



Site Servicing Report

**Best Western Plus
1274 Carling Avenue
Ottawa, Ontario**

Type of Document
Site Plan Submission

Project Name
Best Western Plus – 1274 Carling Avenue

Project Number
OTT-00245849-A0

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Reviewed By: B. Thomas, P.Eng.

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Date Submitted
August 19, 2019

Site Servicing Report

Best Western Plus
1274 Carling Avenue
Ottawa, Ontario

Type of Document:
Site Plan Submission

Project Name:
Best Western Plus

Project Number:
OTT-00245984-A0

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Legal Notification

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1 Introduction

1.1 Site Description and Proposed Development

Best Western Plus retained EXP Services Inc. (EXP) to prepare a site servicing report for the expansion of the 3rd and 4th floors of the existing hotel. The expansion consists of an additional 24 hotel suites, which will be constructed on top of the northern portion of the existing hotel, which is currently only two storeys.

The 0.9728-hectare development site is situated at 1274 Carling Ave, at the corner of Carling Ave and Merivale Road in the City of Ottawa (City), Ontario as shown on Figure A1 in Appendix A. The property is within Ward 16 or River Ward.

The property consists of the following parcels, all located in Lot 35, Concession 2 (Rideau Front), Geographic Township of Nepean, City of Ottawa.

- Part of Lots 12, 13 & 14 on Registered Plan 4R-6193
- Hugh Street (Closed by By-Law 25-57)
- Part of Lots 17, 18, 19 & 20 on Registered Plan 4R-6193
- Block 8 on Registered Plan 4R-6193
- Parts 2, 3, 4 on Registered Plan 4R-6193 (subject to easements)

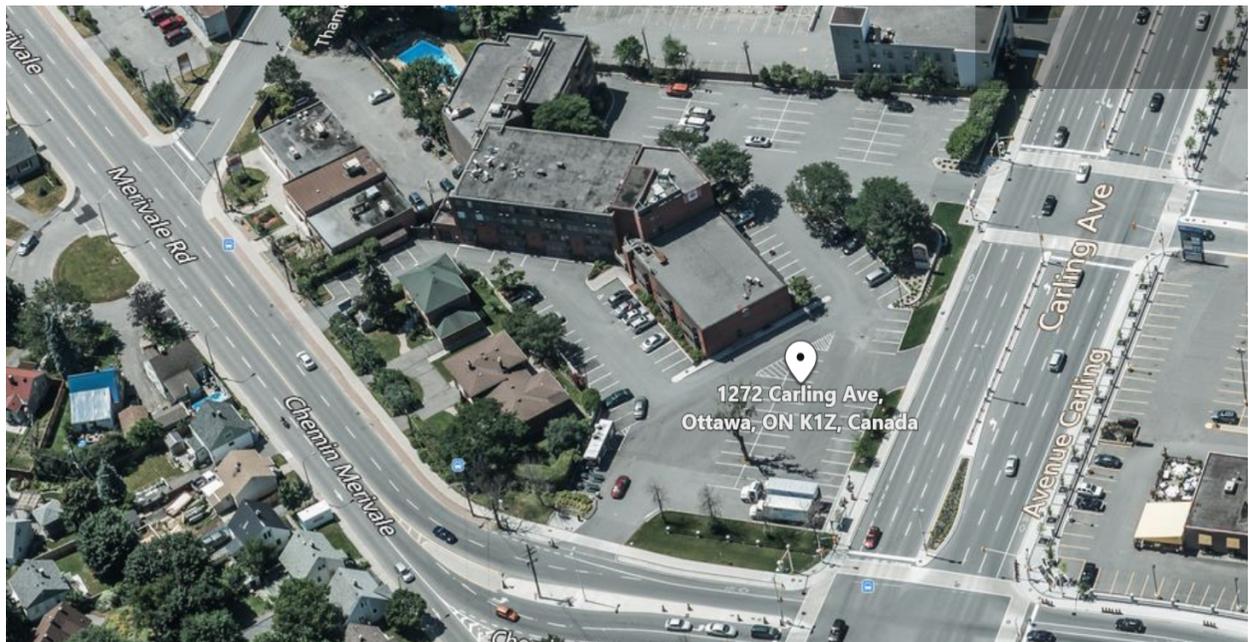


Figure 1 - Birds Eye View of Property

This report will discuss the adequacy of the existing onsite and adjacent municipal watermains, sanitary sewers and storm sewers to support the proposed hotel expansion.

1.2 Background Documents

Various design guidelines were referred to in preparing the current report including:

- Sewer Design Guidelines, Second Edition, Document SDG002, October 2012, City of Ottawa including:
 - Technical Bulletin ISDTB-2012-4 (20 June 2012)
 - Technical Bulletin ISDTB-2014-01 (05 February 2014)
 - Technical Bulletin PIEDTB-2016-01 (September 6, 2016)
 - Technical Bulletin ISDTB-2018-01 (21 March 2018)
 - Technical Bulletin ISDTB-2018-04 (27 June 2018)
- Ottawa Design Guidelines – Water Distribution, July 2010 (WDG001), including:
 - Technical Bulletin ISDTB-2014-02 (May 27, 2014)
 - Technical Bulletin ISTB-2018-02 (21 March 2018)
- Stormwater Management Planning and Design Manual, Ontario Ministry of the Environment and Climate Change, March 2003 (SMPDM).
- Design Guidelines for Drinking-Water Systems, Ontario Ministry of the Environment and Climate Change, 2008 (GDWS).
- Fire Underwriters Survey, Water Supply for Public Fire Protection (FUS), 1999.
- Ontario Building Code 2012, Ministry of Municipal Affairs and Housing.

1.3 Existing Conditions

The property area is 0.9728 hectares and is currently be used for the Best Western Plus. Within the property two (2) existing 2-storey residential homes are situated fronting Merivale Road. These residential homes are owned by Best Western Plus, however, are being rented at this time.

The existing hotel consists of three (3) wings, all constructed at different times. The original, or middle portion of the building is four storey, with the southern portion also four storeys in height. The northern most portion of the building is currently 2 storeys in height.

The current hotel contains 121 hotel rooms, amenity spaces including exercise rooms, restaurant and conference rooms. It is proposed to add 24 new hotel rooms, which will be achieved by the expansion of the third and four floors.

The site is currently serviced by municipal sewer and water services. Storm and sanitary sewer services are connected to municipal sewers on Carling Avenue, whereas the water feed for the building is serviced by a connection to a watermain on the east side of Merivale Road.

The following summarizes the existing water, sanitary and storm sewers within and adjacent to the property.

Within property

- 200mm sanitary sewer
- 150mm, 200mm & 250mm storm sewer
- 150mm watermain
- Bell / Hydro / 100mm Gas

On Carling Avenue

- 250mm, and 900mm sanitary sewers
- 750mm, and 1800mm & 2100mm storm sewers
- 400mm, and 1220mm watermains
- Hydro/ Bell / Streetlighting / Traffic / Gas

On Merivale Road

- 150mm & 375mm storm sewers
- 300mm sanitary sewers
- 300mm watermain
- Hydro / Traffic / Streetlighting / Gas

1.4 Consultation and Permits

A pre-consultation meeting was held between Best Western Plus and the City prior to design commencement. This meeting outlined the submission requirements and provided information to assist with the development proposal.

