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SITE SERVICING AND STORMWATER MANAGEMENT

FOR

WELLDALE LIMITED PARTNERSHIP
1186-1194 WELLINGTON STREET WEST

CITY OF OTTAWA

PROJECT NO.: 20-1188

JULY 29TH 2022

SITE SERVICING AND STORMWATER MANAGEMENT
FOR
1186-1194 WELLINGTON STREET WEST

WELLDALE LIMITED PARTNERSHIP

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

SITE SERVICING AND STORMWATER MANAGEMENT
FOR 1186-1194 WELLINGTON STREET WEST
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1.0 INTRODUCTION

David Schaeffer Engineering Limited (DSEL) has been retained by Welldale Limited Partnership to prepare a Site Servicing and Stormwater Management report in support of the application for a Site Plan Control (SPC) at 1186-1194 Wellington Street West.

The subject property is located within the City of Ottawa urban boundary, in the Kitchissippi Ward (Ward 15). As illustrated in ***Figure 1***, below, the subject property is bounded Parkdale Avenue to the east, Wellington Street West to the north, and Hamilton Avenue to the west. To the south is a laneway between Parkdave Ave. and Hamilton Ave. that provides access to the existing properties as well as the church and parking lot located to the south of the subject properties. The subject property measures approximately ***0.25 ha*** and is designated Traditional Main Street (TM11[1815]) within 1186 Wellington Street West and Traditional Main Street (TM11) within 1188 & 1194 Wellington Street West under the current City of Ottawa zoning by-law.

Figure 1: Site Location

The proposed development involves the construction of a 16-storey residential/commercial building, consisting of ***212*** apartment units***, 1,148m^2*** of ground level retail space, and **3 levels** of underground parking accessed from the expanded rear drive isle. The proposed layout is shown in the ***Site Plan*** prepared by Dialog included in ***Drawings***.

The objective of this report is to provide sufficient detail to demonstrate that the proposed development is supported by existing municipal services and that the site design conforms to current City of Ottawa design standards.

1.1 Existing Conditions

The existing site includes two commercial/institutional buildings with an asphalt parking lot. The elevations range between 65.5m and 65.9m with a minimal grade change of approximately 0.4m from the Northeast to the Southwest corner of the property.

Sewer and watermain mapping collected from the City of Ottawa indicate that the following services exist across the property frontages within the adjacent municipal right-of-ways:

Hamilton Avenue

- 203 mm diameter PVC watermain;
- 525 mm diameter concrete storm sewer tributary to the Ottawa River, approximately 1.9 km downstream; and
- 250 mm diameter PVC sanitary sewer tributary to the Cave Creek Collector trunk sewer.

Wellington Street West

- 305 mm diameter PVC watermain;
- 375 mm diameter PVC storm sewer tributary to the Ottawa River, approximately 1.9 km downstream; and
- 250 mm diameter PVC sanitary sewer tributary to the Cave Creek Collector trunk sewer.

Parkdale Avenue

- 305 mm diameter ductile iron watermain;
- 600 mm diameter concrete sanitary sewer tributary to the Cave Creek Collector trunk sewer; and
- 600 mm diameter concrete storm sewer tributary to the Ottawa River, approximately 2 km downstream.

1.2 Required Permits / Approvals

The proposed development is subject to the site plan control approval process. The City of Ottawa must approve the engineering design drawings and reports prior to the issuance of site plan control.

The proposed development does not connect to a combined sewer system and does not propose industrial uses. The development plan proposes to construct a single building across three parcels of land along with a common drive aisle supporting the subject property as well as 45 Hamilton Avenue and 416 Parkdale Avenue. Since the development is contemplated to service multiple parcels with a set of service laterals, an ECA is not anticipated to be required for the subject site.

External stormwater drainage currently enters the subject site via the rear drive aisle and therefore relies on the existing stormwater system.

1.3 Pre-consultation

Pre-Consultation was conducted with the City of Ottawa on July 29, 2020.City representatives from the transportation, public works, and planning departments were available at the meeting. An overview of the overall site servicing was presented by DSEL. Pre-consultation meeting minutes, along with the servicing guidelines checklist, is located in ***Appendix A***.

Further pre-consultation was conducted with the Rideau Valley Conservation Authority via email on November 16, 2021. Associated correspondence is located in ***Appendix A***.

2.0 GUIDELINES, PREVIOUS STUDIES, AND REPORTS

2.1 Existing Studies, Guidelines, and Reports

The following studies were utilized in the preparation of this report:

- **Ottawa Sewer Design Guidelines**,
  City of Ottawa, *SDG002,* October 2012.
  (City Standards)

  - **Technical Bulletin ISDTB-2014-01**
    City of Ottawa, February 5, 2014.
    (*ISDTB-2014-01*)

  - **Technical Bulletin PIEDTB-2016-01**
    City of Ottawa, September 6, 2016.
    (*PIEDTB-2016-01*)

  - **Technical Bulletin ISTB-2018-01**
    City of Ottawa, March 21, 2018.
    (*ISTB-2018-01*)

  - **Technical Bulletin ISTB-2018-03**
    City of Ottawa, March 21, 2018.
    (*ISTB-2018-03*)

  - **Technical Bulletin ISTB-2019-01**
    City of Ottawa, January, 2019.
    (*ISTB-2019-01*)

  - **Technical Bulletin ISTB-2019-02**
    City of Ottawa, July 8, 2019.
    (*ISTB-2019-02*)

- **Ottawa Design Guidelines – Water Distribution**
  City of Ottawa, July 2010.
  (Water Supply Guidelines)

  - **Technical Bulletin ISD-2010-2**
    City of Ottawa, December 15, 2010.
    (*ISD-2010-2*)

  - **Technical Bulletin ISDTB-2014-02**
    City of Ottawa, May 27, 2014.
    (*ISDTB-2014-02*)

- **Technical Bulletin ISTB-2018-02**
  City of Ottawa, March 21, 2018.
  (*ISTB-2018-02*)

- **Technical Bulletin ISTB-2021-03**
  City of Ottawa, August 18, 2021
  (ISTB-2021-03)

- **Design Guidelines for Sewage Works,**
  Ministry of the Environment, 2008.
  (MOE* Design Guidelines*)

- **Stormwater Planning and Design Manual,**
  Ministry of the Environment, March 2003.
  (SWMP Design Manual)

- **Ontario Building Code Compendium**
  Ministry of Municipal Affairs and Housing Building Development Branch, January 1, 2010 Update.
  (OBC)

3.0 WATER SUPPLY SERVICING

3.1 Existing Water Supply Services

The subject property lies within the City of Ottawa 1W pressure zone, as shown by the Pressure Zone map in ***Appendix B***. A 203 mm diameter watermain exists within Hamilton Avenue, a 305 mm diameter watermain exists within Wellington Street West, and a 305 mm diameter watermain exists within Parkdale Avenue.

3.2 Water Supply Servicing Design

The subject property is proposed to have two connections to the municipal watermain; a 150 mm diameter service lateral connected to the existing 203 mm diameter watermain within Hamilton Street and a 150 mm diameter service lateral connected to the existing 305 mm watermain within Wellington Street West.

The development will be serviced by the existing fire hydrants located on Hamilton Avenue near the Wellington Street West intersection and 45 Hamilton Ave., as well as the hydrant located on Parkdale Ave. near the intersection with Wellington St. W. Refer to drawing ***EX-1*** for hydrant locations.

Table 1, below, summarizes the ***Water Supply Guidelines*** employed in the preparation of the preliminary water demand estimate.

Table 1
Water Supply Design Criteria

Design Parameter	Value
Residential Average Apartment	1.8 P/unit
Residential Average Daily Demand	280 L/d/P
Residential Maximum Daily Demand	3 x Average Daily *
Residential Maximum Hourly	4.5 x Average Daily *
Commercial Retail	2.5 L/m^2/d
Commercial Maximum Daily Demand	1.5 x avg. day
Commercial Maximum Hour Demand	1.8 x max. day
Minimum Watermain Size	150 mm diameter
Minimum Depth of Cover	2.4 m from top of watermain to finished grade
During normal operating conditions desired operating pressure is within	350 kPa and 480 kPa
During normal operating conditions pressure must not drop below	275 kPa
During normal operating conditions pressure must not exceed	552 kPa
During fire flow operating pressure must not drop below	140 kPa

Daily average based on Appendix 4-A from **Water Supply Guidelines*
*** Residential Max. Daily and Max. Hourly peaking factors per MOE Guidelines for Drinking-Water Systems Table 3-3 for 0 to 500 persons.*
-Table updated to reflect ISD-2010-2

The City of Ottawa was contacted to obtain boundary conditions associated with the estimated water demand as indicated in the boundary request correspondence included in ***Appendix B***.

Table 2, below, summarizes the estimated water supply demand and boundary conditions for the proposed development based on the ***Water Supply Guidelines***.

Table 2
Water Demand, Boundary Conditions and Proposed Conditions

	Design	Boundary Conditions			
Design Parameter	**Design Demand[1] (L/min)**	**Estimated Demand[2] (L/min)**	**Boundary Condition[3] (m H_2O / kPa) Wellington St. W.**	**Boundary Condition[3] (m H_2O / kPa) Hamilton Ave.**	**Boundary Condition[3] (m H_2O / kPa) Parkdale Ave.**
Average Daily Demand	76.3	86.3	114.5 / 481.7	114.5 / 480.7	114.5 / 482.2
Max Day + Fire Flow (per FUS)	10,225.8	11,255.5	109.5 / 432.6	106.7 / 404.2	109.5 / 433.1
Peak Hour	339.6	384.2	108.0 / 417.9	108.0 / 416.9	108.0 / 418.4

1) Water demand calculation per ***Water Supply Guidelines***. See ***Appendix B*** for detailed calculations.
2) Estimated demand parameters used to determine boundary conditions vary slightly from estimated demand parameters derived from the final design. The minor differences would not result in a significant change to the boundary conditions and as such the original boundary conditions have been maintained.
3) Boundary conditions above for Wellington St. W., Hamilton Ave., and Parkdale Ave. assumed ground elevation equal to 65.5 m

The City provided both the anticipated minimum and maximum water pressures, as well as, the estimated water pressure during fire flow, as indicated by the correspondence in ***Appendix B***. As demonstrated in ***Table 2***, pressures in average day scenario are within the recommended pressures, as per the ***Water Supply Guidelines,*** therefore no pressure reducing controls are required. Based on the boundary conditions provided by the City of Ottawa, sufficient supply is available for fire flow.

Fire flow requirements are to be determined in accordance with City of Ottawa ***Water Supply Guidelines*** and the Ontario Building Code.

Fire flow requirements were estimated per City of Ottawa Technical Bulletin ***ISTB-2018-02***. The following parameters were coordinated with the architect:

- Type of construction – Modified Fire-Resistive;
- Occupancy type – Non-Combustible; and
- Sprinkler Protection – Supervised Sprinklered.

The above assumptions result in an estimated fire flow of approximately ***10,000 L/min***, refer to supporting calculation in ***Appendix B***. A certified fire protection system specialist

would need to be employed to design the building fire suppression system and confirm the actual fire flow demand.

Multiple hydrants are required to meet the required fire flow per ***ISTB-2018-02.*** There are three hydrants immediately adjacent (<75m) to the subject property:

- Hamilton Ave. N., on the north west corner of the site,
- Hamilton Ave. N., approximately 10m south of the site, and
- Parkdale Avenue, approximately 20m east of the site.

The proximity of the existing hydrants and the AA rating as indicated by colour provides 17,100 L/min to the subject property, exceeding the required fire flow.

3.3 Water Supply Conclusion

The subject property is proposed to have a dual connection to the municipal watermain within Hamilton Avenue and Wellington Street West via 150 mm diameter services.

It is proposed that the development will be serviced by the nearest existing fire hydrants located on Hamilton Avenue, and Parkdale.

The anticipated water demand was submitted to the City of Ottawa for establishing boundary conditions. The City provided both the anticipated minimum and maximum water pressures, as well as the estimated water pressure during fire flow. Based on the City's model, the municipal system is capable of delivering water within the ***Water Supply Guidelines*** pressure range.

The proposed water supply design conforms to all relevant City Guidelines and Policies.

4.0 WASTEWATER SERVICING

4.1 Existing Wastewater Services

The subject site lies within the Cave Creek Collector Sewer catchment area, as shown by the City sewer mapping included in ***Appendix C***. A 250 mm diameter sanitary sewer exists within Hamilton Avenue North, a 250mm diameter sanitary sewer exists within Wellington Street West, and a 600 mm diameter sanitary sewer exists within Parkdale.

4.2 Wastewater Design

The development is proposed to connect to the existing 250 mm sanitary sewer on Hamilton Avenue North. Refer to drawing ***SSP-1,*** located in ***Drawings/Figures***, for a detailed servicing layout. Wastewater flow from the development is proposed to ultimately discharge into the Cave Creek Collector Sewer on Spencer Street via the local sanitary sewer system.

