1165.72	27.91	0.88	104.19	1193.63	0.031
H	654.77	335.12	0.66	104.19	989.89	0.019
I	0.00	927.13	0.20	104.19	927.13	0.005
TOTAL	4602.16	5561	0.52	104.19	10162.94	0.152

Pipe ID	Pipe Dia. (m)	Area (m ²)	Perimeter (m)	Hydraulic Radius (m)	Slope (m/m)	Roughness Coefficient	Velocity (m/s)	Max. Pipe Flow (M) (m ³ /s)	Actual Pipe Flow (A) (m ³ /s)	Percentage of flow	Available Capacity	Servicing area
1	0.250	0.049	0.785	0.063	0.010	0.013	1.211	0.059	0.038	63%	37%	A
2	0.250	0.049	0.785	0.063	0.020	0.013	1.713	0.084	0.033	39%	61%	B
3	0.300	0.071	0.942	0.075	0.010	0.013	1.368	0.097	0.080	83%	17%	A-C
4	0.250	0.049	0.785	0.063	0.010	0.013	1.211	0.059	0.013	23%	77%	D-E
5	0.250	0.049	0.785	0.063	0.010	0.013	1.211	0.059	0.017	28%	72%	D-F
6	0.375	0.110	1.178	0.094	0.010	0.013	1.587	0.175	0.097	55%	45%	A-F
7	0.250	0.049	0.785	0.063	0.005	0.013	0.857	0.042	0.031	73%	27%	G
8	0.400	0.126	1.257	0.100	0.010	0.013	1.657	0.208	0.147	70%	30%	A-H
9	0.375	0.110	1.178	0.094	0.020	0.013	2.245	0.248	0.152	61%	39%	A-I
10	0.250	0.049	0.785	0.063	0.020	0.013	1.713	0.084	0.058	69%	31%	D/S of Orifice
11	0.250	0.049	0.785	0.063	0.020	0.013	1.713	0.084	0.058	69%	31%	U/S of Orifice



8605 Campeau Drive
Ottawa, ON

Appendix G

SERVICING STUDY CHECKLIST

Servicing study guidelines for development applications

4. Development Servicing Study Checklist

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

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

4.1 General Content

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

- Reference to geotechnical studies and recommendations concerning servicing.

- All preliminary and formal site plan submissions should have the following information:
 - Metric scale

 - North arrow (including construction North)

 - Key plan

 - Name and contact information of applicant and property owner

 - Property limits including bearings and dimensions

 - Existing and proposed structures and parking areas

 - Easements, road widening and rights-of-way

 - Adjacent street names

4.2 Development Servicing Report: Water

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

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

4.3 Development Servicing Report: Wastewater

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

4.4 Development Servicing Report: Stormwater Checklist

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

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

4.5 Approval and Permit Requirements: Checklist

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

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

4.6 Conclusion Checklist

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



8605 Campeau Drive
Ottawa, ON

Functional Servicing Report

Appendix H

CULVERT ASSESSMENT



Functional Servicing Report

<u>Design Information</u>				
Design Discharge		Q =	0.032	cms
Pipe Diameter		D =	0.300	m
Inlet Edge Type		Square End Projection		
Inlet Invert Elevation		I _e =	101.800	m
Outlet Invert Elevation		O _e =	101.690	m
Pipe Length		L =	1.000	m
Pipe Manning's n		n =	0.013	
Bend Loss Coefficient		K _b =	0.900	
Exit Loss Coefficient		K _x =	0.720	
Tailwater Water Surface Elevation		El. Y _t =	101.229	m
<u>Calculations</u>				
Pipe Cross Sectional Area		A _o =	0.071	sqm
Culvert Slope		S _o =	0.004	m/m
Normal Flow Depth		Y _n =	0.064	m
Critical Flow Depth		Y _c =	0.137	m
<u>Headwater Depth by Inlet Control</u>				
Headwater Depth by Inlet Control		HW-inlet=	0.183	m
<u>Headwater Depth by Outlet Control</u>				
Tailwater Depth for Design		d =	0.219	m
Friction Loss Coefficient over Culvert Length		K _f =	0.100	
Sum of All Loss Coefficients		K _s =	1.920	
Headwater Depth by Outlet Control		HW-outlet=	0.137	m
<u>Design Headwater Depth</u>				
HW/D Ratio =		HW=	0.183	m
		HW/D=	0.610	



8605 Campeau Drive
Ottawa, ON

Functional Servicing Report

Appendix I

EMAIL CORRESPONDENCE WITH CITY PLANS EXAMINER



Mary Joseph <m.joseph@jandb-inc.com>

8605 Campeau Drive, Ottawa File No.: D07-12-21-0155 & D02-02-22-0087

Armstrong, Justin <justin.armstrong@ottawa.ca>

Thu, Jan 12, 2023 at 3:08 PM

To: Mary Joseph <m.joseph@jandb-inc.com>

Cc: James Sam <j.sam@jandb-inc.com>

Hi Mary,

Are you saying that J+B's analysis included in the first submission indicated insufficient pressure?
Or are you saying this was a comment provided to you from the City?