2 Watermain Servicing

A review of the existing water supply system serving the hotel site was completed. The current water supply consists of ±40 metres of 150mm watermain that connects to the 300mm unlined cast iron (UCI) watermain on Merivale Road (1945). The existing 150mm watermain, due to its installation in mid-1980's it expected to be ductile iron. The original mechanical Site Services plan (Drawing MS-1), indicates a service post (valve) at the property line, however one was not noted during the site visit. The 150mm watermain enters the building in the north-east corner and directly enters the mechanical room located in the basement of the hotel. Once inside the building, the water supply is branched into separate the fire supply line and the domestic supply for drinking water. The domestic water supply is then equipped with a water meter, and isolation valves. The fire supply line is then directed to the sprinkler system which serves the basement areas.

As a result of expansion of the hotel, the water supply requirements for fire-fighting was reviewed. This was completed as follows;

- Estimated the average day, maximum day and peak hour water demands for the entire building considering the additional 24 new hotel suits.
- Estimated the Required Fire Flow (RFF) based on the FUS method as required by the City of Ottawa.
- Reviewed the water pressure within the City's water system based on the boundary condition provided by City staff.
- Reviewed the estimated available supply of water from hydrants in proximity to the building as per City Technical Bulletin Technical Bulletin ISTB-2018-02

We estimated the domestic water demands as shown below, using parameters from the WDG001 as follows:

• Pressure Zone	=	2W
• No. of Hotel Suite	=	145
• Unit Density (person per unit)	=	1.4
• Population = 145 suites x 1.4 persons per unit	=	203 persons
• Max Day Residential Peaking Factor (as per MOE Table 3-3)	=	4.44 x avg. day
• Peak Hour Residential Peaking Factor (as per MOE Table 3-3)	=	6.69 x avg. day
• Avg Day Demands = 203 pers x 350 L/pers/day x (1/86,400)	=	0.82 L/sec
• Total Maximum Day Demands = 0.82 L/sec x 4.44	=	3.65 L/sec
• Total Peak Hour Demands = 0.82 L/sec x 6.69	=	5.50 L/sec

The average day, maximum day, and peak hourly demands for the Best Western Plus, which included the new renovations is 0.8 L/sec, 3.7 L/sec, and 5.5 L/sec, respectively. Please note that the maximum day and peak hour factors, noted above, were determined based on MOECC GDWS Table 3-3 as the population of the proposed development is less than 500 persons. This requirement is noted in Section 4.2.8 of the City's WDG001. Detailed calculations of the domestic water demands are provided in Table C1.

2.1 Fire Flow Requirements

Water for fire protection will be available utilizing the proposed fire hydrants located along the adjacent roadways: Carling Avenue, and Merivale Road. The required fire flows for the proposed building were calculated based on typical values as established by the Fire Underwriters Survey 1999 (FUS).

The following equation from the Fire Underwriters document "Water Supply for Public Fire Protection", 1991, was used for calculation of the on-site supply rates required to be supplied by the hydrants:

$$F = 200 * C * \sqrt{A}$$

where

F = Required Fire flow in Litres per minute
 C = Coefficient related to type of Construction
 A = Total Floor Area in square metres

A reduction for low hazard occupancy of -15% for limited combustible, and an increase for fire area exposure of +20% was used. Below are the fire flow requirements.

Type of Construction	=	Non-combustible
Coeff Related to Construction	=	0.8
Basement Floor Area	=	1,615 m ² (excluded as it's at 50% below grade)
Ground Floor Area	=	1,615 m ²
2 nd Floor Area	=	1,615 m ²
3 rd to 4 th Floor Area	=	1,615 m ²
Number of Floors	=	4
Fire Flow Requirement, FF	=	200 * 1.5 * \sqrt{A}
	=	200 * 1.5 * $\sqrt{6460}$
	=	14,146 L/min or 14,000 L/min (rounded)
Occupancy Class	=	Limited Combustible
Occupancy Charge	=	-15%
Fire Flow Requirement, FF (with reduction due to occupancy)	=	14,000 *-15%
	=	-2,100 L/min
	=	11,900 L/min
Sprinkler Protection Credit	=	-30% * (1,010/6,460) = -30% x 16% = -5%
	=	(Sprinkler Conforming to NFPA 13 for 3 rd , 4 th floor additions)
Fire Flow Requirement, FF (with Reduction due to sprinkler)	=	11,900 *-5%
	=	11,329 L/min
Charges Due to Exposures	=	sum for all sides
	=	0% + 8% + 0% + 12%
	=	20%
Required Fire Flow (RFF)	=	11,329 L/min + (20% x 11,900) L/min
	=	11,329 L/min + 2,380 L/min
	=	13,790 L/min
	=	14,000 L/min (rounded to closest 1,000)
	=	233 L/sec

The estimated fire flow requirements for the entire building based on the FUS method is 233 L/sec. It should be noted that the entire basement level is serviced by an automatic sprinkler system.

2.2 Review of Hydrant Spacing

A review of the hydrant spacing was completed to ensure compliance with Appendix I of Technical Bulletin ISTB-2018-02. As per Section 3 of Appendix I all hydrants within 150 metres were reviewed to assess the total possible contribution of flow from these contributing hydrants. For each hydrant the distance to the proposed building was determined to arrive at the contribution of fire flow from each. All hydrants are expected to be of Class AA as per Section 5.1 of Appendix I. Table B3 in Appendix B provides additional details on the fire flow contribution of each hydrant. Some of the hydrants noted below do not contribute available fire flows due to their proximity or distance to the building.

Table 2-1: Fire Flow Contributions Based on Hydrant Spacing

Hydrant #	Location	¹ Straight Distance (m)	² Distance (m)	³ Fire Flow Contribution (L/min)
364027H254	Carling Avenue	68	104	3,800
364027H255	Carling Avenue	27	45	5,700
364027H256	Carling Avenue	50	68	5,700
364027H264	Carling Avenue	64	89	0
364027H058	Merivale Road	81	81	0
364027H047	Carling Avenue	140	176	0
364027H059	Merivale Road	58	69	0
364027H245	Thames Street	46	46	5,700
Total Fireflow Available (L/min) =				20,900
FUS RFF (L/min) =				14,000
Meets Requirement (Yes/No) =				Yes
Note:				
¹ Straight distance from hydrant to the closest part of building.				
² Distance is measured along a road or fire route.				
³ Fire Flow Contribution for Class AA Hydrant from Table 1 of Appendix I, ISTB-2018-02				

Table 2-1 above summarizes all fire hydrants within a 150m distance from the proposed building. For each hydrant the straight-line distance was measured along a fire route or roadway, whether its location is accessible, and its contribution to the required fire flow was determined. Figure A2 in Appendix A illustrates the hydrant locations in proximity to the site.

The total available contribution of flow from existing hydrants was estimated as 20,900 L/min, which exceeds the required fire flow of 14,000 L/min as identified in Appendix I of Technical Bulletin ISTB-2018-02.