Table 3, below***,*** summarizes the ***City Standards*** employed in the design of the proposed wastewater sewer system.

Table 3
Wastewater Design Criteria

Design Parameter	Value
Residential Average Apartment	1.8 P/unit
Average Daily Demand	280 L/d/per
Peaking Factor	Harmon's Peaking Factor. Max 4.0, Min 2.0 Harmon's Corrector Factor 0.8
Commercial Floor Space	2.5 L/m^2/d
Infiltration and Inflow Allowance	0.01 L/s/ha (Dry Weather) 0.07 L/s/ha (Wet Weather) 0.08 L/s/ha (Total)
Sanitary sewers are to be sized employing the Manning's Equation	$Q = \frac{1}{n} A R^{2/3} S^{1/2}$
Minimum Sewer Size	200 mm diameter
Minimum Manning's 'n'	0.013
Minimum Depth of Cover	2.5 m from crown of sewer to grade
Minimum Full Flowing Velocity	0.6 m/s
Maximum Full Flowing Velocity	3.0 m/s
Extracted from Sections 4 and 6 of the City of Ottawa Sewer Design Guidelines, October 2012.	

Table 4, below, presents the estimated peak flow from the proposed development. See ***Appendix C*** for associated calculations.

Table 4
Summary of Estimated Peak Wastewater Flow

Design Parameter	Total Flow (L/s)
Estimated Average Dry Weather Flow	2.36
Estimated Peak Dry Weather Flow	6.11
Estimated Peak Wet Weather Flow	6.18

The estimated sanitary flow based on the ***Site Plan,*** included in ***Drawings/Figures,*** results in a peak wet weather flow of ***6.18 L/s***.

A sanitary analysis was conducted for the local municipal sanitary sewers located across the frontage of the subject property in order to assess the available capacity. City of Ottawa Sewer Design Guidelines (2012) Figure 4.3 'Peak Flow Design Parameters' were employed to generate a conservative estimate of the existing wastewater flow conditions within the sewer.

The catchment area serviced by the Hamilton Avenue and Wellington Street West sanitary sewers were identified and evaluated by reviewing existing development and zoning within the area. The analysis was conducted from the site to the intersection of Hinton Avenue North and Armstrong Street, as shown by the sanitary drainage figure located in ***Appendix C***. Based on the sanitary analysis, the controlling section of the local sewer system is located within Hamilton Avenue (section MH3-4) with an available residual capacity of ***36.9 L/s***; detailed calculations are included in ***Appendix C***.

The catchment area serviced by the Parkdale Avenue sanitary sewer was identified and evaluated by reviewing existing development and zoning within the area. The analysis was conducted from the site to the intersection of Oxford Street and Parkdale Avenue, as shown by the sanitary drainage figure located in ***Appendix C***. Based on the sanitary analysis, the controlling section of the local sewer system is located between the Parkdale and Wellington Street West intersection to the Grant Street and Parkdale Avenue intersection (section MH2-4) with an available residual capacity of ***166.0 L/s***; detailed calculations are included in ***Appendix C***.

It is proposed to increase the peak wastewater flow by ***6.18 L/s***. Based on the available information and desktop analysis there is sufficient residual capacity available in either of the receiving sewers. For the benefit of grouping building services into a single location and to avoid excavation and disruption of traffic on arterial roads, a wastewater service connection to Hamilton Avenue is proposed.

4.3 Wastewater Servicing Conclusions

The site is tributary to the Cave Creek Trunk Collector sewer. The development is estimated to generate a peak wet weather flow of ***6.18 L/s,*** directed to the 250 mm sanitary sewer on Hamilton Street.

Based on the sanitary analysis completed, there exists a residual capacity of ***36.9 L/,*** available in the most restrictive section of the Hamilton Avenue sewer. Therefore, there is sufficient capacity to accommodate the anticipated peak wet weather flow from the proposed development.

The proposed wastewater design conforms to all relevant City Standards.

5.0 STORMWATER MANAGEMENT

5.1 Existing Stormwater Services

Stormwater runoff from the subject property is tributary to the City of Ottawa sewer system located within the Ottawa Central sub-watershed. As such, approvals for proposed development within this area are under the approval authority of the City of Ottawa.

Flows that influence the watershed in which the subject property is located are further reviewed by the principal authority. The subject property is located within the Ottawa River watershed, and is therefore subject to review by the Rideau Valley Conservation Authority (RVCA).

There are two existing CBs located within the subject site. The first CB is located behind 1188 Wellington Street West and the second is located within the parking lot at 1186 Wellington Street West.

As per the Existing Drainage figure, located within ***Appendix D***, external drainage areas south of the site (Area EX-2 and EX-3) drain towards the subject site via overland flow. EX2 flows overland and is collected by the catchbasins within the subject property. EX3 flows overland to the parking area off site where it is collected by two additional existing catchbasins. Based on observations from a field investigation, the west catchbasin is believed to outlet to Hamilton Ave and the east catchbasin outlets north towards the rear lane.

The existing topography of the site area generally falls to the north and stormwater that is not collected by the sewer system on Hamilton Ave. or Wellington St. W. will be directed to the intersection of Wellington St. W. and Parkdale Ave. and flow north on Parkdale Ave.

The estimated pre-development peak flows for the 2, 5, and 100-year events are summarized in ***Table 5,*** below:

Table 5
Summary of Existing Peak Storm Flow Rates

City of Ottawa Design Storm	Estimated Peak Flow Rate (L/s) Area EX1	Estimated Peak Flow Rate (L/s) Area EX2 & EX3
2-year	45.3	21.9
5-year	61.5	29.8
100-year	124.0	63.7

Due to construction impacts on the rear laneway, areas referred to as existing or external are modified in the post development configuration. For post development drainage patters refer to ***SWM-1*** in ***Drawings.***

5.2 Post-development Stormwater Management Target

Stormwater management requirements for the proposed development were reviewed with the City of Ottawa. The City has established the following requirements for the proposed development:

- Meet an allowable release rate based on a Rational Method Coefficient of 0.50, employing the City of Ottawa IDF parameters for a 2-year storm with a time of concentration equal to 10 minutes.
- Attenuate all storms up to and including the City of Ottawa 100-year design event on site.
- The RVCA has confirmed that no additional quality controls, beyond best practices, are required for the proposed development. The RVCA encourages the incorporation of LID measures for the stormwater management plans. Correspondence is located in ***Appendix A***.

Based on the above the allowable release rate for the proposed development is ***45.3 L/s***.

5.3 Proposed Stormwater Management System

The proposed development consists predominantly of rooftop above an underground parking garage. It is proposed that flow from the roof area directed to an internal stormwater cistern.

The allowable release rate for the stormwater generated from the site will need to be restricted to less than ***45.3 L/s*** for the combination of both attenuated and un-attenuated flows. ***Table 6*** summarizes post-development flow rates. Unattenuated area will be compensated for in areas with flow attenuation controls.

Table 6
Stormwater Flow Rate Summary

Control Area	5-Year Release Rate	5-Year Storage	100-Year Release Rate	100-Year Storage
	(L/s)	(m^3)	(L/s)	(m^3)
Unattenuated Areas	7.9	0.0	15.9	0.0
Attenuated Areas	6.8	45.0	13.7	90.0
Total	**14.7**	**45.0**	**29.6**	**90.0**

The combined attenuated and unattenuated flows on site are ***14.7 L/s*** for the 5-year storm and ***29.6 L/s*** for the 100-year storm. The post development 100-year flow is less than the allowable release rate calculated in ***Section 5.2*** and therefore within the target range.

Under existing conditions, a portion of the external drainage area to the south of the site drains towards the site. These flows, ***21.9 L/s*** for the 5-year storm and ***47.0 L/s*** for the 100 year storm, are accommodated in the post development configuration by the addition of a manhole in the laneway that redirects flow to the existing sewer on Hamilton Avenue North. This requires an additional connection to the sewer main but allows for the

accommodation of external flows without further disturbance of those drainage areas or having to accommodate external drainage within the building envelope.

CB1 and CB2 in the rear laneway are to be fitted with Inlet Control Devices (ICDs), the Tempest LMF 100 and Tempest LMF 85, respectively. These ICDs are calculated to match the 100-year storm flow rate of their respective drainage areas. This ensures that the cistern continues to capture and store the 100-year flows for all attenuated areas while allowing any potential overland flow from external drainage areas to continue overland to Parkdale Avenue without impacting the proposed development.

The attenuated flows are to be captured within a stormwater cistern, which is to be pumped with a maximum 5-year release rate of **6.84** ***L/s*** and a maximum 100-year release rate ***13.7 L/s,*** and is proposed to discharge to the existing 525 mm storm sewer on Hamilton Avenue North. It is anticipated that at least ***90 m^3*** of storage will be required on site to attenuate flow to the established release rate; storage calculations are contained within ***Appendix D***. An underground cistern with **112 m^3** of storage, equipped with a pump, will be designed to respect this release rate. Refer to the drawing ***SSP-1*** for a detailed servicing layout. Cistern details will be prepared by Quasar Consulting Group.

5.4 Stormwater Quality Control

Quality controls are not required for the proposed development due to the combined sewer outlet; correspondence with the RVCA is included in ***Appendix A***.

5.5 Stormwater Servicing Conclusions

Post development stormwater runoff will be required to be restricted to the allowable target release rate for storm events up to and including the 100-year storm in accordance with City of Ottawa Standards. The post-development allowable release rate was calculated as ***45.3 L/s*** based on consultation with the City of Ottawa. The attenuated and unattenuated flows for the subject site total ***29.5 L/s*** during the 100-year storm***.*** It is calculated that at least ***90 m^3*** of onsite storage will be required to meet this release rate, the proposed storage of ***112 m^3*** exceeds the required storage volume.

Inlet Control Devices are installed in rear laneway catch basins to ensure attenuated flows are captured under the 100-year storm conditions while overland flow from external drainage areas is uninterrupted.

External drainage is intercepted at the rear laneway and directed west towards Hamilton Avenue North.

Quality controls are not anticipated to be required for the proposed development. Correspondence is located in ***Appendix A***.

The proposed stormwater design conforms to all relevant City Standards and Policies for approval.

6.0 UTILITIES

Gas and Hydro services currently exist within the Hamilton Avenue, Parkdale Avenue, and Wellington Street West right-of-ways.

Utility servicing will be coordinated with the individual utility companies prior to site development.

7.0 EROSION AND SEDIMENT CONTROL

Soil erosion occurs naturally and is a function of soil type, climate and topography. During construction the extent of erosion losses is exaggerated due to the removal of vegetation or surface treatments and the top layer of soil becoming agitated.

Prior to topsoil stripping, earthworks or underground construction, erosion and sediment controls will be implemented and will be maintained throughout construction.

Silt fence must be installed around the perimeter of the site if there is potential for onsite sediments to migrate. Any silt fence installed must be cleaned and maintained throughout construction. Silt fence will remain in place until the risk of sediments leaving site has been mitigated.

Catch basins will have SILTSACKs or an approved equivalent installed under the grate during construction to protect from silt entering the storm sewer system.

Erosion and sediment controls must be in place during construction. The following recommendations to the contractor will be included in contract documents:

- Protect exposed slopes with plastic or synthetic mulches;
- Install silt fence to prevent sediment from leaving the site;
- Provide sediment traps and basins during dewatering;
- Install filter cloth between catch basins and frames;
- Plan construction at proper time to avoid flooding; and

The contractor will, at every rainfall, complete inspections and guarantee proper performance. The inspection is to include:

- Verification that water is not flowing under silt barriers; and
- Clean and change filter cloth at catch basins.

8.0 CONCLUSION AND RECOMMENDATIONS

David Schaeffer Engineering Ltd. (DSEL) has been retained by Welldale Limited Partnership to prepare a Site Servicing and Stormwater Management report in support of the application for a Site Plan Control (SPC) at 1186-1194 Wellington Street West. The preceding report outlines the following:

- Based on boundary conditions provided by the City the existing municipal water infrastructure is capable of providing the contemplated development with water within the City's required pressure range.
- The FUS method for estimating fire flow indicated ***10,000 L/min*** is required for the contemplated development.
- The contemplated development is anticipated to have a peak wet weather flow of ***6.18 L/s***; Based on the sanitary analysis conducted the existing municipal sewer infrastructure has sufficient capacity to support the development.
- Based on consultation with City staff, the contemplated development will be required to attenuate post development flows to an equivalent release rate of ***45.3 L/s*** for all storms up to and including the 100-year storm event. Post development flows, attenuated and unattenuated, total ***29.6 L/s*** during the 100-year storm.
- It is contemplated that stormwater objectives may be met through inlet control devices and a storm water retention internal cistern storage. It is anticipated that ***90 m^3*** of onsite storage will be required to attenuate flow to the established release rate above. ***112 m^3*** of storage has been provided in the underground cistern.
- Quality controls are not anticipated for the subject site. RVCA has been contacted and will confirm these requirements subsequent this application; and
- The development proposes a set of service laterals to service the proposed development. As a result, an Environmental Compliance Application (ECA) is not required.