Ultimately it will be up to J+B Engineering to demonstrate that the single connection from Promenade Campeau Drive has sufficient pressure to accommodate the proposed development (C-wash + C-store).

The City has previously provided boundary conditions for the proposed connection to the 250mm main off Palladium based on the demands J+B had provided (see attached). The residual pressures at the City main look to be acceptable. So, as long as J+B's model of the private main that is proposed on site indicates pressures that are in line with the City's guidelines for each demand scenario, the single connection to Campeau will be accepted.

If J+B's analysis indicates insufficient pressures within the private system for any event/pressure requirement, or if a second connection is desired by the proponent for reliability purposes, the City will accept a second connection to the private Tanger main to loop the system. If the second, private connection is proposed, a private agreement with Tanger would need to be demonstrated, a shut-off valve provided, and this feed would also need to tie into the private system upstream of the water meter.

To summarize, as long as your design and model demonstrates that there is adequate pressure within the private 8605 Campeau system, the single connection you proposed below is acceptable. However, if the 8605 Campeau system needs to be looped to provide adequate pressure within the system, or a more reliable supply of water is desired for the site, the private connection would also be accepted subject to the conditions outlined above.

Note that although the boundary conditions were provided for the previously proposed connection off Palladium, the same results may be used in J+B's analysis of 8605's private system for the connection proposed below to Campeau.

Let me know if any other questions.

Thanks,

Justin

Justin Armstrong, P.Eng.

Project Manager

Planning, Real Estate and Economic Development Department – Direction générale de la planification, des biens immobiliers et du développement économique

Development Review - West Branch

City of Ottawa | Ville d'Ottawa

110 Laurier Avenue West Ottawa, ON | 110, avenue. Laurier Ouest. Ottawa (Ontario) K1P 1J1

613.580.2424 ext./poste 21746, justin.armstrong@ottawa.ca

From: Mary Joseph <m.joseph@jandb-inc.com>

Sent: January 12, 2023 10:55 AM

To: Armstrong, Justin <justin.armstrong@ottawa.ca>

Cc: James Sam <j.sam@jandb-inc.com>

Subject: Re: 8605 Campeau Drive, Ottawa File No.: D07-12-21-0155 & D02-02-22-0087

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Hello Justin,

Good Morning and hope all is well with you!

Just following up regarding my previous email. Please respond at your earliest convenience.

Thanks and Regards,

Mary Joseph, EIT, M.Eng.

J+B Engineering Inc.

25 Centurian Drive, Suite 201

Markham, ON L3R 5N8

O: 416.229.2636 x 215

On Wed, Jan 11, 2023 at 11:32 AM Mary Joseph <m.joseph@jandb-inc.com> wrote:

Hello Justin,

There is one more item we would like to confirm with you. Please note that the 1st submission indicated insufficient pressure, which is why 2 separate connections were proposed for the 2nd submission. Please confirm that the single connection from Promenade Campeau Drive has sufficient pressure to accommodate the proposed development (C-wash + C-store).

Thanks and Regards,

Mary Joseph, EIT, M.Eng.

J+B Engineering Inc.

25 Centurian Drive, Suite 201

Markham, ON L3R 5N8

O: 416.229.2636 x 215

On Wed, Jan 11, 2023 at 9:52 AM Armstrong, Justin <justin.armstrong@ottawa.ca> wrote:

Good morning Mary,

Thanks for reaching out. The layout you have proposed below is acceptable. Just ensure no 90-degree bends in the water service for your next submission, and also show the location of the car wash mechanical room housing the meter on the servicing plan.

With the next submission, please ensure the following is provided for review and approval by the City's water meter group:

- A water entry detail.
- A completed water data card template (parts a, b, c completed in the attached) for meter sizing.

Regards,

Justin

Justin Armstrong, P.Eng.