There are no onsite watermains within the property, however the closest city owned watermain (Hydrant No: 364027h255) is located directly in front to the building on the south side of Carling Avenue. Two fire department (siamese) connections are located on the right-side of the main entrance. The fire department connections are ±56m distance to the above noted hydrant.

There are no onsite water servicing works proposed. All new proposed internal water supply requirements will be serviced from the existing 150mm watermain.

3 Sanitary Sewer Design

Like the water supply requirements the sanitary sewage collection system was reviewed based on the existing and proposed uses. Along with the additional hotel suites, sewage flow rates were determined based on the expansion to determine a revised site sewage rate. This was then compared to the capacity of the existing onsite sanitary sewers to determine if adequate.

The sanitary sewage rate was estimated based on a population flow, and an area-based infiltration allowance. The flows were calculated using City sewer design guidelines (SDG002) as follows:

• Gross site area	=	0.97
• No. of Hotel Suite	=	116
• Unit Density (person per unit)	=	1.4
• Population = 145 suites x 1.4 persons per unit	=	203 persons
• Peaking Factor = $1 + 14 / (4 + (P/1000)^{0.5}) * K$	=	
• Peaking Factor = $1 + 14 / (4 + (162.4/1000)^{0.5}) * 0.8$	=	3.52
• Avg flow (203 x 280 L/cap/day x (1/86,400 sec/day))	=	0.66 L/sec
• Peak flow (3.52 x 0.66)	=	2.31 L/sec
• Extraneous Flow (infiltration) Allowance	=	0.28 L/ha/sec
• Infiltration Flow (0.928 ha x 0.28 L/ha/sec)	=	0.26 L/sec
• Total Peak Sewage Flow		
• Peak Sanitary Flow = 2.31 + 0.26	=	2.58 L/sec

The estimated peak sanitary flow rate from the building (including proposed renovations) is 2.58 L/sec based on City Design Guidelines.

Prior to 2010, the existing sanitary sewer lead from the building had connected in a straight line between the onsite sanitary manhole into a sanitary manhole on Carling Ave. Based on the existing invert elevation of this lead (71.35) at the sanitary manhole on Carling Avenue, a sewer slope of 0.88% was estimated.

In 2010 the City of Ottawa reconstructed Carling Avenue in along the frontage of the Best Western Plus. The existing sanitary manhole noted above was removed and the existing sanitary sewer lateral was intercepted at the property line and a new sewer lateral connected perpendicular to the new sewer main. A bend was used at the property line to connect the existing lateral to the new sanitary service.

The hotel currently has one independent 200mm diameter sanitary sewer connection to the existing 1800mm sanitary sewer on Carling Avenue. The existing 200mm sanitary sewer has a slope of 0.88%, and a full-flow capacity of 31.3 L/sec. The existing onsite sanitary sewer has adequate capacity to convey the peak sewage flow of 2.6 L/sec to the municipal sanitary sewer on Carling Avenue.

4 Stormwater Management

There are no proposed storm sewer or storm drainage works anticipated. All internal roof drainage from the additional 2 story expansion will be accommodated with the existing internal plumbing system. A review of the existing roof drains has confirmed that flow-controlled weirs are used. It is proposed that the new roof will also contain flow-controlled roof drains.

There are two (2) storm sewer connections from the site to the municipal storm sewer on Carling Avenue. The first connection consists of a 250mm storm sewer which services the building and approximately 0.43 hectares of surface catchment areas and 0.16 hectares of roof areas as shown in orange on the Figure 2 below. The second, smaller connection consists of a 200mm storm sewer discharging to the storm sewer main on Carling as is shown in blue on Figure 2 below. The smaller area is approximately 0.17 hectares, of the total 0.76 drainage areas to Carling Avenue.



Figure 2 - Onsite Storm Sewers at 1274 Carling Avenue

The estimated 2-year peak flows from these catchments are ± 83 L/sec and ± 29 L/sec respectively. The 250mm diameter storm sewer has an estimated slope of 2.0% based on as-built plans and a full-flow capacity of ± 85 L/sec. For the smaller area the 200mm storm lateral with an estimated minimum slope of 1.0% will have a full flow capacity of ± 33 L/sec.

A 2-year storm design sheet is provided in Appendix B for reference. It illustrates that the east and west 250mm & 200mm storm laterals have capacities (97% and 86%) just under the 2-year peak flows of ± 83 L/sec and ± 29 L/sec respectively.

5 Erosion and Sediment Control

During all construction activities, erosion and sedimentation shall be controlled by the following techniques:

- Filter bags shall be installed between the frame and cover of all adjacent catch basins and catch basin manhole structures where surface flows enter.
- Visual inspection shall be completed daily on sediment control methods uses, and any damage repaired immediately. Care will be taken to prevent damage during construction operations. In some cases, these barriers may be removed temporarily to accommodate the construction operations. The affected barriers will be reinstated at night when construction is completed.
- Sediment control devices will be cleaned of accumulated silt as required. The deposits will be disposed of as per the requirements of the contract.
- During the course of construction, if the engineer believes that additional prevention methods are required to control erosion and sedimentation, the contractor will install additional silt fences or other methods as required to the satisfaction of the engineer.
- Construction and maintenance requirements for erosion and sediment controls are to comply with Ontario Provincial Standard Specification (OPSS) OPSS 805 and City specifications.

6 Conclusions

This report addresses site servicing and stormwater runoff from the proposed renovations for the Best Western Plus located at 1274 Carling Ave in the City of Ottawa. The proposed 0.97-hectare development at the corner of Carling Ave and Merivale Road consists of a proposed 2-storey addition to the north side of the Best Western Plus Hotel.

The following summarizes the servicing requirements for the site:

- An estimated peak sewage flow of 2.58 L/sec was estimated based on City Guidelines. The existing 250mm sewer lateral has adequate capacity based on a slope of 2.00% and a full flow capacity of 23.6 L/sec.
- The building will be serviced by the existing single 200mm diameter PVC watermain, as it will be adequate for the 2-storey expansion.
- The estimated fire flow requirement of 233 L/sec was completed based on the FUS. A review of the total combined flow from hydrants within a 150m distance from the building was completed to confirm that adequate fire flow is available.
- The existing 250mm & 200mm storm sewers connecting to the existing truck sewer on Carling Avenue have a minimum 2-year level of service based on a time of concentration of 10 minutes. The 250mm diameter and 200mm diameter storm sewers are estimated at 97% and 86% of rate capacity.