Prepared by,
David Schaeffer Engineering Ltd.

Per: Laurence Coulson, P.Eng. Review Per: Alexandre Tourigny, P.Eng.

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APPENDIX A

Pre-Consultation

DEVELOPMENT SERVICING STUDY CHECKLIST

20-1188 24/06/2021

4.1 General Content

☐	Executive Summary (for larger reports only).	N/A
☒	Date and revision number of the report.	Report Cover Sheet
☒	Location map and plan showing municipal address, boundary, and layout of proposed development.	Drawings/Figures
☒	Plan showing the site and location of all existing services.	Figure 1
☒	Development statistics, land use, density, adherence to zoning and official plan, and reference to applicable subwatershed and watershed plans that provide context to applicable subwatershed and watershed plans that provide context to which individual developments must adhere.	Section 1.0
☒	Summary of Pre-consultation Meetings with City and other approval agencies.	Section 1.3
☒	Reference and confirm conformance to higher level studies and reports (Master Servicing Studies, Environmental Assessments, Community Design Plans), or in the case where it is not in conformance, the proponent must provide justification and develop a defendable design criteria.	Section 2.1
☒	Statement of objectives and servicing criteria.	Section 1.0
☒	Identification of existing and proposed infrastructure available in the immediate area.	Sections 3.1, 4.1, 5.1
☐	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).	N/A
☐	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.	N/A
☐	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.	N/A
☐	Proposed phasing of the development, if applicable.	N/A
☒	Reference to geotechnical studies and recommendations concerning servicing.	Section 1.4
☐	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	N/A

4.2 Development Servicing Report: Water

☐	Confirm consistency with Master Servicing Study, if available	N/A
☒	Availability of public infrastructure to service proposed development	Section 3.1
☒	Identification of system constraints	Section 3.1
☒	Identify boundary conditions	Section 3.1, 3.2
☒	Confirmation of adequate domestic supply and pressure	Section 3.3

*Extracted from the City of Ottawa-Servicing Study Guidelines for Development Applications

☒	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.	Section 3.2
☐	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.	N/A
☐	Definition of phasing constraints. Hydraulic modeling is required to confirm servicing for all defined phases of the project including the ultimate design	N/A
☐	Address reliability requirements such as appropriate location of shut-off valves	N/A
☐	Check on the necessity of a pressure zone boundary modification	N/A
☒	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	Section 3.2, 3.3
☐	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.	N/A
☐	Description of off-site required feedermains, booster pumping stations, and other water infrastructure that will be ultimately required to service proposed development, including financing, interim facilities, and timing of implementation.	N/A
☒	Confirmation that water demands are calculated based on the City of Ottawa Design Guidelines.	Section 3.2
☐	Provision of a model schematic showing the boundary conditions locations, streets, parcels, and building locations for reference.	N/A

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).	Section 4.2
☐	Confirm consistency with Master Servicing Study and/or justifications for deviations.	N/A
☐	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.	N/A
☒	Description of existing sanitary sewer available for discharge of wastewater from proposed development.	Section 4.1
☒	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)	Section 4.2
☒	Calculations related to dry-weather and wet-weather flow rates from the development in standard MOE sanitary sewer design table (Appendix 'C') format.	Section 4.2, Appendix C
☒	Description of proposed sewer network including sewers, pumping stations, and forcemains.	Section 4.2
☐	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).	N/A

*Extracted from the City of Ottawa-Servicing Study Guidelines for Development Applications

☐	Pumping stations: impacts of proposed development on existing pumping stations or requirements for new pumping station to service development.	N/A
☐	Forcemain capacity in terms of operational redundancy, surge pressure and maximum flow velocity.	N/A
☐	Identification and implementation of the emergency overflow from sanitary pumping stations in relation to the hydraulic grade line to protect against basement flooding.	N/A
☐	Special considerations such as contamination, corrosive environment etc.	N/A

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)	Section 5.1
☒	Analysis of available capacity in existing public infrastructure.	Section 5.1, Appendix D
☒	A drawing showing the subject lands, its surroundings, the receiving watercourse, existing drainage patterns, and proposed drainage pattern.	Drawings/Figures
☒	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.	Section 5.2
☒	Water Quality control objective (basic, normal or enhanced level of protection based on the sensitivities of the receiving watercourse) and storage requirements.	Section 5.2
☒	Description of the stormwater management concept with facility locations and descriptions with references and supporting information	Section 5.3
☐	Set-back from private sewage disposal systems.	N/A
☐	Watercourse and hazard lands setbacks.	N/A
☒	Record of pre-consultation with the Ontario Ministry of Environment and the Conservation Authority that has jurisdiction on the affected watershed.	Appendix A
☐	Confirm consistency with sub-watershed and Master Servicing Study, if applicable study exists.	N/A
☒	Storage requirements (complete with calculations) and conveyance capacity for minor events (1:5 year return period) and major events (1:100 year return period).	Section 5.3
☐	Identification of watercourses within the proposed development and how watercourses will be protected, or, if necessary, altered by the proposed development with applicable approvals.	N/A
☒	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.	Section 5.1, 5.3
☐	Any proposed diversion of drainage catchment areas from one outlet to another.	N/A
☐	Proposed minor and major systems including locations and sizes of stormwater trunk sewers, and stormwater management facilities.	N/A
☐	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.	N/A
☐	Identification of potential impacts to receiving watercourses	N/A
☐	Identification of municipal drains and related approval requirements.	N/A

*Extracted from the City of Ottawa-Servicing Study Guidelines for Development Applications

☒	Descriptions of how the conveyance and storage capacity will be achieved for the development.	Section 5.3
☐	100 year flood levels and major flow routing to protect proposed development from flooding for establishing minimum building elevations (MBE) and overall grading.	N/A
☐	Inclusion of hydraulic analysis including hydraulic grade line elevations.	N/A
☐	Description of approach to erosion and sediment control during construction for the protection of receiving watercourse or drainage corridors.	N/A
☐	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.	N/A
☐	Identification of fill constraints related to floodplain and geotechnical investigation.	N/A

4.5 Approval and Permit Requirements: Checklist

☒	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 ct. 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.	Section 1.2
☐	Application for Certificate of Approval (CofA) under the Ontario Water Resources Act.	N/A
☐	Changes to Municipal Drains.	N/A
☐	Other permits (National Capital Commission, Parks Canada, Public Works and Government Services Canada, Ministry of Transportation etc.)	N/A

4.6 Conclusion Checklist

☒	Clearly stated conclusions and recommendations	Section 7.0
☐	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	

*Extracted from the City of Ottawa-Servicing Study Guidelines for Development Applications

Pre-application Consultation Meeting Minutes
Formal Pre-consultation
1186, 1188, and 1194 Wellington Street West
PC2020-0176
Wednesday July 29, 2020, 11:00am to 12:30pm
Teams Videoconference

ATTENDEES		
City of Ottawa		
Name	**Role**	**Email**
Ann O'Connor	Planner, Central Development Review, PIED	Ann.oconnor@ottawa.ca
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Community Association Representative		
Name	**Community Association**	**Email**
Jay Baltz	Hintonburg Community Association	Jbalz.hca@gmail.com
Applicant Team		
Name	**Role**	**Email**
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Simon Ko	Architecture, Dialog	sko@dialogdesign.ca

Introductions and Acknowledgements

- Round table introductions

- Acknowledgement that Jay Baltz from the Hintonburg Community Association are in attendance and has signed an NDA.

Overview of Proposal (applicant team)

Kevin Harper

- Provided overview of existing site
- Area of the site is approximately 0.6 of an acre. It is a highly visible "gateway" site.
- Proposal is for a 12-storey mixed-use building with integrated mechanical with residential uses around it. Proposal has approximately 150,000 square feet of GFA and has approximately 5.76 FSI. All parking to be located underground in a 3 ½ storey parking lot with approximately 174 spaces for 228 residential dwelling units.
- Currently Minto is in a due-diligence phase and do not own the property yet. They are proceeding with ESAs, Geotech, Topo, Survey etc. to have this material if they do acquire the property. They have not yet determined if it will be a condominium or a rental proposal but currently a rental proposal looks more desirable.

Paul Black

- Provided overview of planning context
- Designated Traditional Mainstreet in the Official Plan
- Wellington Street is the main street and will be treated as the frontage.
- The site is planned for a mid-rise development in the general OP
- The site is approximately 660m from Tunney's Pasture Transit Station
- The CDP for Wellington W includes a 2-3 storey base along TM. It also generally permits 6-storeys but does recognize potential for up to 9-storeys at this corner based on the provision of public benefits.
- The minimum height requirement is 4-storeys
- The Secondary Plan puts the CDP into statutory verbiage and speaks to key aspects of this node.
- The site is dual zoned as TM11 and an exception. The zoning encourages buildings to be close to the street.
- At this time the proposal is for an OPA and ZBLA (for a single zone with a potential exception) with the potential for a SPC application down the road.

Simon Ko

- Provided overview of architectural context
- The laneway at the back of the site to be expanded (widened to be 6m in width) and used to access the underground parking and loading. It is intended to be two-way through the block.

- Massing of 12-storeys
    - Along Wellington there are two stepbacks in massing: a 1.5m stepback at the fifth floor and a 4.5m stepback (from the property line) at the 9th floor.
    - There is a lighter expression at the top and an effort to "de-materialize" the corners in order to create a more visible retail component at the corner.
    - It is U-shaped in that there is an area that faces the rear lane that is setback/stepped in to create outdoor rooftop amenity.

Preliminary Comments from the City

Planning Comments (Ann O'Connor)

- Based on the current proposal and policy context, the following applications and processes will apply:
    - Official Plan Amendment
    - Zoning By-law Amendment
    - Site Plan Control, New, Complex, Non-Rural application.
    - Section 37 may apply. Provide calculations alongside submission.
    - Review at Urban Design Review Panel (UDRP)

- Please use the following policy context to guide the design as it progresses and refer to them in your Planning Rationale.

    - Official Plan designations:
        - Schedule B Urban Policy Plan designates the subject property "Traditional Mainstreet"
        - Schedule C Primary Urban Cycling Network designates Wellington a "Spine Route" (Parkdale nothing)
        - Schedule D Rapid Transit and Transit Priority Network designates Wellington St W "Transit Priority Corridor Isolated Measures" (Parkdale nothing)
        - Schedule E Urban Road Network designates both Wellington St W and Parkdale as "Arterial – Existing"

    - As per Section 3.6.3 – Mainstreets
        - Policy 1 identifies that TMs are planned as "compact, mixed-use, pedestrian-oriented streets that provide for access by foot, cycle, transit and automobile. The proposal is for a compact mixed-use development, which is supported by this policy. Applicant team is encouraged to incorporate building features that further incorporate the aims of this pedestrian-oriented policy.

        - Policy 5 identifies that a broad range of uses is permitted on TM. The proposed ground floor commercial with residential is supported by this policy.

- Policy 7 identifies that the development should adhere to S. 2.5.6 and 4.11 of the OP. The proposal will need further work to identify conformity with this policy.

- Policy 9 identifies that TM surface parking will not be permitted between the building and the street. The proposed removal of an existing surface parking lot and introduction of an underground parking garage is supported by this policy.

- Policy 11 identifies that the OP supports mid-rise building heights on Traditional Mainstreets, but secondary plans may identify circumstances where different building heights may be permitted. There is no policy currently within the parent OP that supports a high-rise development.

- As per Annex 1 of the OP, the Right-Of-Way requirements on Wellington Street West is 20 metres. There is no ROW requirement along Parkdale Avenue or Hamilton Ave N. Corner site triangles will be required at both intersections (Wellington & Parkdale and Wellington & Hamilton).

- The site is subject to the Wellington Street West Secondary Plan and Community Design Plan. In the Secondary Plan, the site is identified as follows:
  - Schedule A – Land Use designates the site “Traditional Mainstreet” (see policies 11.3.1 – General Mainstreet Policies)

  - Schedule B – Specific Policy Areas designates the site “Parkdale Park” (see policies 11.3.3 – Parkdale Park Area Policies)

  - An Official Plan Amendment would be required for the current 12-storey concept, as neither the parent OP nor the SP identifies where high-rises are permitted. A high-rise building is not considered as a permitted use in this Secondary Plan nor the parent OP. Policy direction allows for a maximum 9-storey built form, under specific circumstances.

- The site is dual zoned:
  - TM11[1815] (Traditional Mainstreet, Subzone 11, Exception 1815) for 1186 Wellington St W

  - TM11 (Traditional Mainstreet, Subzone 11) for 1188 and 1194 Wellington St W.

- The current zones have a maximum height limit of 20 metres (roughly 6 storeys) and the proposal likely has other areas of non-conformity; therefore, a Zoning By-law Amendment application will be required.

- Heritage
  - See heritage section notes for additional guidance. Consider incorporating elements of the Apostolic Church per their guidance.