Project Manager

Planning, Real Estate and Economic Development Department – Direction générale de la planification, des biens immobiliers et du développement économique

Development Review - West Branch

City of Ottawa | Ville d'Ottawa

[110 Laurier Avenue West Ottawa, ON](#) | 110, avenue. Laurier Ouest. Ottawa (Ontario) K1P 1J1

613.580.2424 ext./poste 21746, justin.armstrong@ottawa.ca

From: Mary Joseph <m.joseph@jandb-inc.com>
Sent: January 10, 2023 1:28 PM
To: Armstrong, Justin <justin.armstrong@ottawa.ca>
Cc: James Sam <j.sam@jandb-inc.com>
Subject: 8605 Campeau Drive, Ottawa File No.: D07-12-21-0155 & D02-02-22-0087

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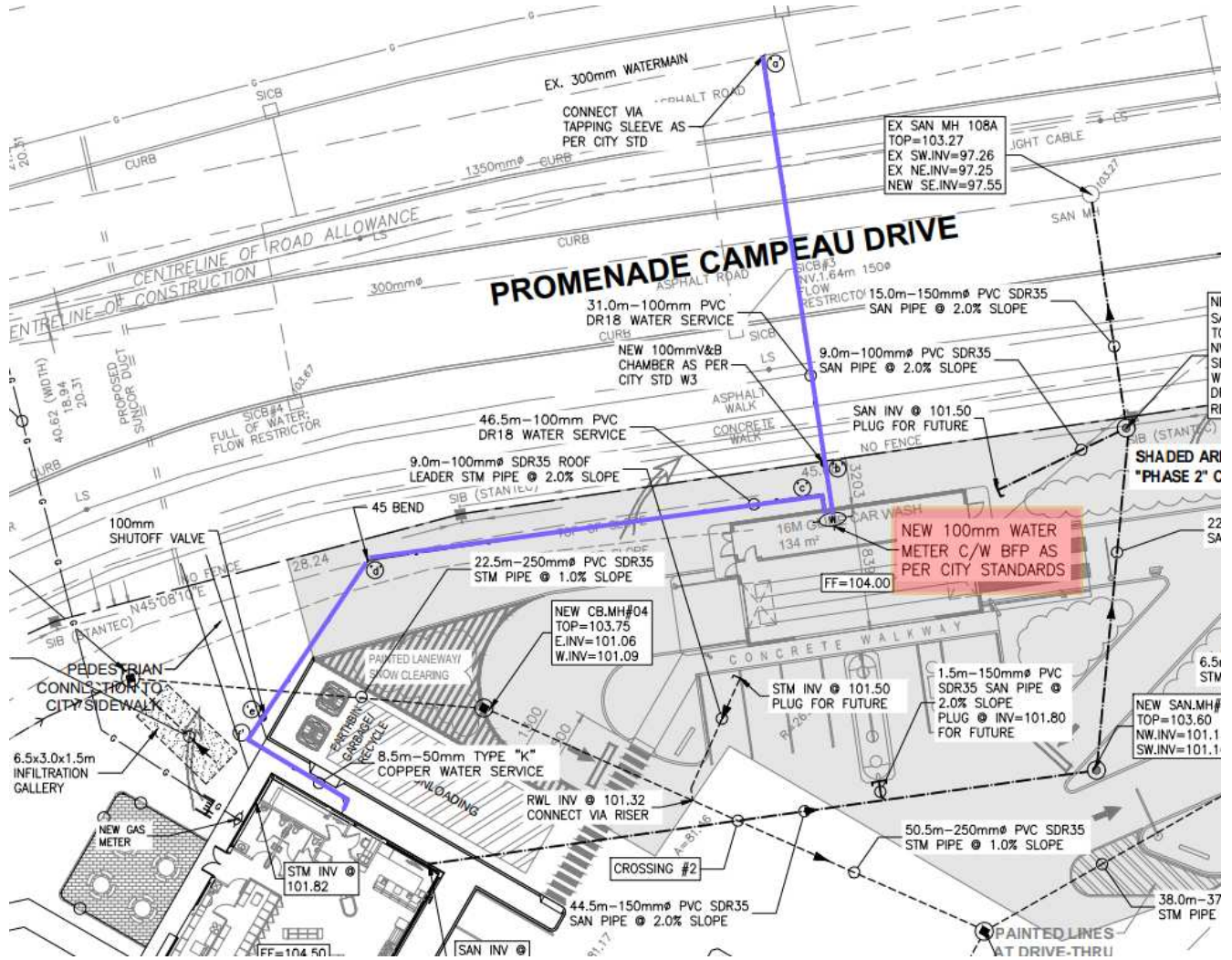
Hello Justin,

Good Afternoon and hope all is well with you!

This email is regarding the Watermain comments provided as part of the 2nd Review comments for the noted project.

Based on the comments, we understand that a single connection to the City water system will be acceptable for this site. Could you please review the screenshot below and advise if the proposed watermain layout is acceptable?

As per the proposed layout the watermain will be metered at the Carwash and will continue to feed the C-Store downstream.



We appreciate your assistance and look forward to hearing from you soon.

Thanks and Regards,

Mary Joseph, EIT, M.Eng.

J+B Engineering Inc.

25 Centurian Drive, Suite 201

Markham, ON L3R 5N8

O: 416.229.2636 x 215

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