Appendix A – Figures

Figure A1: Site Location Plan

Figure A2: Fire Hydrant Locations

Appendix B – Design Tables

Table B1: Water Demand Chart

Table B2: Fire Flow Requirements based on Fire Underwriters Survey (FUS) 1999

Table B3: Fire Flow Contributions Based on Hydrant Spacing

Table B4: Sanitary Sewer Calculation Sheet

Table B5: 2-year Storm Sewer Calculation Sheet

Appendix C – Correspondence

Pre-Consultation Meeting Minutes

Appendix D – Checklist

Development Servicing Study Checklist

Appendix E – Drawings

Project Drawings (All 11x17 Reduction, Scale: NTS)

- **Site Plan. Drawing SP-1, Revision 2**
- **Site Servicing Plan. Drawing C100, Revision 2**
- **Site Grading, Erosion and Sediment Control Plan. Drawing C200, Revision 2**

Appendix A – Figures

Figure A1: Site Location Plan

Figure A2: Fire Hydrant Locations



Best Western Plus
1274 Carling Avenue



exp Services Inc. 100-2650 Queensview Drive Ottawa, ON K2B 8H6 www.exp.com		DESIGN JLF	BEST WESTERN PLUS 1274 CARLING AVENUE OTTAWA, ONTARIO.	SCALE 1:5000
		DRAWN MZG		SKETCH NO
		DATE 2019/08/19	SITE LOCATION PLAN	FIG A1
		FILE NO OTT-00245894-A0		



exp Services Inc.
 100-2650 Queensview Drive
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 www.exp.com



DESIGN	JLF
DRAWN	MZG
DATE	2019-08-19
FILE NO	OTT-00245894-A0

BEST WESTERN PLUS
 1274 CARLING AVENUE
 OTTAWA, ONTARIO.

HYDRANT LOCATION PLAN

SCALE	1:2500
SKETCH NO	

FIG A2

Appendix B – Design Tables

Table B1: Water Demand Chart

Table B2: Fire Flow Requirements based on Fire Underwriters Survey (FUS) 1999

Table B3: Fire Flow Contributions Based on Hydrant Spacing

Table B4: Sanitary Sewer Calculation Sheet

Table B5: 2-year Storm Sewer Calculation Sheet

TABLE B1: Water Demand Chart

Location: Best Western - Carling Ave		Population Densities	
Project No: OTT-00245894		Single Family	3.4 person/unit
Designed by: J.Fitzpatrick		Semi-Detached	2.7 person/unit
Checked By: B. Thomas		Duplex	2.3 person/unit
Date Revised: August 2019		Townhome (Row)	2.7 person/unit
Water Consumption		Bachelor Apartment	1.4 person/unit
Residential =	350 L/cap/day	1 Bedroom Apartment	1.4 person/unit
Commercial =	5,000 L/1000m ² /day	2 Bedroom Apartment	2.1 person/unit
		3 Bedroom Apartment	3.1 person/unit
		4 Bedroom Apartment	4.1 person/unit
		Avg. Apartment	1.8 person/unit

Building Floors	No. of Residential Units										Total Persons (pop)	Residential Demands in (L/sec)						Commercial				Total Demands (L/sec)					
	Singles/Semis/Towns				Apartment Units							Avg. Day Demand (L/day)	Peaking Factors (x Avg Day)		Max Day Demand (L/day)	Peak Hour Demand (L/day)	Area (m ²)	Avg Demand (L/day)	Peaking Factors (x Avg Day)		Max Day Demand (L/day)	Peak Hour Demand (L/day)	Avg Day (L/s)	Max Day (L/s)	Max Hour (L/s)		
	Single Family	Semi-Detached	Duplex	Townhome	Bachelor/Suites	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom	Avg Apt.			Max Day	Peak Hour					Max Day	Peak Hour						Max Day	Peak Hour
Prop 4th floor					12						16.8	5,880	4.44	6.69	26,111	39,357									0.07	0.30	0.46
Prop 3rd floor					12						16.8	5880	4.44	6.69	26,111	39,357									0.07	0.30	0.46
EX 1st floor					34						47.6	16660	4.44	6.69	73,982	111,511									0.19	0.86	1.29
EX 2nd floor					37						51.8	18130	4.44	6.69	80,509	121,350									0.21	0.93	1.40
EX 3rd floor					25						35.0	12250	4.44	6.69	54,398	81,993									0.14	0.63	0.95
EX 4th floor					25						35.0	12250	4.44	6.69	54,398	81,993									0.14	0.63	0.95
Total =					145						203.0	71,050			315,509	475,561									0.82	3.65	5.50

PEAKING FACTORS FROM MOECC TABLE 3-3 (Peaking Factors for Water Systems Servicing Fewer Than 500 persons)

Dwelling Units Serviced	Equiv Pop	Night Min Factor	Max Day Factor	Peak Hour Factor
10	30	0.10	9.50	14.30
50	150	0.10	4.90	7.40
100	300	0.20	3.60	5.40
150	450	0.30	3.00	4.50
167	500	0.40	2.90	4.30





TABLE B3: FIRE FLOW CONTRIBUTIONS BASED ON HYDRANT SPACING

Hydrant #	Location	³ Straight Distance (m)	¹ Distance (m)	Fire Flow Contribution (L/min)	² Fire Flow Contribution (L/min)	Comment
364027H254	Carling Avenue	68	104	3800	3800	
364027H255	Carling Avenue	27	45	5700	5700	
364027H256	Carling Avenue	50	68	5700	5700	
364027H264	Carling Avenue	64	89	3800	0	Not accessible (median)
364027H058	Merivale Road	81	81	3800	0	Not accessible (median)
364027H047	Carling Avenue	140	176	0	0	Exceeds 150m
364027H059	Merivale Road	58	69	5700	0	Opposite side Merivale Road
364027H245	rue Thames Street	46	46	5700	5700	
Total Fireflow Available in L/min (L/sec)				34,200	20,900	
or L/sec				(570)	(348)	
FUS RFF in L/min					14,000	
or L/sec					(233)	
Meets Requirement (Yes/No)					Yes	
<p>Notes:</p> <p>¹Distance is measured along a road or fire route.</p> <p>²Fire Flow Contribution for Class AA Hydrant from Table 1 of Appendix I, ISTB-2018-02</p> <p>³Straight distance from hydrant or closest part of building.</p>						

TABLE B2: FIRE FLOW REQUIREMENTS BASED ON FIRE UNDERWRITERS SURVEY(FUS) 1999

PROJECT: **1274 Carling Ave**



An estimate of the Fire Flow required for a given fire area may be estimated by:

$$F = 220 * C * \text{SQRT}(A)$$

where:

F = required fire flow in litres per minute

A = total floor area in m² (including all storeys, but excluding basements at least 50% below grade)

C = coefficient related to the type of construction

Task	Options	Multiplier	Input			Value Used	Fire Flow Total (L/min)
Choose Building Frame (C)	Wood Frame	1.5	Non-combustible Construction			0.8	
	Ordinary Construction	1.0					
	Non-combustible Construction	0.8					
	Fire Resistive Construction	0.6					
Input Building Floor Areas (A)			Area	% Used	Area Used	100% of all floors	6460.0 m ²
	Floor 4		1,615	100%	1,615		
	Floor 3		1,615	100%	1,615		
	Floor 2		1,615	100%	1,615		
Floor 1 (Ground)		1,615	100%	1,615			
Basement (At least 50% below grade, not included)		0					
Fire Flow (F)	F = 220 * C * SQRT(A)						14,146
Fire Flow (F)	Rounded to nearest 1,000						14,000