- The following design guidelines apply:
  - Urban Design Guidelines for Development along Traditional Mainstreets
  - Urban Design Guidelines for High-rise Buildings
  - Transit-Oriented Development Guidelines

- Comments:
  - Planning Services is supportive of infilling this site. Replacing the surface parking with a building format that defines the street edge with active frontages is positive and supported. However, the current high-rise form is not supported by policy.

  - To pursue a 12-storey concept will require significant work from the applicant to do a larger area-study reflecting why, how, and where such high-rise development is appropriate within the SP area. In its current form, the proposal does not have support from Planning.

  - Certain aspects of the project require further review and work:
    - massage the overall massing
    - reduce the mass/height of the podium to be more pedestrian-friendly and relate positively to the Isabella streetscape
    - keep the relationship to the established Glebe neighbourhood top of mind as the massing evolves
    - give serious consideration to future redevelopment potential on abutting lots and separation distances required as per design guidelines
    - more broadly, provide visuals and rationale for how the proposal fits into the area
    - As per Sch I in the OP, Hwy 417 is designated a Scenic Entry Route. The high-visibility this development will have will necessitate a high-level of design work.

Infrastructure Comments (Shawn Wessel)

- Infrastructure:
  - Wellington St. W.:

- A 305 mm dia. PVC Watermain (c. 2008) is available.

- A 250 mm dia. PVC Sanitary Sewer (c. 2008) is available, which drains to Cave Creek Trunk/Collector and conveys effluent to the Interceptor Sewer.

- A 375 mm dia. PVC Storm Sewer (c. 1997) is available, which drains to Holland Avenue, West Transit Storm and Outlets to the Ottawa River at Onigam Street.

- Parkdale Ave.:
  - A 305 mm dia. DI Watermain (c. 1989) is available.

  - A 600 mm dia. Conc. Sanitary Sewer (c. 1914) is available, which drains to Cave Creek Trunk/Collector and conveys effluent to the Interceptor Sewer.

  - A 600 mm dia. Conc. Storm Sewer (c. 1987) is available, which drains to Scott Street, East Hintonburg Storm, West Transit Storm and Outlets to the Ottawa River at Onigam Street.

- The following apply to this site and any development within a separated sewer area:
  - This site is upstream of a flood prone area on the West Nepean Collector Sewer

  - Total allowable release rate will be 2-year pre-development rate due to being within a partially separated sewer area.

  - Coefficient (C) of runoff will need to be determined as per existing conditions but in no case more than 0.5

  - TC = 20 minutes or can be calculated

  - TC should be not be less than 10 minutes, since IDF curves become unrealistic at less than 10 min.

  - Any storm events greater than 5 year, up to 100 year, and including 100-year storm event must be detained on site.

  - Two separate sewer laterals (one for sanitary and other for storm) will be required.

- Please note:

- Foundation drains are to be independently connected to sewermain (separated or combined) unless being pumped with appropriate back up power, sufficient sized pump and back flow prevention.

- Roof drains are to be connected downstream of any incorporated ICD within the SWM system.

- Provide Roof plan showing roof drain and scupper locations, flow rates, drain type and weir opening if controlled. Provide Manufacturer Specifications on drains and also provide 5- and 100-year ponding limits on plan.

- Boundary Conditions will be provided at request of consultant after providing Average Daily Demands, Peak Hour Demands & Max Day + Fire Flow Demands

- If window wells are proposed, they are to be indirectly connected to the footing drains. A detail of window well with indirect connection is required, as is a note at window well location speaking to indirect connection.

- Note:
  - If applicable, existing buildings require a CCTV inspection and report to ensure existing services to be re-used are in good working order and meet current minimum size requirements. Located services to be placed on site servicing plans.

CCTV Scan Guideline.pdf

- Other:
  - Environmental Noise Study is required due to Wellington St. W., within 100m proximity of Parkdale Avenue and within 500 m of Hwy #417.

  - Stationary Noise Study – consultant to speak to this in their report as per City NCG and NPC 300 Guidelines. May be required after Mechanical Design completed and prior to building permit issuance.

  - When greater than 9 metres in height, a Shadow Study required for all buildings/dwellings.

  - When greater than 9 metres in height Wind Study for all buildings/dwellings.

  - No Capital Projects listed in the area on GeoOttawa or Envista.

        - Water Supply Redundancy – Fire Flow:
            - Applicant to ensure that a second service with an inline valve chamber be provided where the average daily demand exceeds 50 m^3 / day (0.5787 l/s per day)
            - FUS Fire Flow Criteria to be used unless a low-rise building, where OBC requirements may be applicable.

- Source Protection Policy Screening (SPPS):
    - The address lies within the Mississippi-Rideau Source Protection Region and is subject to the policies of the Mississippi-Rideau Source Protection Plan.

    - The area is <u>not</u> located within a Surface Water Intake Protection Zone (IPZ) where significant threat policies apply.

    - The area is <u>not</u> located within a Wellhead Protection Area (WHPA).

    - The area is <u>not</u> located within a Significant Groundwater Recharge Area.

    - The area <u>is identified as a Highly Vulnerable Aquifer</u>. There are no legally-binding source protection policies under the Mississippi-Rideau Source Protection Plan for activities within Highly Vulnerable Aquifers.

    - In terms of the Planning Act application, please note that the address is not located in an area where it would be considered a significant threat to drinking water sources and there are no legally-binding source protection policies.

- Applicant to contact Rideau Valley Conservation Authority (RVCA) for possible restrictions due to quality control. Provide correspondence in Report.

- Where servicing involves three or more service trenches, either a full road width or full lane width 40 mm asphalt overlay will be required, as per amended Road Activity By-Law 2003-445 and City Standard Detail Drawing R10. The amount of overlay will depend on condition of roadway and width of roadway(s).

- Pre-Construction (Piling/Hoe Ramming or close proximity to City Assets) and/or Pre-Blasting (if applicable) Survey required for any buildings/dwellings in proximity of 75m of site and circulation of notice of vibration/noise to residents within 150 m of site. Conditions for Pre-Construction/ Pre-Blast Survey & Use of Explosives will be applied to agreements. Refer to City's Standard S.P. No. F-1201 entitled Use of Explosives, as amended.

- Where underground storage (UG) and surface ponding are being considered:

- Show all ponding for 5- and 100-year events

- Above and below ground storage is permitted although uses ½ Peak Flow Rate or is modeled. Please confirm that this has been accounted for and/or revise.

- Rationale:

  The Modified Rational Method for storage computation in the Sewer Design Guidelines was originally intended to be used for above ground storage (i.e. parking lot) where the change in head over the orifice varied from 1.5 m to 1.2 m (assuming a 1.2 m deep CB and a max ponding depth of 0.3 m). This change in head was small and hence the release rate fluctuated little, therefore there was no need to use an average release rate.

  When underground storage is used, the release rate fluctuates from a maximum peak flow based on maximum head down to a release rate of zero. This difference is large and has a significant impact on storage requirements. We therefore require that an average release rate be used to estimate the required volume. Alternatively, the consultant may choose to use a submersible pump in the design to ensure a constant release rate.

  In the event that there is a disagreement from the designer regarding the required storage, The City will require that the designer demonstrate their rationale utilizing dynamic modelling, that will then be reviewed by City modellers in the Water Resources Group.

  Note that the above will added to upcoming revised Sewer Design Guidelines to account for underground storage, which is now widely used.

- Further to above, what will be the actual underground storage provided during the major (100 year) and minor (2 year) storm events?

- Please provide information on UG storage pipe. Provide required cover over pipe and details, chart of storage values, capacity etc. How will this pipe be cleaned of sediment and debris?

- Note - There must be at least 15cm of vertical clearance between the spill elevation and the ground elevation at the building envelope that is in proximity of the flow route or ponding area. The exception in this case would be at reverse sloped loading dock locations. At these locations, a minimum of 15cm of vertical clearance must be provided below loading dock openings. Ensure to provide discussion in report and ensure grading plan matches if applicable.

- Provide information on type of underground storage system including product name and model, number of chambers, chamber configuration, confirm invert of chamber system, top of chamber system, required cover over system and details, interior bottom slope (for self-cleansing), chart of storage values, length, width and height, capacity, entry ports (maintenance) etc.

- Provide a cross section of underground chamber system showing invert and obvert/top, major and minor HWLs, top of ground, system volume provided during major and minor events. UG storage to provide actual 2- and 100-year event storage requirements.

- In regard to all proposed UG storage, ground water levels (and in particular HGW levels) will need to be reviewed to ensure that the proposed system does not become surcharged and thereby ineffective.

- Modeling can be provided to ensure capacity for both storm and sanitary sewers for the proposed development by City's Water Distribution Dept. – Modeling Group, through PM and upon request.

- For proposed depressed driveways or developments with private lanes, parking areas or with entrances etc. lower than roadway…


S18.pdf


S18.1.pdf

- Rear yard on grade parking to be permeable pavement. Refer to City Standard Detail Drawings SC26 (maintenance/temp parking areas), SC27 or permeable asphalt materials. No gravel or stone dust parking areas permitted.

- Note:
  - "Provided Info to applicant":
    - Please be advised that it is the responsibility of the applicant and their representatives/consultants to verify information provided by the City of Ottawa.
    - Please contact City View and Release Info Centre at Ext. 44455

- Environmental Source Information:
  - Due to more sensitive use, a Record of Site Condition (RSC) is required. Ensure Phase I, and if applicable, Phase II ESA's speak to required RSC.

  - Please also note that in the event soil and/or groundwater contamination is identified on this site and the proposal is for a more sensitive land use, the MECP will require approximately 1-1.5 years to review the RSC.

- PIED will apply appropriate conditions, based on Environmental Protection Act (Section 168.3.1 (1)) and O.Reg. 153/04 (Parts IV and V) regarding requirements for RSC prior to building permit issuance. Dependent on the levels/types of contamination, timelines for building permit issuance may be longer than expected and we recommend applicant speak to Building Code Services, at the earliest convenience, so as to discuss these timelines in more detail, if deemed applicable.

- City of Ottawa - Historical Land Use Inventory (HLUI) – Required
  - Rationale:
    The HLUI database is currently undergoing an update. The updated HLUI will include additional sources beyond those included in the current database, making the inclusion of this record search even more important.

    Although a municipal historic land use database is not specifically listed as required environmental record in O. Reg 153/04, Schedule D, Part II states the following:

- The following are the specific objectives of a records review:
  - To obtain and review records that relate to the Phase I (One) property and to the current and past uses of and activities at or affecting the Phase I (One) property in order to determine if an area of potential environmental concern exists and to interpret any area of potential environmental concern.

  - To obtain and review records that relate to properties in the Phase I (One) study area other than the Phase I (One) property, in order to determine if an area of potential environmental concern exists and to interpret any area of potential environmental concern.

  - It is therefore reasonable to request that the HLUI search be included in the Phase I ESA to meet the above objectives.

  - Please submit.

- In addition:
  - All existing reports and plans will need to be revised if older than 2 years and must reflect current City Standards, Guidelines, By-laws and Policies.

  - Please refer to City of Ottawa website portal for “Guide to preparing Studies and Plans” at https://ottawa.ca/en/city-hall/planning-and-development/information-developers/development-application-review-process/development-application-submission/guide-preparing-studies-and-plans.

- Please ensure you are using the current guidelines, bylaws and standards including materials of construction, disinfection and all relevant reference to OPSS/D and AWWA guidelines - all current and as amended, such as:

- City of Ottawa Sewer Design Guidelines (CoOSDG) complete with ISTDB 2012-01, 2014-01, 2016-01, 2018-01 & 2019-02 technical bulletin updates as well as current Sewer, Landscape & Road Standard Detail Drawings as well as Material Specifications (MS Docs).

- Sewer Connection (2003-513) & Sewer Use (2003-514) By-Laws.

- City of Ottawa Water Distribution Design Guidelines (CoOWDDG) complete with ISTDB 2010-02, 2014-02 & 2018-02 technical bulletin updates as well as current Watermain/ Services Material Specifications (MS Docs) as well as Water and Road Standard Detail Drawings.

- FUS Fire Flow standards

- Water (2018-167) By-Law

- Ensure to include version date and add "(as amended)" when referencing all standards, detail drwaings, by-Laws and guidelines.

- Fourth (4th) Review Charge:
  - Please be advised that additional charges for each review, after the 3rd review, will be applicable to each file. There will be no exceptions.

- Water Resources Department
  - Storm Sewers
    - This is a ~1:2 year partially separated system. The sewer is relatively shallow and surcharges in events greater than 1:2 year.

    - Depending on the nature of the development (presence of below ground spaces vulnerable to flooding) backflow prevention will be required (e.g. storm backwater valve, sump pump to storm lateral).

    - Stormwater management is required to contain flows onsite and release to the minor system (1:2 year, C=0.5)

  - Sanitary sewers
    - Connection to either the Wellington or the Parkdale sewers appears to be okay
    - Sanitary backwater valves to prevent backup from surcharging sanitary sewers is recommended

  - Major System

- The attached figure shows what we know about the major system flow paths and low points under existing conditions

- The site design should have regard for the major system behavior so as not to create / increase flow risk to the subject property or the adjacent properties

Transportation Project Manager Comments (Neeti Paudel)

- Follow Traffic Impact Assessment Guidelines
  - Traffic Impact Assessment will be required.
  - Start this process asap.
  - Applicant advised that their application will not be deemed complete until the submission of the step 1-4, including the functional draft RMA package (if applicable) and/or monitoring report (if applicable).
  - Request base mapping asap if RMA is required. Contact Engineering Services (https://ottawa.ca/en/city-hall/planning-and-development/engineering-services)

- ROW protection on Wellington Street West between Island Park and Terminus at Somerset is 20m even.

- The proposed lay-by on Hamilton Avenue or change to curbside regulations may not be accepted.

- Further analysis in the TIA is required to determine any restrictions to the Parkdale access. Left turns from the laneway to Parkdale may be restricted. Provide recommendations in the TIA for review.

- Ensure that the accessibility requirements are implemented (checklist attached).

- Site triangles at the following locations on the final plan will be required:
  - 3 metre x 3 metres minimum (SE corner of Wellington and Hamilton)

- On site plan:
  - Show all details of the roads abutting the site up to and including the opposite curb; include such items as pavement markings, accesses and/or sidewalks.
  - Turning templates will be required for all accesses showing the largest vehicle to access the site; required for internal movements and at all access (entering and exiting and going in both directions).
  - Show all curb radii measurements; ensure that all curb radii are reduced as much as possible
  - Show lane/aisle widths.
  - Sidewalk is to be continuous across access as per City Specification 7.1.

- The laneway abutting the rear property line is City owned and it is identified as a class B Lane (lanes without municipal maintenance) and has the legal status of a public right of way.

Heritage Comments (MacKenzie Kimm)

- The property at 1196 Wellington Street West, the Apostolic Church, is currently listed on the City's Heritage Register for having some cultural heritage value or interest.

- As noted by the Community Association at the meeting, this property was constructed as movie theatre known as the Elmdale Theatre. It opened on September 9, 1947 and was constructed by architects Kaplan and Sprachman (see article below).

- Given that the property has been identified as having some cultural heritage value, heritage staff would encourage its retention/reuse/incorporation into the proposal.

- The marquee is an interesting feature that could be explored for incorporation. Additionally the flat-roofed form of the building may lend itself as a base element.

- A Cultural Heritage Evaluation Report should be submitted, should the applicant move forward with the proposal. Heritage staff would recommend this be completed early in the approval process, as it may help to inform the design.

- Should the applicant pursue the project, heritage staff can provide additional details for the CHER, but essentially it should evaluate the cultural heritage value of the existing property and make recommendations regarding the potential for designation under Part IV of the Ontario Heritage Act, conservation or retention options.

- If the applicant intends to demolish the building, they must provide the City with 60 days notice of that intention. The Form for Buildings Listed on the Register must be submitted and staff would require the CHER information as part of that process.

The announcement you have been waiting for—

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★ ★ ★ ★ ★ THEATRE

Corner Hamilton Ave. and Wellington St. Phone 8-4498

Opening Officially at 1 p.m., Tuesday, Sept. 9

In dedicating the ELMDALE to the public, it is our sincere wish that this, your theatre, will provide you, your family and friends with many happy entertaining hours.

We could fill pages with glowing descriptions of the many innovations in:

★ Ultra Modern Projection and Sound
★ Healthful Cool Air Conditioning
★ Spacious and Comfortable Seating
★ Appealing Decoration
★ Attractive Lighting
★ Luxurious Carpeting and Furnishings
★ Cry Room and Private Party Room
★ Lounge and Ladies' Powder Room
★ Candy and Refreshment Bar

. . . all these features and many more serve to make the ELMDALE truly the most modern, comfortable and best equipped theatre in Ottawa.

TUESDAY — 2 PROVEN HITS and Wednesday

100 to 1 it's Cary's greatest picture...and a wonderful thrill for you!

CARY GRANT in — Mr. Lucky with LARAINE DAY

BOGART

Ernest Hemingway's "TO HAVE AND HAVE NOT"

WALTER BRENNAN · LAUREN BACALL · DOLORES MORAN

POLICY Continuous Daily from 1 p.m.

ADMISSION PRICES Matinees— 1 to 4 Children, 15c Students, 20c Adults, 30c
Evenings— Children, 15c Students, 25c Adults, 35c

On Monday evening, September 8th, the ELMDALE and its company servers are under the auspices of the West Ottawa Business and Professional Men's Club, with Stage Show, and on the Screen a "SPECIAL PREVIEW". COURTESY L. LACHUK, BANK ORGANIZATION. The entire proceeds will be donated towards furnishing a room in the new wing of a West Ottawa hospital.

Architects of the ELMDALE THEATRE
Kaplan and Sprachman
305 Dundas St., W.
Toronto 2-B, Ont.

Simplex Sound and Projection Equipment
supplied by
General Theatre Supply Co., Limited
Montreal • Toronto • Winnipeg • Vancouver

Gerard and Gerard
Plastering Contractor
18 Rideau St. 2-9872

Compliments
Twin City Dunbrik
89 McArthur Rd. Eastview

Best Wishes to the Elmdale Theatre
Ottawa Moving Picture Operators' Union
Local 101, I.A.T.S.E.

DeSPIRIT MOSAIC & MARBLE CO.
Marble, Mosaic, Terrazzo, Tile Glass
18 Preston Ave. 2-9820

Harry Koffman
SIGNS
206 Bank St. 6-1064

Upholstering Done at Elmdale Theatre by the
Rideau Upholstering Co.
424 Rideau St. 6-1776

Best Wishes
Beechwood Machinery Ltd.
10 Beechwood Ave. 5-5217

DRAPERIES, CURTAINS and VENETIAN BLINDS
FOR THE NEW
ELMDALE THEATRE
Supplied and Installed by
A. J. PREIMAN
Home Furnishing Department

Compliments of
J. R. Douglas Ltd.
262 Slater St. 2-1536
Supplied Fireproof Doors, Roof, Dust Work, Shutters and Grills in the Elmdale Theatre

---

Harry Hayley
Cinder Block and Cement Products
Hurdman's Road 2-7769

Neon Marquee and Neon Lighting by
Rainbow Neon Signs
Rudy Johnson, Prop.
206 Murray St. 2-6858

Congratulations and Best Wishes
R. and A. Cohen
Fine Furniture and Appliances
Cor. Bank and Laurier Ave.

Compliments of
George W. Ewan

Congratulations
Ottawa Iron Works Ltd.
Ornamental Iron — Steel Stairs — Fire Escapes
96 Nelson St. 2-7240

PLUMBING AND HEATING
Installed by
UNITED PLUMBING AND HEATING SERVICE
[illegible] Clarence St. Phone 2-[illegible]

Hardy Electric
Electrical Contractors
Appliances — Fixtures
1302 Wellington St. 8-8832

Congratulations and Best Wishes to ELMDALE THEATRE
Air Conditioning Designed and Installed by
LIBBY-LONG-ABOUD ENGINEERING, LTD.
627 Craig St. West, Montreal.

Fess Oil Burner in the Deluxe Elmdale Theatre
Sold, Installed, serviced and fueled by
Parfield Oils Ltd.
Easterlow, Ont. 5-6852

Best Wishes to the Elmdale Theatre
F. A. McLean & Son
WATER WELL DRILLERS
[illegible] James St. 5-[illegible]

The Ottawa Journal, September 8, 1947

Urban Design Comments (Randolph Wang)

- Urban design appreciated the opportunity to participate in the very early stage of the process and some preliminary thoughts presented by the applicant and the architects, in particular, the mix of uses and the incorporation of building step backs. However,

- The proposed massing looks overwhelming for its context despite the incorporation of the step backs at the 5th and the 10th floors.

- The projected balconies somewhat cancel the potential benefits of the step backs.

- There appears to be a lack of contextual response to different conditions of the streets surrounding the site, for example, Wellington as a mainstreet, Parkdalke as an major entry route with heavy traffic, and Hamilton as a residential street.

- There is a lack of demonstration of built form relationship with the neighbouring properties, and the transition to the low-rise residential area.

- The public realm at the corners of Wellington and Parkdale, as well as Wellington and Hamilton, appears to be crowded.

- The proposal represents a significant departure from the Community Design Plan and the Secondary Plan, which was developed through a very extensive process. The current policies support mid-rise buildings with a maximum height of 6 storeys. The current policies also allow for the development of a gateway feature at the intersection of Wellington and Parkdale up to 9 storeys subject to certain conditions. The proposed 12-storey massing is a high-rise. While the attempt to explore an alternative direction is absolutely legitimate and the process to do it (the OPA) is correct, the urban design analysis to support the proposed OPA must be thorough, inclusive, extensive as highlighted in the attached Terms of the Design Brief.

    - The urban design analysis must go beyond the site and its immediate surroundings. Depending on the proposed OPA, it may have to include the entire West Wellington Secondary Plan area. As a minimum, it will have to include the entire Parkdale Park section identified in the Secondary Plan.

    - The urban design analysis should not only discuss built form and public realm options for the site itself but also for the broader study area. The Secondary Plan currently does not have policies for high-rise buildings because it does not support high-rise development. When exploring possibilities of developing a high-rise building in the area, questions with respect to what might be the appropriate form for a high-rise building in this area must also be discussed. For example, is a bar building with large floor plate appropriate?

    - The urban design analysis must also include a thorough study of the public realm. For example, the Secondary Plan envisions an intimate public realm in the context of mid-rise buildings. The urban design

analysis must examine the scale and size of public realm in the context of the proposed high-rise.

- It is important to take note that the Secondary Plan sets limit for the building base at 2-3 storeys. The intent of this limit is to allow for a new building to respond to the low-rise buildings currently exist along Wellington Street. New buildings completed in recent years along Wellington have been following this direction.

- Please explore what does it mean to be a landmark building at this location.

- Please explore how some aspects of the heritage building at Wellington and Hamilton may inspire and may be incorporated into the design of the new building.

- Please be mindful of the hydro lines along Wellington Street and their impacts on the new development.

- Please be mindful of the development potential of the church property south of the public lane.

- A shadow study and a preliminary wind study are required.

- The subject property is within a Design Priority Area. A visit to the UDRP for formal review is required.

Forestry Comments (Mark Richardson*)
**Did not attend meeting but provided the following comments:*

- A Tree Conservation Report (TCR) must be supplied for review along with the suite of other plans/reports required by the City; an approved TCR is a requirement of Site Plan or Plan of Subdivision approval.

- Any removal of privately-owned trees 10cm or larger in diameter requires a tree permit issued under the Urban Tree Conservation Bylaw; the permit is based on the approved TCR

- Any removal of City-owned trees will require the permission of Forestry Services who will also review the submitted TCR – please identify all city-owned trees

- The TCR must list all trees on site by species, diameter and health condition

- The TCR must list all trees on adjacent sites if they have a critical root zone that extends onto the development site

- If trees are to be removed, the TCR must clearly show where they are, and document the reason they cannot be retained

- The City encourages the retention of healthy trees; if possible, please seek opportunities for retention of trees that will contribute to the design/function of the site.

- Please ensure newly planted trees have an adequate soil volume for their size at maturity. Here are the recommended soil volumes:

Tree Type/Size	Single Tree Soil Volume (m3)	Multiple Tree Soil Volume (m3/tree)
Ornamental	15	9
Columnar	15	9
Small	20	12
Medium	25	15
Large	30	18
Conifer	25	15

- For more information on the process or help with tree retention options, contact Mark Richardson mark.richardson@ottawa.ca

Environmental Planner Comments (Sami Rehman*)
**Did not attend meeting but provided the following comments:*

- I've reviewed the subject property and have no environmental concerns.

- I encourage the proponent to seek opportunities to incorporate locally appropriate native vegetation (trees, shrubs and plants) to contribute to the urban tree canopy. These can also be used to help reduce the urban heat island effect and increase the proposed development's energy efficiency (OP section 4.9, Energy Conservation Through Design).

Hintonburg Community Association Representative Comments (Jay Baltz)

- Height
    - The secondary plan for all of West Wellington specifies 6 storey maximum with possibility of 9 storeys at specific sites (including corner lot at Wellington and Parkdale, but not the other lots to the west). See 11.3.1.(2) and 11.3.3 (2) in WW secondary plan. There is no clear justification for 12 storeys.

- For Traditional Mainstreet designations in the Official Plan (3.6.3 (11)) it states that “This Plan supports mid-rise building heights on Traditional Mainstreets, but secondary plans may identify circumstances where different building heights may be permitted.” The West Wellington secondary plan does not identify any locations where heights could exceed 9 storeys, and generally mandates 6 storeys (the one exception is a density transfer at the site of Bethany Hope Centre, a part IV designated heritage building, where 13 storeys was permitted to the rear on the very deep lot, not neat the TM frontage).

- There does not seem to be a justification at this specific site for a high-rise, which would be different from what is permitted in TMs in general and the rest of this TM.