Reductions/Increases Due to Factors Effecting Burning

Task	Options	Multiplier	Input			Value Used	Fire Flow Change (L/min)	Fire Flow Total (L/min)				
Choose Combustibility of Building Contents	Non-combustible	-25%	Limited Combustible			-15%	-2,100	11,900				
	Limited Combustible	-15%										
	Combustible	0%										
	Free Burning	15%										
	Rapid Burning	25%										
Choose Reduction Due to Sprinkler System	Adequate Sprinkler Conforms to NFPA13	-30%	Adequate Sprinkler Conforms to NFPA13			-5%	-571	11,329				
	No Sprinkler	0%	Not Standard Water Supply or Unavailable			0%	0	11,329				
	Standard Water Supply for Fire Department Hose Line and for Sprinkler System	-10%										
	Not Standard Water Supply or Unavailable	0%										
	Fully Supervised Sprinkler System	-10%										
	Not Fully Supervised or N/A	0%	Not Fully Supervised or N/A			0%	0	11,329				
Choose Structure Exposure Distance	Exposures	Separation Dist (m)	Cond	Separation Condition	Exposed Wall type	Exposed Wall Length				Total Charge (%)	Total Exposure Charge (L/min)	
	Side 1 (west)	55.4	6	> 45.1	Type B	Length (m)	No of Storeys	Lenth-height Factor	Sub-Condition			Charge (%)
	Side 2 (east)	22.6	4	20.1 to 30	Type A	17.6	2	35.2	4B			8%
	Front (north)	61.5	6	> 45.1	Type B	16		0	6			0%
	Back (south)	18.7	3	10.1 to 20	Type A	35	1	30	3A			12%
Obtain Required Fire Flow	Total Required Fire Flow, Rounded to the Nearest 1,000 L/min = 14,000											
	Total Required Fire Flow, L/s = 233											
	Total Capped Fire Flow based on "TECHNCAL BULLETIN ISTB-2018-02" (if applicable), L/s = 233											

Exposure Charges for Exposing Walls of Wood Frame Construction (from Table G5)

- Type A Wood-Frame or non-combustible
- Type B Ordinary or fire-resistive with unprotected openings
- Type C Ordinary or fire-resistive with semi-protected openings
- Type D Ordinary or fire-resistive with blank wall

Conditions for Separation

Separation Dist	Condition
0m to 3m	1
3.1m to 10m	2
10.1m to 20m	3
20.1m to 30m	4
30.1m to 45m	5
> 45.1m	6

Notes:

The -5% reduction for the Sprinkler System is based on 16% of total building are will be sprinklererd (16% * -30%)



TABLE B5: 2-YEAR STORM SEWER CALCULATION SHEET

Return Period Storm = **2-year** (2-year, 5-year, 100-year)
 Default Inlet Time= 10 (minutes)
 Manning Coefficient = 0.013 (dimensionless)

From Node	To Node	AREA INFO				FLOW (UNRESTRICTED)							INDIV CAP FLOW (L/s)	CUMUL CAP FLOW (L/s)	SEWER DATA										
		Area No.	Area (ha)	Σ Area (ha)	Average R	Indiv. 2.78*A*R	Accum. 2.78*A*R	Tc (mins)	I (mm/h)	Indiv. Flow	Return Period	Q (L/s)			Dia (mm) Actual	Dia (mm) Nominal	Type	Slope (%)	Length (m)	Capacity, Q _{CAP} (L/sec)	Velocity (m/s)		Time in Pipe, Tt (min)	Hydraulic Ratios	
																			Vf	Va		Q/Q _{CAP}	Va/Vf		
EX MH	Main	1 (orange) Surface Areas	0.4326	0.4326	0.80	0.962	0.962	10.00	76.81	73.9	2-year	73.9	73.9												
		1 (orange) Roof (see note)	0.1616	0.1616	0.25	0.112	1.074	10.00	76.81	8.6	2-year	82.5	8.6	82.5	251.5	250	PVC	2.00	24	85.42	1.71	1.78	0.22	0.97	1.04
EX CBMH	Main	2 (blue)	0.1676	0.1676	0.80	0.373	0.373	10.00	76.81	28.63	2-year	28.6	28.6	28.6	201.2	200	PVC	1.00	16	33.31	1.04	1.04	0.26	0.86	1.00
TOTALS =			0.76			1.447																			

Definitions:
 Q = 2.78*AIR, where
 Q = Peak Flow in Litres per second (L/s)
 A = Watershed Area (hectares)
 I = Rainfall Intensity (mm/h)
 R = Runoff Coefficients (dimensionless)

Ottawa Rainfall Intensity Values from Sewer Design Guidelines, SDG002

	a	b	c
2-year	732.951	6.199	0.810
5-year	998.071	6.053	0.814
100-year	1735.688	6.014	0.820

Designed:	Project:	
J. Fitzpatrick, P.Eng.	Best Western Plus	
Checked:	Location:	
B. Thomas, P.Eng.	2140 Baseline Road	
Dwg Reference:	File Ref:	Sheet No:
FIGURE 2 of Servicing Report	245894 Storm Design Sheet, Aug 2019.xlsx	1 of 1

Notes

1) Existing roof drains are flow controlled. Estimated 6 drains @ max 30 gpm /drain at 150mm depth (1.89 L/sec per drain)

Appendix C – Correspondence

Pre-Consultation Meeting Minutes

Bruce Thomas

From: Bruce Thomas
Sent: Tuesday, August 20, 2019 11:13 AM
To: Bruce Thomas
Subject: FW: 1272 Carling Avenue - Preconsult
Attachments: Applicant's Study and Plan Identification List.pdf

----- Forwarded message -----

From: **Bernier, John** <John.Bernier@ottawa.ca>
Date: Mon, Jun 25, 2018 at 11:34 AM
Subject: 1272 Carling Avenue - Preconsult
To: Angelo Spadola <angelomspadola@gmail.com>

Hi Angelo,

It was nice meeting you for a pre-application consultation (PC2018-0146) on June 14, 2018, regarding the redevelopment of the property at 1272 Carling Avenue. We met to discuss the development of two additional storeys (approx. 961 square metres) on an existing two-storey section at the north east corner of the Best Western Hotel. You had also mentioned the possibility of increasing the landscaping in this area, a courtyard/patio of sorts.

Planning & Design Comments:

1. *Zoning (AM10) – Arterial Mainstreet Zone Sec 185-186*

Please provide a zoning compliance schedule on the site plan (required vs. proposed). Note Section 101 (Parking), Section 111 (Bike), and Tables 113A and B (loading spaces) are applicable.

[Westgate Secondary Plan](#)

[Urban Design Guidelines for Development along Arterial Mainstreets](#)

2. Cover letter will be required which will be a brief planning rationale and design brief. Discussion will relate to how this addition will enhance and contribute to the Merivale Road and Carling Avenue corner and touch on how it is consistent with the policies and guidelines above.

3. Attention should be given to the blank wall that is existing at this corner and ways in which your proposal could soften (with landscaping)/break this up (with design).

4. The landscape plan will need to be stamped by a landscape architect, as it is a requirement in our study guidelines.
5. Indicate on Site and Landscape Plans where snow storage will be accommodated. If snow will be taken off-site, please note this on plans.
6. Please include fire route on Site Plan.
7. There is a requirement for road widening. This site requires protection of 44.5m (22.25 metres from centreline) on Carling Avenue, and 26m (13 metres from centreline) on Merivale Road (See further detail in Transportation comments below). Your surveyor will need to provide confirmation of the amount of land that will be transferred to the City, indicated on a draft survey plan. All setbacks are to be taken from the new property line and permanent features will not be permitted within this land.
8. Correct address is 1272 Carling Avenue – please reference on all plans and reports submitted.