- Sidewalks and plazas
  - The secondary plan specifically mandates that the corners of Parkdale and Wellington must have “pedestrian-oriented, publicly accessible spaces to animate, attract and retain people. Small plazas, wider sidewalks, and/or patios shall be incorporated into the site design of new proposals” (11.3.3 (5)). The WWCDP itself states “A3b. New developments at all corners of the Parkdale-Wellington and Holland-Wellington intersections shall set back ground-level facades of buildings from the mainstreet property line to provide more public or quasi-public space at these busy corners.” This proposal shows zero setback on Wellington and only 1.5 m on Parkdale. While there may be small open areas in the sight triangles at the corner, it is not clear that this policy direction has been satisfied. More animation at the corner and along Wellington is needed.

- Architecture/visual features
  - The secondary plan mandates that “Architectural and other visual features shall be introduced in new developments that mark arrival at the Parkdale and Holland Avenue gateways to the Wellington Street West community.” (11.3.3 (6)). While this is a massing concept, the units are already laid out on the plans for each floor, which would seem to preclude a design other than a slab, which is not a desirable built form at a gateway.

  - In addition, continuing the 12-storey height for an entire block is not compatible with a gateway design specifically marking the corner of Parkdale and Wellington.

- Articulation
    - The WW Secondary plan stipulates that “proponents shall demonstrate how the key elements of scale and detail from the traditional one (1) to three (3) storey buildings and the narrow lot sizes of the Wellington West corridor have been incorporated into the building design” (11.3.1 (4). This proposal is a flat façade that extends an entire block (in the concept design, even where the small setback occurs at 4 storeys, the balconies still project to the lot line and could read as a straight façade up to the 11th storey). Furthermore, it should be broken up to match the rhythm of the main street, which is predominantly narrow stoefronts.

- Base and tower
    - Flat facades up to 9 storeys would overwhelm the street. In the concept plan, there is minimal setback at 4 storeys (1.5m). The Secondary plan requires that “New buildings over four (4) storeys within the Traditional Mainstreet and Mixed-Use Centre areas shall incorporate architectural articulation and details to form a two (2) to three (3) storey base.” This proposal fails to provide the setback to create a substantial base at 2-3 storey. The secondary plan mandates this (11.3.1 (3). Furthermore, a high-rise, as proposed, would have to follow the high-rise policies and be of a podium and base design, rather than a slab design.

- Traffic
    - There will be traffic issues entering of exiting on Parkdale, but this is true of any development on that street. However, there appear to be plans to direct traffic onto Hamilton, which has no signalized intersections and will not accommodate increased traffic. This will have to be addressed in a traffic study. We would like to see traffic exiting onto Hamilton be directed only towards Wellington.

- Church building
    - As was raised in the preconsultation, it would be a positive feature to incorporate the church marquee in a new development. The building is the former Elmdale Theatre, which was built in 1947 (closed as theatre in 1994). Photos can be found here: http://cinematreasures.org/theaters/25794. Alain Miguelez would also no doubt be a source of information (https://www.penumbrapress.com/book.php?id=250).

- Conclusion
    - A building at this site should:
        - be 9 storeys at the corner and 6 storeys towards Hamilton

- provide quasi-public space (plaza, patio etc.) and wider sidewalks at the corner to enhance the pedestrian realm and safety
- exhibit architectural excellence to form a gateway; a slab is not desirable
- be articulated particularly at grade to be compatible with the pre-war rhythm of the traditional mainstreet
- Have a clear base at 2-3 storeys and a substantial setback above that to be compatible with the heights on the existing mainstreet
- provide a plan to reduce the impact of traffic to and from Hamilton
- preserve and incorporate the original façade of the Elmdale theatre.

Next Steps

- Refine the proposal to address issues raised through the pre-consultation.
- Staff are happy to set up another meeting to discuss an alternate option.

Charlene Souliere

From: Jamie Batchelor <jamie.batchelor@rvca.ca>
Sent: November 16, 2021 8:31 PM
To: Charlene Souliere
Cc: Adam Fobert
Subject: RE: 1186-1194 Wellington Street West - Quality Control Requirements

Good Evening Charlene,

I can confirm that rainwater from rooftop is considered clean for the purpose of protecting surface water quality and aquatic habitat. Based on the drawings provided, no additional on-site water quality control measures would be required save and except best management practices. We strongly encourage you to explore opportunities to incorporate Lid measures into the stormwater management plan for this site.

Jamie Batchelor, MCIP, RPP
Planner, ext. 1191
Jamie.batchelor@rvca.ca

Rideau Valley Conservation Authority
3889 Rideau Valley Drive
PO Box 599, Manotick ON K4M 1A5
T 613-692-3571 | 1-800-267-3504 F 613-692-0831 | www.rvca.ca

From: Charlene Souliere <CSouliere@dsel.ca>
Sent: Tuesday, November 9, 2021 4:35 PM
To: Jamie Batchelor <jamie.batchelor@rvca.ca>
Cc: Adam Fobert <AFobert@dsel.ca>
Subject: 1186-1194 Wellington Street West - Quality Control Requirements

Hello Jamie,

We wanted to touch base with you regarding a development at 1186-1194 Wellington Street West. Our client, Minto, have submitted a ZBLA application to allow for the construction of a 18-storey residential building with a retail podium and underground parking.

The existing site conditions consist of one commercial building, one institutional building and an above-ground parking area, as demonstrated in Figure 1 below.

The development involves the construction of an 18-storey residential/commercial building, as shown in the contemplated site plan attached. Based on the information available, the development will discharge stormwater to the 525 mm diameter storm sewer within Hamilton Avenue and will travel approximately 1.9 km towards the Ottawa River. Refer to Figure 2 below for further details.

We anticipate that quality controls will not be required since the roof of the building occupies almost the entirety of the site. Can you please review and provide recommendations?

Please feel free to contact me to discuss.

Figure 1: Existing Site Limits

Figure 2: Distance to Outlet

Thanks,

Charlene Souliere

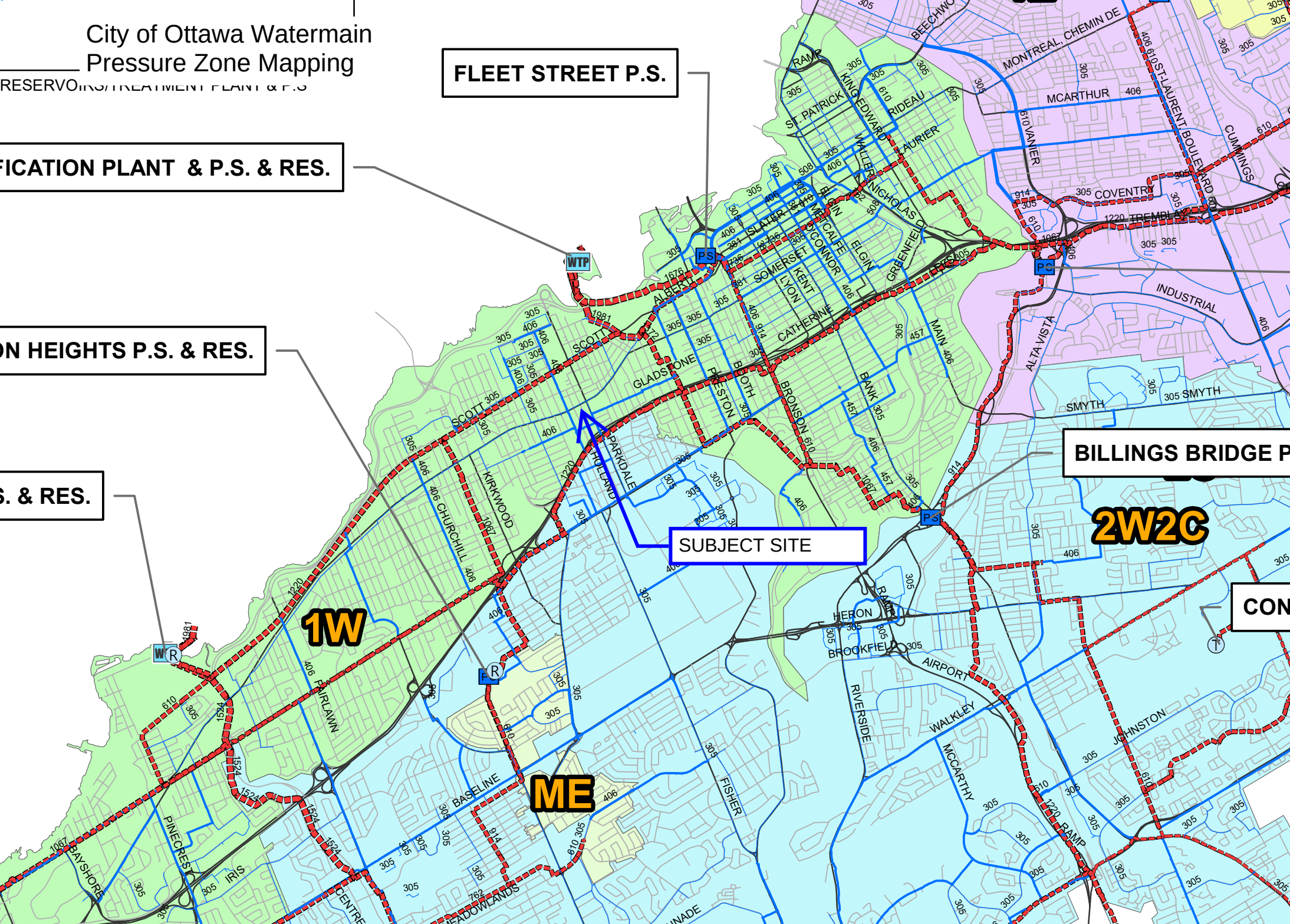
DSEL

david schaeffer engineering ltd.

120 Iber Road, Suite 103
Ottawa, ON K2S 1E9

APPENDIX B

Water Supply


City of Ottawa Watermain
Pressure Zone Mapping
RESERVOIRS/TREATMENT PLANT & P.S
FLEET STREET P.S.
FICATION PLANT & P.S. & RES.
ON HEIGHTS P.S. & RES.
S. & RES.
SUBJECT SITE
1W
ME
2W2C
BILLINGS BRIDGE P
CON
WTP
PS
MONTREAL, CHEMIN DE
MCARTHUR
ST-LAURENT BOULEVARD
CUMMINGS
VANIER
COVENTRY
TREMBLAY
INDUSTRIAL
ALTA VISTA
SMYTH
MAIN
BANK
BRONSON
PRESTON
BLOOR
GLADSTONE
SCOTT
ALBERT
SOMERSET
KENT
LYON
CATHERINE
O'CONNOR
MACLAREN
ELGIN
GREENFIELD
NICHOLAS
WALLER
KING EDWARD
RIDEAU
LAURIER
ST. PATRICK
RAMP
PARKDALE
ROLAND
KIRKWOOD
CHURCHILL
FAIRLAWN
BAYSHORE
PINECREST
IRIS
BASELINE
MEADOWLANDS
FISHER
RIVERSIDE
AIRPORT
HERON
BROOKFIELD
WALKLEY
MCCARTHY
JOHNSTON

1186-1194 Wellington St
Proposed Site Conditions

Water Demand Design Flows per Unit Count
City of Ottawa - Water Distribution Guidelines, July 2010

Domestic Demand

Type of Housing	Per / Unit	Units	Pop
Single Family	3.4	-	0
Semi-detached	2.7	-	0
Townhouse	2.7	-	0
Apartment			0
Bachelor	1.4	-	0
1 Bedroom	1.4	-	0
2 Bedroom	2.1	-	0
3 Bedroom	3.1	-	0
Average	1.8	212	382

	Pop	Avg. Daily		Max Day		Peak Hour	
		m^3/d	L/min	m^3/d	L/min	m^3/d	L/min
Total Domestic Demand	382	107.0	74.3	320.9	222.8	481.3	334.3

Institutional / Commercial / Industrial Demand

			Avg. Daily		Max Day		Peak Hour	
Property Type	**Unit Rate**	**Units**	m^3/d	L/min	m^3/d	L/min	m^3/d	L/min
Commercial floor space	2.5 $L/m^2/d$	1,148	2.87	2.0	4.3	3.0	7.7	5.4
Office	75 $L/9.3m^2/d$		0.00	0.0	0.0	0.0	0.0	0.0
Restaurant*	125 L/seat/d	-	0.00	0.0	0.0	0.0	0.0	0.0
Industrial - Light	35,000 L/gross ha/d	-	0.00	0.0	0.0	0.0	0.0	0.0
Industrial - Heavy	55,000 L/gross ha/d	-	0.00	0.0	0.0	0.0	0.0	0.0
Total I/CI Demand			2.9	2.0	4.3	3.0	7.7	5.4
Total Demand			**109.8**	**76.3**	**325.2**	**225.8**	**489.1**	**339.6**

* Estimated number of seats at 1 seat per $9.3m^2$

Fire Flow Estimation per Fire Underwriters Survey

Water Supply For Public Fire Protection - 1999

Fire Flow Required

1. Base Requirement

$$F = 220C\sqrt{A}$$ L/min *Where **F** is the fire flow, **C** is the Type of construction and **A** is the Total floor area*

Type of Construction: Fire-Resistive Construction *Modified fire restistive per ISTB-2018-02 (non-combustible construction, sprinkler system).

C	0.6		*Type of Construction Coefficient per FUS Part II, Section 1*
A	13114.0	m^2	*Total floor area based on FUS Part II section 1*

Fire Flow	15116.2	L/min	
	15000.0	**L/min**	*rounded to the nearest 1,000 L/min*

Adjustments

2. Reduction for Occupancy Type

Non-Combustible	-25%	
Fire Flow	**11250.0**	**L/min**

3. Reduction for Sprinkler Protection

Sprinklered - Supervised	-50%	
Reduction	**-5625**	**L/min**

4. Increase for Separation Distance

	Cons. of Exposed Wall	S.D	Lw	Ha	LH	EC	
N	Non-Combustible	20.1m-30m	15	2	30	8%	
S	Non-Combustible	10.1m-20m	25	4	100	15%	
E	Non-Combustible	20.1m-30m	27	5	135	10%	
W	Non-Combustible	20.1m-30m	26	1	26	8%	
		% Increase				**41%**	*value not to exceed 75%*

Increase	**4612.5**	**L/min**

Lw = Length of the Exposed Wall
Ha = number of storeys of the adjacent structure. Max 5 stories
LH = Length-height factor of exposed wall. Value rounded up.
EC = Exposure Charge

Total Fire Flow

Fire Flow	10237.5	L/min	*fire flow not to exceed 45,000 L/min nor be less than 2,000 L/min per FUS Section 4*
	10000.0	**L/min**	*rounded to the nearest 1,000 L/min*

Notes:
-Type of construction, Occupancy Type and Sprinkler Protection information provided Dialog
-Calculations based on Fire Underwriters Survey - Part II

Boundary Conditions for 1186-1194 Wellington Street W
N
rue Wellington St. O./W.
Parkdale Ave.
av. Parkdale Ave.
av. Hamilton Ave. N.
Wellington Connection
Parkdale Connection (Alternative)
Hamilton Connection
203
203
305
102
21
25
1187
1197
1166
1186
1188
1194
416
45
Legend
PRIVATE
PUBLIC
City of Ottawa

Alison Gosling

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: June 9, 2021 9:57 AM
To: Alison Gosling
Subject: RE: 1186-1194 Wellington St W - Boundary condition request
Attachments: 1186-1194 Wellington St June 2021.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning Alison.

Further to your request, please find water boundary conditions, below:

The following are boundary conditions, HGL, for hydraulic analysis at (zone 1W) assumed to be connected to the 305 mm on Wellington Street and the 203 mm on Hamilton Avenue OR the 305 mm on Parkdale Ave alternative connection (see attached PDF for location).

	305 mm on Wellington	203 mm on Hamilton	305 mm on Parkdale (Alternative)
Minimum HGL (m)	108.0	108.0	108.0
Maximum HGL (m)	114.5	114.5	114.5
Max Day + Fire Flow (183 L/s) (m)	109.5	106.7	109.5

These are for current conditions and are based on computer model simulation.

Disclaimer: The boundary condition information is based on current operation of the city water distribution system. The computer model simulation is based on the best information available at the time. The operation of the water distribution system can change on a regular basis, resulting in a variation in boundary conditions. The physical properties of watermains deteriorate over time, as such must be assumed in the absence of actual field test data. The variation in physical watermain properties can therefore alter the results of the computer model simulation.

If you require additional information or clarification, please do not hesitate to contact me anytime.

Thank you

Regards,

Shawn Wessel, A.Sc.T.,rcji
Project Manager - Infrastructure Approvals
Gestionnaire de projet – Approbation des demandes d'infrastructures

Development Review Central Branch | Direction de l'examen des projets d'aménagement, Centrale
Planning, Infrastructure and Economic Development Department | Direction générale de la planification de l'infrastructure et du développement économique
City of Ottawa | Ville d'Ottawa
110 Laurier Ave. W. | 110, avenue Laurier Ouest, Ottawa ON K1P 1J1
(613) 580 2424 Ext. | Poste 33017
Int. Mail Code | Code de Courrier Interne 01-14
shawn.wessel@ottawa.ca

*****Please also note that, while my work hours may be affected by the current situation and am working from home, I still have access to email, video conferencing and telephone. Feel free to schedule video conferences and/or telephone calls, as necessary.*****

From: Alison Gosling <AGosling@dsel.ca>
Sent: June 09, 2021 9:19 AM
To: Wessel, Shawn <shawn.wessel@ottawa.ca>
Subject: RE: 1186-1194 Wellington St W - Boundary condition request

Hi Shawn,

Just checking in on this request. Is it being processed by the water department?

Thank you,

Alison Gosling, P.Eng.

Junior Project Manager

DSEL
david schaeffer engineering ltd.

120 Iber Road, Unit 103
Stittsville, ON K2S 1E9

cell: (343) 542-9218
email: agosling@dsel.ca

Please note that I will be working remotely given the current circumstances. Please send me an email should you wish to discuss over the phone and I will return your call as soon as possible.

From: Alison Gosling
Sent: June 2, 2021 4:21 PM
To: 'Wessel, Shawn' <shawn.wessel@ottawa.ca>
Subject: 1186-1194 Wellington St W - Boundary condition request

Good afternoon Shawn,

We would like to request water boundary conditions for Wellington St W, Hamilton Ave, and Parkdale Ave using the following proposed development demands:

1. Location of Service / Street Number: 1186-1194 Wellington St W

2. Type of development and the amount of fire flow required for the proposed development:

- The proposed development is mixed use residential/commercial. The full build-out proposes 240 residential units and approximately 1,330 m^2 of commercial/amenity space.
- It is anticipated that the development will have a dual connection to the existing 203 mm diameter watermain within Hamilton Avenue and the 305 mm diameter watermain within Wellington St W, as shown by the attached map. At this time the water entry location has not been confirmed therefore, pressures within the 305 mm diameter Parkdale Ave watermain are also requested for comparison.
- City of Ottawa Technical Bulletin ISTB-2018-02 has been used to calculate an estimated fire demand of 11,000 L/min for the development. Refer to detailed calculations (attached) for further information.

3.

	L/min	L/s
Avg. Daily	86.3	1.44
Max Day	255.5	4.26
Peak Hour	384.2	6.40

If you have any questions, please feel free to contact me.

Thank you,

Alison Gosling, P.Eng.
Junior Project Manager

DSEL
david schaeffer engineering ltd.

120 Iber Road, Unit 103
Stittsville, ON K2S 1E9

cell: (343) 542-9218
email: agosling@dsel.ca

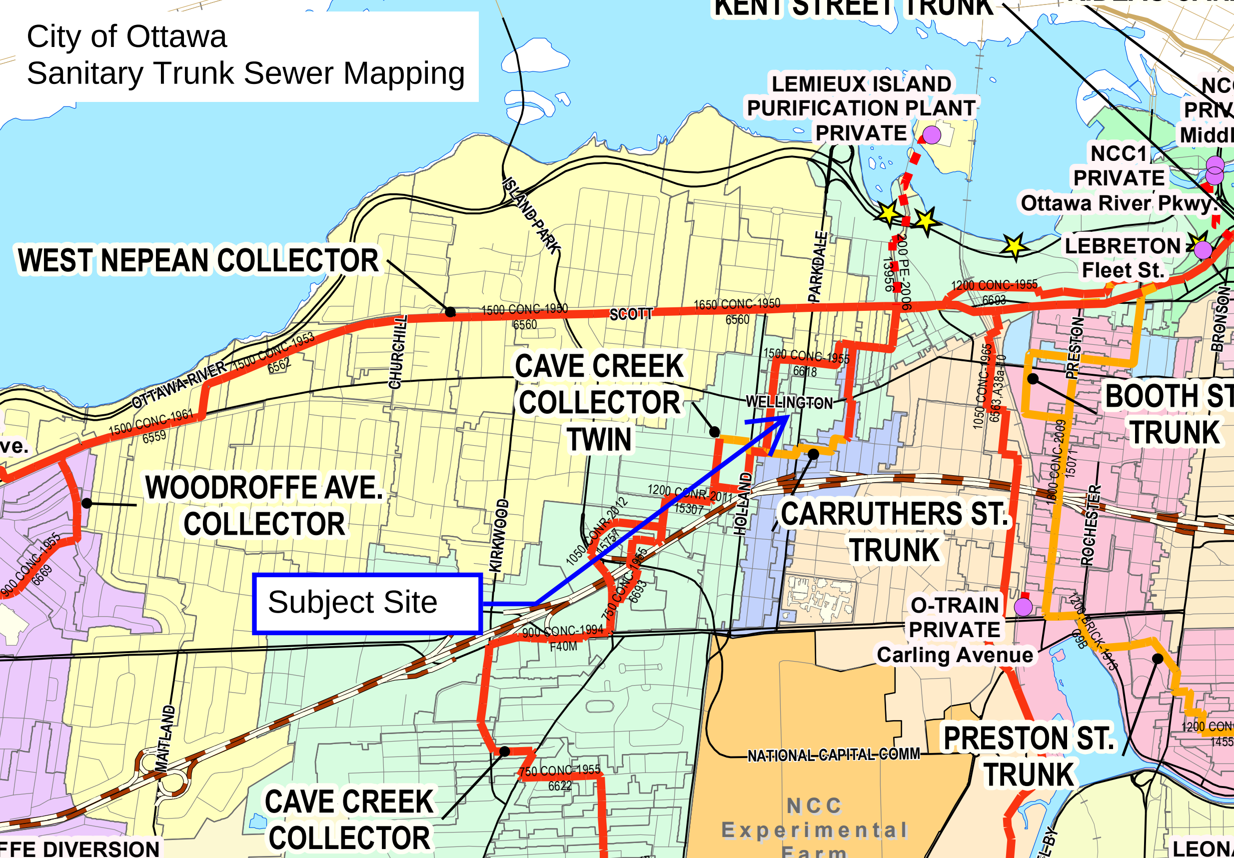
Please note that I will be working remotely given the current circumstances. Please send me an email should you wish to discuss over the phone and I will return your call as soon as possible.

'

'

APPENDIX C

Wastewater Collection


City of Ottawa
Sanitary Trunk Sewer Mapping
KENT STREET TRUNK
LEMIEUX ISLAND
PURIFICATION PLANT
PRIVATE
NCC1
PRIVATE
Ottawa River Pkwy.
LEBRETON
Fleet St.
WEST NEPEAN COLLECTOR
1500 CONC-1950
6560
SCOTT
1650 CONC-1950
6560
1200 CONC-1955
6693
OTTAWA RIVER
1500 CONC-1953
6562
1500 CONC-1961
6559
CHURCHILL
ISLAND PARK
PARKDALE
200 PE-2006
13956
CAVE CREEK
COLLECTOR
TWIN
1500 CONC-1955
6618
WELLINGTON
1050 CONC-1965
6563,A38a-10
PRESTON
BOOTH ST
TRUNK
1800 CONC-2009
15071
ROCHESTER
BRONSON
WOODROFFE AVE.
COLLECTOR
900 CONC-1955
6669
1200 CONR-2011
15307
1050 CONR-2012
15757
750 CONC-1955
6693
HOLLAND
KIRKWOOD
CARRUTHERS ST.
TRUNK
Subject Site
900 CONC-1994
F40M
O-TRAIN
PRIVATE
Carling Avenue
1200 BRICK-1913
69B
MAITLAND
NATIONAL CAPITAL COMM
PRESTON ST.
TRUNK
750 CONC-1955
6622
CAVE CREEK
COLLECTOR
NCC
Experimental
Farm
FFE DIVERSION
LEONA

1186-1194 Wellington St
Proposed Site Conditions

Wastewater Design Flows per Unit Count
City of Ottawa Sewer Design Guidelines, 2004

Site Area	0.247	**ha**

Extraneous Flow Allowances

Infiltration / Inflow (Dry)	**0.01**	**L/s**
Infiltration / Inflow (Wet)	**0.07**	**L/s**
Infiltration / Inflow (Total)	**0.08**	**L/s**

Domestic Contributions

Unit Type	**Unit Rate**	**Units**	**Pop**
Single Family	3.4		0
Semi-detached and duplex	2.7		0
Townhouse	2.7		0
Stacked Townhouse	2.3		0
Apartment			
Bachelor	1.4		0
1 Bedroom	1.4		0
2 Bedroom	2.1		0
3 Bedroom	3.1		0
Average	1.8	212	382

Total Pop	**382**	
Average Domestic Flow	**1.55**	**L/s**
Peaking Factor	**3.43**	
Peak Domestic Flow	**5.30**	**L/s**