City Forester Comments:

9. Trees should be planted to break up the vast parking area directly adjacent to Woodroffe and Carling.
10. Tree species chosen should be salt tolerant and hardy to Ottawa’s climate.
11. A minimum of 30m³ of available soil should be provided for each tree.
12. Please contact Mark Richardson (Mark.Richardson@ottawa.ca / ext. 23839) for further questions.

Transportation:

13. A Noise Study will be required.
14. Carling Avenue is designated as an Arterial road within the City’s Official Plan with a ROW protection limit of 44.5 metres. The ROW protection limit and the offset distance (22.25 metres) are to be dimensioned from the existing centerline of pavement and shown on the drawings.
15. Merivale Road is designated as an Arterial road within the City’s Official Plan with a ROW protection limit of 26.0 metres. The ROW protection limit and the offset distance (13.0 metres) are to be dimensioned from the existing centerline of pavement and shown on the drawings.
16. **ROW interpretation** – Land for a road widening will be taken equally from both sides of a road, measured from the centreline in existence at the time of the widening if required by the City. The centreline is a line

running down the middle of a road surface, equidistant from both edges of the pavement. In determining the centreline, paved shoulders, bus lay-bys, auxiliary lanes, turning lanes and other special circumstances are not included in the road surface.

17. A 5.0 metres x 5.0 metres sight triangle would be required at the intersection of Carling Avenue and Merivale Road and is to be shown on all drawings. The sight triangle dimensions are to be measured from the protected ROW limits.

18. The TIA (Transportation Impact Assessment) Guidelines (2017) were approved by Transportation Committee and City Council on June 14, 2017. The new version of the TIA Guidelines (2017) that are posted on the web are now to be used for the TIA Submission for development applications. The following list highlights the significant changes to the 2006 TIA Guidelines;

1. A Screening Test (Step 1) quickly determines if a transportation study is required. Consultants should fill in the form in Appendix B.
2. Study Scope (Step 2) is site specifically tailored; there are no longer three defined types of TIA reports. Scoping report is required and needs to be signed off by TPM before the consultant moves on to Forecasting volumes.
3. Sign off from City Transportation Project Manager is required at key points in the review process prior to TIA Submission (Step 5). See Figure 1 on page 9 for a good flow chart of the process.
4. Multi Modal Level of Service (MMLOS) and Complete Street analysis is required to assess the impact of all modes of travel rather than just vehicle traffic.
5. There is no longer a requirement for consultant pre-approval. Consultants must now sign and submit the Credentials Form included in the Appendix A with each TIA report.
6. The TIA Submission (report, drawings and/or monitoring plan) is required **with** the development application.

Click on the website:

http://documents.ottawa.ca/sites/documents.ottawa.ca/files/tia_guidelines_en.pdf

19. For more information on this please contact the Transportation Project Manager, Wally Dubyk (Wally.Dubyk@ottawa.ca / ext. 13783).

Engineering Comments:

20. The Servicing Study Guidelines for Development Applications are available at the following address: <http://ottawa.ca/en/development-application-review-process-0/servicing-study-guidelines-development-applications>

21. Servicing and site works shall be in accordance with the following documents:

- ⇒ Ottawa Sewer Design Guidelines (October 2012)
- ⇒ Ottawa Design Guidelines – Water Distribution (2010)
- ⇒ Geotechnical Investigation and Reporting Guidelines for Development Applications in the City of Ottawa (2007)
- ⇒ City of Ottawa Slope Stability Guidelines for Development Applications (revised 2012)
- ⇒ City of Ottawa Environmental Noise Control Guidelines (January, 2016)
- ⇒ City of Ottawa Park and Pathway Development Manual (2012)
- ⇒ City of Ottawa Accessibility Design Standards (2012)
- ⇒ Ottawa Standard Tender Documents (latest version)
- ⇒ Ontario Provincial Standards for Roads & Public Works (2013)

22. Any proposed changes to the stormwater management on site will require an accompanying stormwater management brief. Any increase in stormwater volume generated by the development must be stored on site.

23. For more information on this please contact Project Manager, Adam Baker (Adam.Baker@ottawa.ca / ext. 26552)

Application and Fees:

The proposed application will be a [Site Plan Control](#) Application (New - Manager Approval, Public Consultation), which costs **\$6,691.36** (click here for exact [fees](#)), plus the engineering design review and inspection fee, legal fees, as well as conservation authority fee of \$105.

Please find attached the “Applicant’s Study and Identification List” including the number of copies required for each in order for the application to be deemed complete. Here is the link to the guide for preparing studies and plans: <http://ottawa.ca/en/city-hall/planning-and-development/how-develop-property/development-application-review-process-2-3>

Best regards,

John Bernier

Planner

Development Review South

City of Ottawa | Ville d'Ottawa

 613.580.2424 ext/poste. 21576

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200-1645 Russell Road
Ottawa, On. K1G 4G5
Tel: 613. 228. 7190
fax: 613. 228. 8690
angelomspadola@gmail.com



APPLICANT'S STUDY AND PLAN IDENTIFICATION LIST

Legend: **S** indicates that the study or plan is required with application submission.
A indicates that the study or plan may be required to satisfy a condition of approval/draft approval.

For information and guidance on preparing required studies and plans refer to:

<http://ottawa.ca/en/development-application-review-process-0/guide-preparing-studies-and-plans>

S/A	Number of copies	ENGINEERING		S/A	Number of copies
S	7	1. Site Servicing Plan	2. Servicing & Stormwater Management Brief to identify if the current services will be adequate for the proposed addition	S	3
S	7	1. Grade Control and Drainage Plan	2. Geotechnical Study	S	3
	2	3. Composite Utility Plan	4. Groundwater Impact Study		6
	5	5. Servicing Options Report	6. Wellhead Protection Study		6
S	9	7. Transportation Impact Assessment **Follow steps online to determine if this is required**	8. Erosion and Sediment Control Plan (may be included on grading plan)	S	7
	3	9. Storm water Management Report	10. Hydro geological and Terrain Analysis		8
	3	11. Hydraulic Water main Analysis	12. Noise / Vibration Study		3
	35/50/55	13. Roadway Modification Design Plan	14. Confederation Line Proximity Study		9

S/A	Number of copies	PLANNING / DESIGN / SURVEY		S/A	Number of copies
	50	15. Draft Plan of Subdivision	16. Plan Showing Layout of Parking Garage		2
	30	17. Draft Plan of Condominium	18. Planning Rationale / Design Brief	S	3
S	7	19. Site Plan	20. Minimum Distance Separation (MDS)		3
	20	21. Concept Plan Showing Proposed Land Uses and Landscaping	22. Agrology and Soil Capability Study		5
	3	23. Concept Plan Showing Ultimate Use of Land	24. Cultural Heritage Impact Statement		3
S	7	25. Landscape Plan	26. Archaeological Resource Assessment Requirements: S (site plan) A (subdivision, condo)		3
S	2	27. Survey Plan	28. Shadow Analysis		3
S	3	29. Architectural Building Elevation Drawings (dimensioned)	30. Design Brief (includes the Design Review Panel Submission Requirements)		Available online

S/A	Number of copies	ENVIRONMENTAL		S/A	Number of copies
	3	31. Phase 1 Environmental Site Assessment	32. Impact Assessment of Adjacent Waste Disposal/Former Landfill Site		6
	5	33. Phase 2 Environmental Site Assessment (depends on the outcome of Phase 1)	34. Assessment of Landform Features		7
	4	35. Record of Site Condition	36. Mineral Resource Impact Assessment		4
	3	37. Tree Conservation Report (including EIS for butternuts)	38. Environmental Impact Statement / Impact Assessment of Endangered Species		11
	4	39. Mine Hazard Study / Abandoned Pit or Quarry Study	40. Integrated Environmental Review (Draft, as part of Planning Rationale)		3

S/A	Number of copies	ADDITIONAL REQUIREMENTS		S/A	Number of copies
S	1	41. Cd or usb with pdfs	42.		

Meeting Date: June 14, 2018

Application Type: *Site Plan Control*

File Lead (Assigned Planner): John Bernier

Infrastructure Approvals Project Manager: Adam Baker

Site Address (Municipal Address): 1272 Carling

*Preliminary Assessment: 1 2 3 4 5

*One (1) indicates that considerable major revisions are required before a planning application is submitted, while five (5) suggests that proposal appears to meet the City's key land use policies and guidelines. **This assessment is purely advisory and does not consider technical aspects of the proposal or in any way guarantee application approval.**

It is important to note that the need for additional studies and plans may result during application review. If following the submission of your application, it is determined that material that is not identified in this checklist is required to achieve complete application status, in accordance with the Planning Act and Official Plan requirements, the Planning, Infrastructure and Economic Development Department will notify you of outstanding material required within the required 30 day period. Mandatory pre-application consultation will not shorten the City's standard processing timelines, or guarantee that an application will be approved. It is intended to help educate and inform the applicant about submission requirements as well as municipal processes, policies, and key issues in advance of submitting a formal development application. This list is valid for one year following the meeting date. If the application is not submitted within this timeframe the applicant must again pre-consult with the Planning, Infrastructure and Economic Development Department.

Appendix D – Checklist

Development Servicing Study Checklist

4.1 General Content

- Executive Summary (for larger reports only).

Comments:

- Date and revision number of the report.

Comments:

- Location map and plan showing municipal address, boundary, and layout of proposed development.

Comments:

- Plan showing the site and location of all existing services.

Comments:

- 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.

Comments:

- Summary of Pre-consultation Meetings with City and other approval agencies.

Comments:

- 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.

Comments:

- Statement of objectives and servicing criteria.

Comments:

- Identification of existing and proposed infrastructure available in the immediate area.

Comments:

- 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).

Comments:

- 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.

Comments:

- 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.

Comments:

- Proposed phasing of the development, if applicable.

Comments:

- Reference to geotechnical studies and recommendations concerning servicing.

Comments:

- 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

Comments:

4.2 Development Servicing Report: Water

- Confirm consistency with Master Servicing Study, if available
Comments:
- Availability of public infrastructure to service proposed development
Comments:
- Identification of system constraints
Comments:
- Identify boundary conditions
Comments:
- Confirmation of adequate domestic supply and pressure
Comments:
- 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.
Comments:
- 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.
Comments:
- Definition of phasing constraints. Hydraulic modeling is required to confirm servicing for all defined phases of the project including the ultimate design
Comments:
- Address reliability requirements such as appropriate location of shut-off valves
Comments:
- Check on the necessity of a pressure zone boundary modification.
Comments:

- 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

Comments:

- 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.

Comments:

- 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.

Comments:

- Confirmation that water demands are calculated based on the City of Ottawa Design Guidelines.

Comments:

- Provision of a model schematic showing the boundary conditions locations, streets, parcels, and building locations for reference.

Comments:

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).

Comments:

- Confirm consistency with Master Servicing Study and/or justifications for deviations.

Comments:

- 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.

Comments:

- Description of existing sanitary sewer available for discharge of wastewater from proposed development.

Comments:

- 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)

Comments:

- Identification and implementation of the emergency overflow from sanitary pumping stations in relation to the hydraulic grade line to protect against basement flooding.

Comments:

- Special considerations such as contamination, corrosive environment etc.

Comments:

4.4 Development Servicing Report: Stormwater

- Description of drainage outlets and downstream constraints including legality of outlets (i.e. municipal drain, right-of-way, watercourse, or private property)

Comments:

- Analysis of available capacity in existing public infrastructure.

Comments:

- A drawing showing the subject lands, its surroundings, the receiving watercourse, existing drainage patterns, and proposed drainage pattern.

Comments:

- 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.

Comments:

- Water Quality control objective (basic, normal or enhanced level of protection based on the sensitivities of the receiving watercourse) and storage requirements.

Comments:

- Description of the stormwater management concept with facility locations and descriptions with references and supporting information.

Comments:

- Set-back from private sewage disposal systems.

Comments:

- Watercourse and hazard lands setbacks.

Comments:

- Record of pre-consultation with the Ontario Ministry of Environment and the Conservation Authority that has jurisdiction on the affected watershed.

Comments:

- Confirm consistency with sub-watershed and Master Servicing Study, if applicable study exists.

Comments:

- Storage requirements (complete with calculations) and conveyance capacity for minor events (1:5 year return period) and major events (1:100 year return period).

Comments:

- Identification of watercourses within the proposed development and how watercourses will be protected, or, if necessary, altered by the proposed development with applicable approvals.

Comments:

- 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.

Comments:

- Any proposed diversion of drainage catchment areas from one outlet to another.

Comments:

- Proposed minor and major systems including locations and sizes of stormwater trunk sewers, and stormwater management facilities.

Comments:

- 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.

Comments:

- Identification of potential impacts to receiving watercourses

Comments:

- Identification of municipal drains and related approval requirements.

Comments:

- Descriptions of how the conveyance and storage capacity will be achieved for the development.

Comments:

- 100 year flood levels and major flow routing to protect proposed development from flooding for establishing minimum building elevations (MBE) and overall grading.

Comments:

- Inclusion of hydraulic analysis including hydraulic grade line elevations.

Comments:

- Description of approach to erosion and sediment control during construction for the protection of receiving watercourse or drainage corridors.

Comments:

- 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.

Comments:

- Identification of fill constraints related to floodplain and geotechnical investigation.

Comments:

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.

Comments:

- Application for Certificate of Approval (CofA) under the Ontario Water Resources Act.

Comments:

- Changes to Municipal Drains.

Comments:

- Other permits (National Capital Commission, Parks Canada, Public Works and Government Services Canada, Ministry of Transportation etc.)

Comments:

4.6 Conclusion Checklist

- Clearly stated conclusions and recommendations

Comments:

- 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.

Comments:

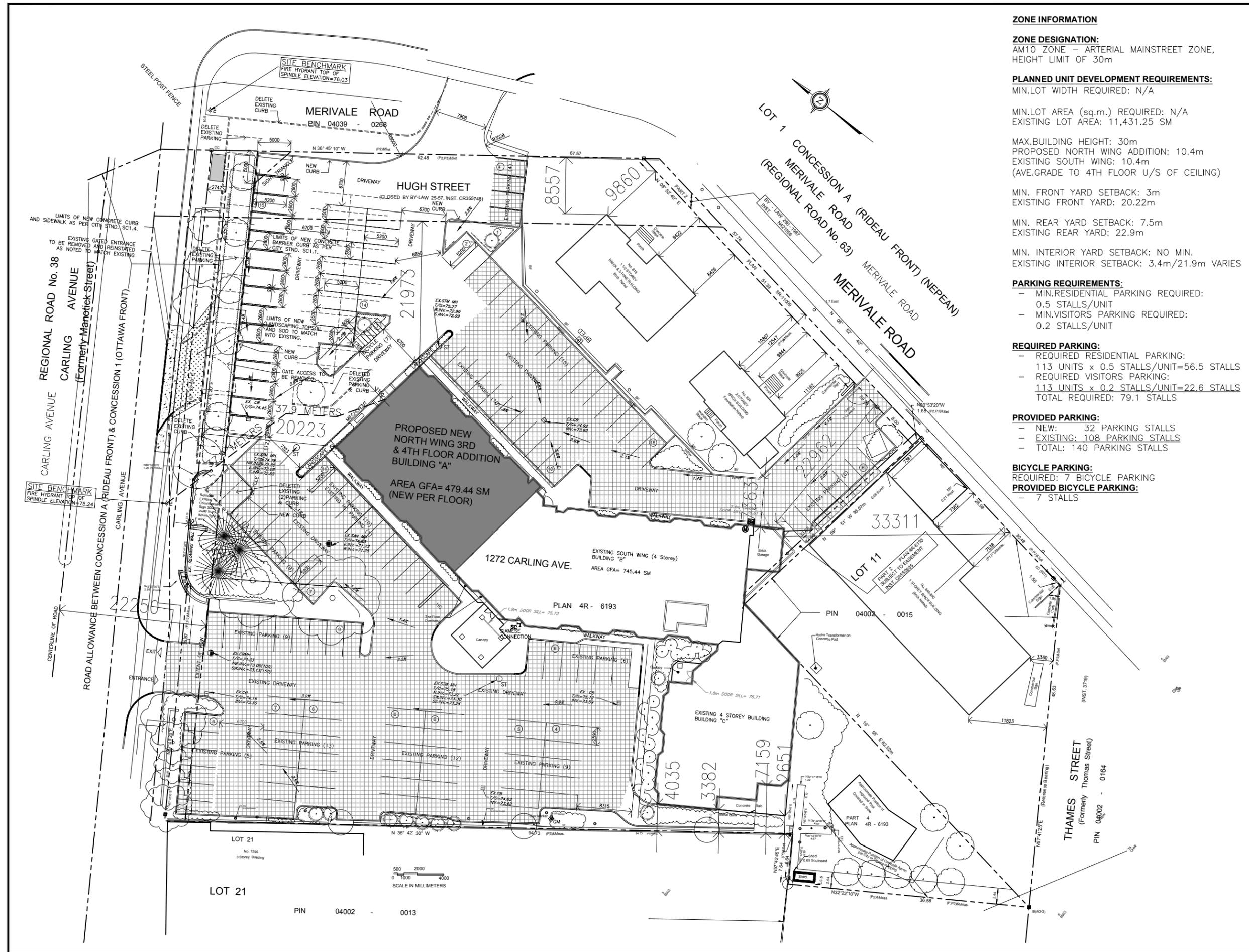
- All draft and final reports shall be signed and stamped by a professional Engineer registered in Ontario

Comments:

Appendix E – Drawings

Project Drawings (All 11x17 Reduction, Scale: NTS)

- **Site Plan. Drawing SP-1, Revision 2**
- **Site Servicing Plan. Drawing C100, Revision 2**
- **Site Grading, Erosion and Sediment Control Plan. Drawing C200, Revision 2**



ZONE INFORMATION

ZONE DESIGNATION:
AM10 ZONE – ARTERIAL MAINSTREET ZONE,
HEIGHT LIMIT OF 30m

PLANNED UNIT DEVELOPMENT REQUIREMENTS:
MIN.LOT WIDTH REQUIRED: N/A

MIN.LOT AREA (sq.m.) REQUIRED: N/A
EXISTING LOT AREA: 11,431.25 SM

MAX.BUILDING HEIGHT: 30m
PROPOSED NORTH WING ADDITION: 10.4m
EXISTING SOUTH WING: 10.4m
(AVE.GRADE TO 4TH FLOOR U/S OF CEILING)

MIN. FRONT YARD SETBACK: 3m
EXISTING FRONT YARD: 20.22m

MIN. REAR YARD SETBACK: 7.5m
EXISTING REAR YARD: 22.9m

MIN. INTERIOR YARD SETBACK: NO MIN.
EXISTING INTERIOR SETBACK: 3.4m/21.9m VARIES

PARKING REQUIREMENTS:

- MIN.RESIDENTIAL PARKING REQUIRED:
0.5 STALLS/UNIT
- MIN.VISITORS PARKING REQUIRED:
0.2 STALLS/UNIT

REQUIRED PARKING:

- REQUIRED RESIDENTIAL PARKING:
113 UNITS x 0.5 STALLS/UNIT=56.5 STALLS
- REQUIRED VISITORS PARKING:
113 UNITS x 0.2 STALLS/UNIT=22.6 STALLS
- TOTAL REQUIRED: 79.1 STALLS

PROVIDED PARKING:

- NEW: 32 PARKING STALLS
- EXISTING: 108 PARKING STALLS
- TOTAL: 140 PARKING STALLS

BICYCLE PARKING:

- REQUIRED: 7 BICYCLE PARKING
- PROVIDED BICYCLE PARKING:
- 7 STALLS



ANGELO MATTIA SPADOLA
ARCHITECT
200-1645 RUSSELL ROAD, OTTAWA, ONTARIO K1G 4G5
TEL. 613 228 7190

NO.	REVISIONS	DATE
1	ISSUED FOR COORDINATION	01-27-19
2	ISSUED FOR SITE PLAN APPLICATION	08-03-19
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

NOTE:
THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECT FOR HIS WRITTEN PERMISSION BEFORE PROCEEDING WITH WORK.
NOT FOR CONSTRUCTION UNLESS SIGNED BY THE ARCHITECT.

CONSULTANTS:

STRUCTURAL:	EXP
MECHANICAL:	EXP
ELECTRICAL:	EXP
LANDSCAPE:	STANTEC
CIVIL:	STANTEC

PROJECT:
BEST WESTERN PLUS
ADDITION

LOCATION:
1272 CARLING AVE.
OTTAWA, ONTARIO

DWG TITLE:
SITE PLAN

DATE: 2018-08-22
SCALE: 1:20
FILE NAME: PROJECT #: 000

DESIGNED BY: AMS
DRAWN BY: JV
APPROVED BY: AMS

DRAWING NO: **SP-1**

ONTARIO ASSOCIATION OF ARCHITECTS
ANGELO M. SPADOLA
LICENCE 4339