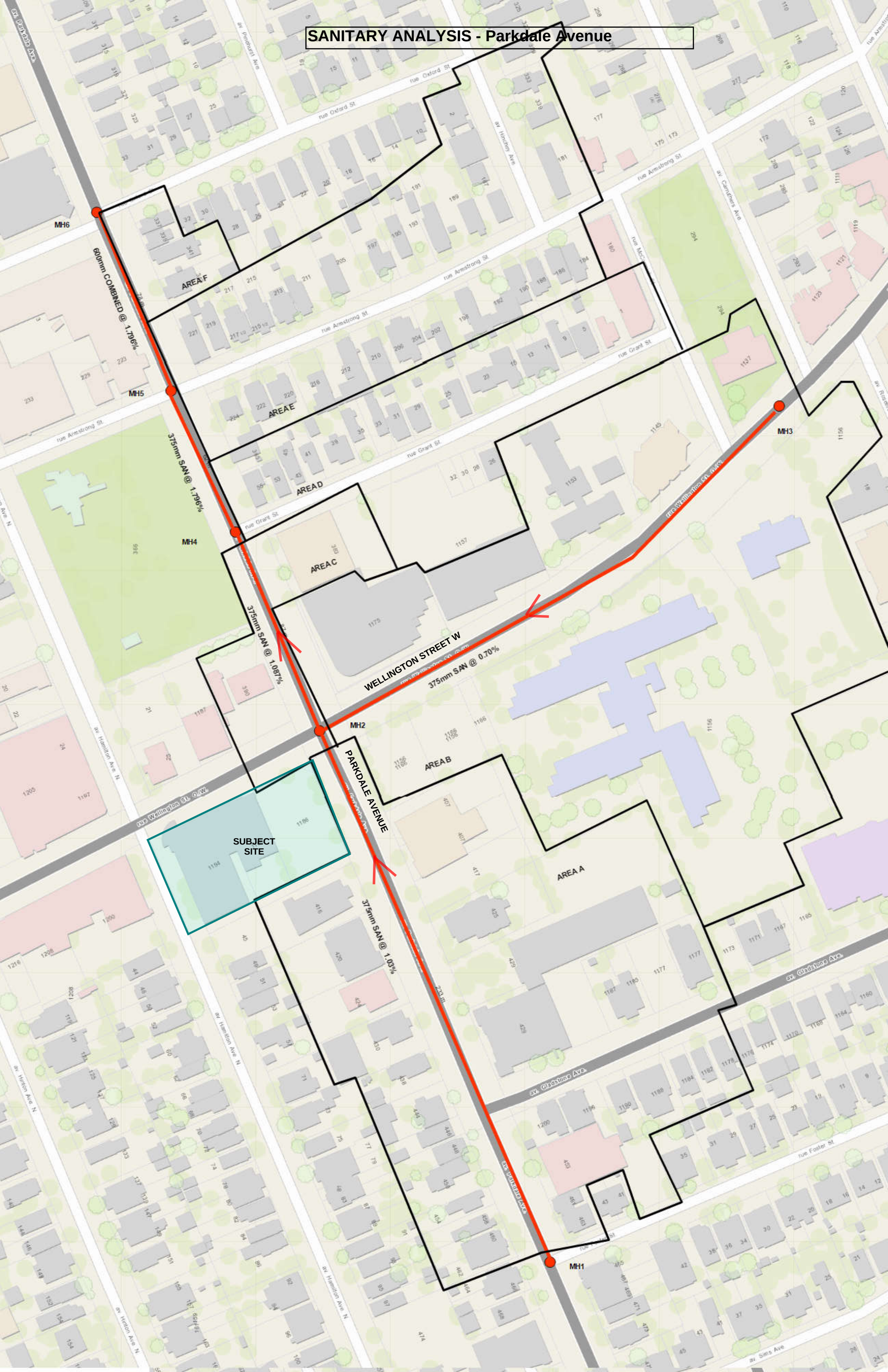
Institutional / Commercial / Industrial Contributions

Property Type	**Unit Rate**	**No. of Units**	**Avg Wastewater (L/s)**
Commercial floor space	2.5 $L/m^2/d$	1,148	0.80

Average I/C/I Flow	**0.80**
Peak Institutional / Commercial Flow	0.80
Peak Industrial Flow**	0.00
Peak I/C/I Flow	**0.80**

Total Estimated Average Dry Weather Flow Rate	**2.36**	**L/s**
Total Estimated Peak Dry Weather Flow Rate	**6.11**	**L/s**
Total Estimated Peak Wet Weather Flow Rate	**6.18**	**L/s**

SANITARY ANALYSIS - Parkdale Avenue



Minto
1186-1194 Wellington St
Proposed Site Conditions

PROJECT: **Welldale Limited Partnership**
LOCATION: **1186-1194 Wellington Street W**
FILE REF: **20-1188**
DATE: **23-Jun-21**

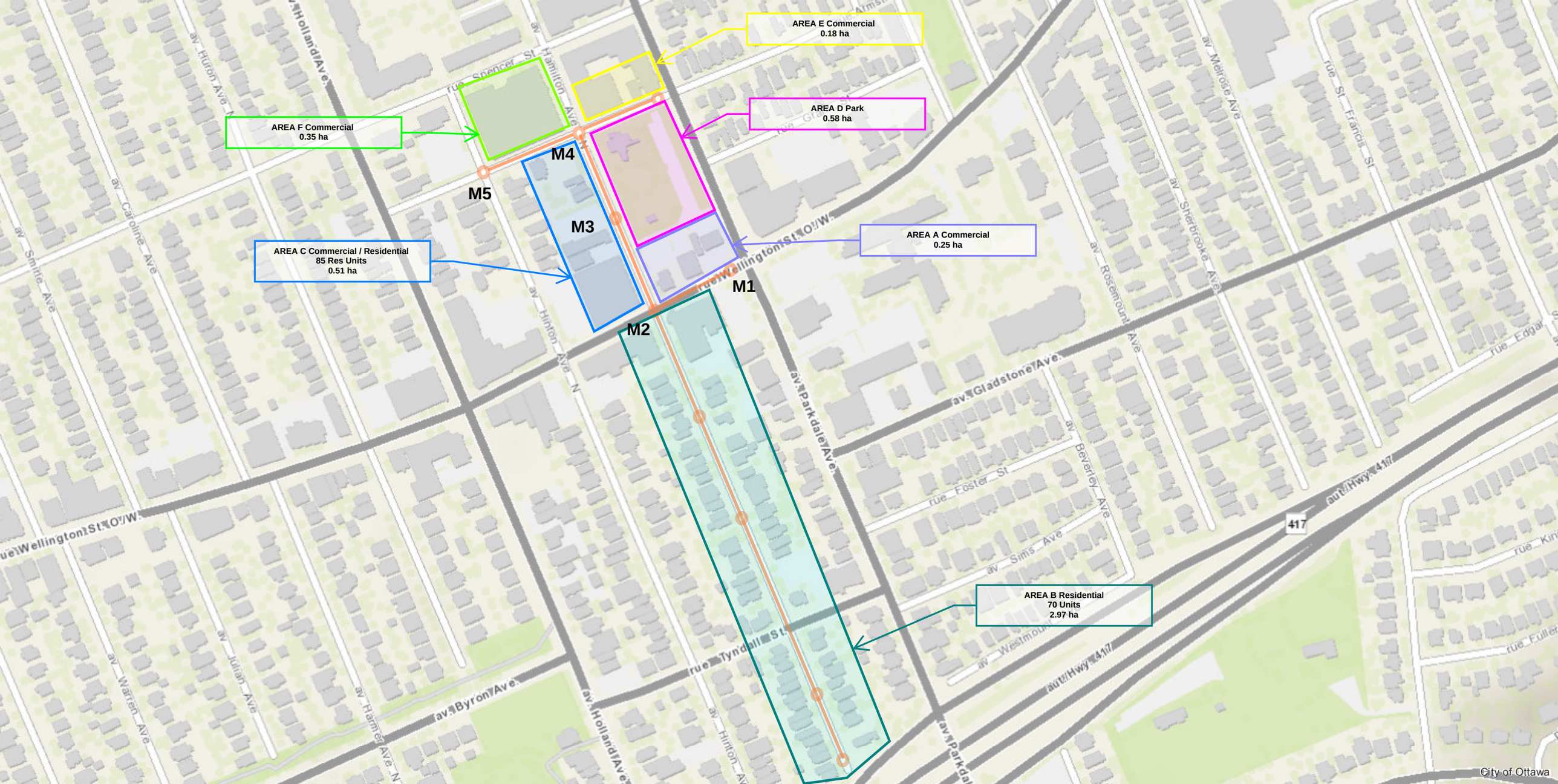
DESIGN PARAMETERS

Avg. Daily Flow Res.	280	L/p/d	Peak Fact Res. Per Harmons: Min = 2.0, Max =4	
Avg. Daily Flow Comm	28,000	L/ha/d	Peak Fact. Comm.	1.5
Avg. Daily Flow Instit.	28,000	L/ha/d	Peak Fact. Instit.	1.5
Avg. Daily Flow Indust	35,000	L/ha/d	Peak Fact. Indust. per MOE graph	

Location			Residential Area and Population									Commercial		Institutional		Industrial			Infiltration	
Area ID	Up	Down	Area	Number of Units by type				Pop.	Cumulative Area	Cumulative Pop.	Peak. Fact.	Q_{res}	Area	Accu. Area	Area	Accu. Area	Area	Accu. Area	Q_{C+I+I}	Total Area	Accu. Area
			(ha)	Singles	Semi's	Town's	Apt's		(ha)		(-)	(L/s)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(L/s)	(ha)	(ha)
Area A	MH1	MH2	1.376	15			223	452.0	1.376	452.0	4.00	5.85		0.00	1.14	1.14		0.00	1.0	2.516	2.516
Area B	MH3	MH2	0.550				258	464.0	1.926	916.0	3.82	11.35	0.22	0.22	2.48	3.62		0.00	3.3	3.250	5.766
Area C	MH2	MH4	0.000					0.0	1.926	916.0	3.82	11.35	0.40	0.62		3.62		0.00	3.7	0.400	6.166
Area D& AREA E	MH4	MH5	2.240	51			6	184.0	4.166	1100.0	3.77	13.45	0.06	0.68		3.62		0.00	3.7	2.300	8.466
Area F	MH5	MH6	0.160	4				14.0	4.326	1114.0	3.77	13.61		0.68		3.62		0.00	3.7	0.160	8.626

.0	Infiltration / Inflow	0.33	L/s/ha
	Min. Pipe Velocity	0.60	m/s full flowing
	Max. Pipe Velocity	3.00	m/s full flowing
	Mannings N	0.013	

		Pipe Data							
Infiltration Flow (L/s)	Total Flow (L/s)	DIA (mm)	Slope (%)	Length (m)	$A_{hydraulic}$ (m^2)	R (m)	Velocity (m/s)	Q_{cap} (L/s)	Q / Q full (-)
0.704	7.55	375	1.03	233.0	0.110	0.094	1.61	177.9	0.04
1.614	16.30	375	0.70	228.0	0.110	0.094	1.32	146.3	0.11
1.726	16.76	375	1.09	87.0	0.110	0.094	1.66	182.8	0.09
2.370	19.55	375	1.80	62.0	0.110	0.094	2.13	235.0	0.08
2.415	19.76	600	1.80	78.0	0.283	0.150	2.91	822.9	0.02


AREA E Commercial
0.18 ha
AREA D Park
0.58 ha
AREA F Commercial
0.35 ha
M4
M5
M3
M1
M2
AREA A Commercial
0.25 ha
AREA C Commercial / Residential
85 Res Units
0.51 ha
AREA B Residential
70 Units
2.97 ha
av Holland Ave
av Hamilton Ave N
rue Spencer St
av Huron Ave
av Caroline Ave
av Shirley Ave
av Hinton Ave N
rue Wellington St O/W
av Parkdale Ave
av Gladstone Ave
av Rosemount Ave
av Sherbrooke Ave
av Melrose Ave
rue St Francis St
rue Edgar
rue Foster St
av Beverley Ave
av Sims Ave
av Westmount
rue Tyndall St
av Byron Ave
av Warren Ave
av Julian Ave
av Harmer Ave N
aut/Hwy 417
417
City of Ottawa

Minto
1186-1194 Wellington St
Proposed Site Conditions

PROJECT: **Welldale Limited Partnership**
LOCATION: **1186-1194 Wellington Street W**
FILE REF: **20-1188**
DATE: **23-Jun-21**

0.247

DESIGN PARAMETERS

Avg. Daily Flow Res.	280	L/p/d	Peak Fact Res. Per Harmons: Min = 2.0, Max =4	
Avg. Daily Flow Comm	28,000	L/ha/d	Peak Fact. Comm.	1.5
Avg. Daily Flow Instit.	28,000	L/ha/d	Peak Fact. Instit.	1.5
Avg. Daily Flow Indust	35,000	L/ha/d	Peak Fact. Indust. per MOE graph	

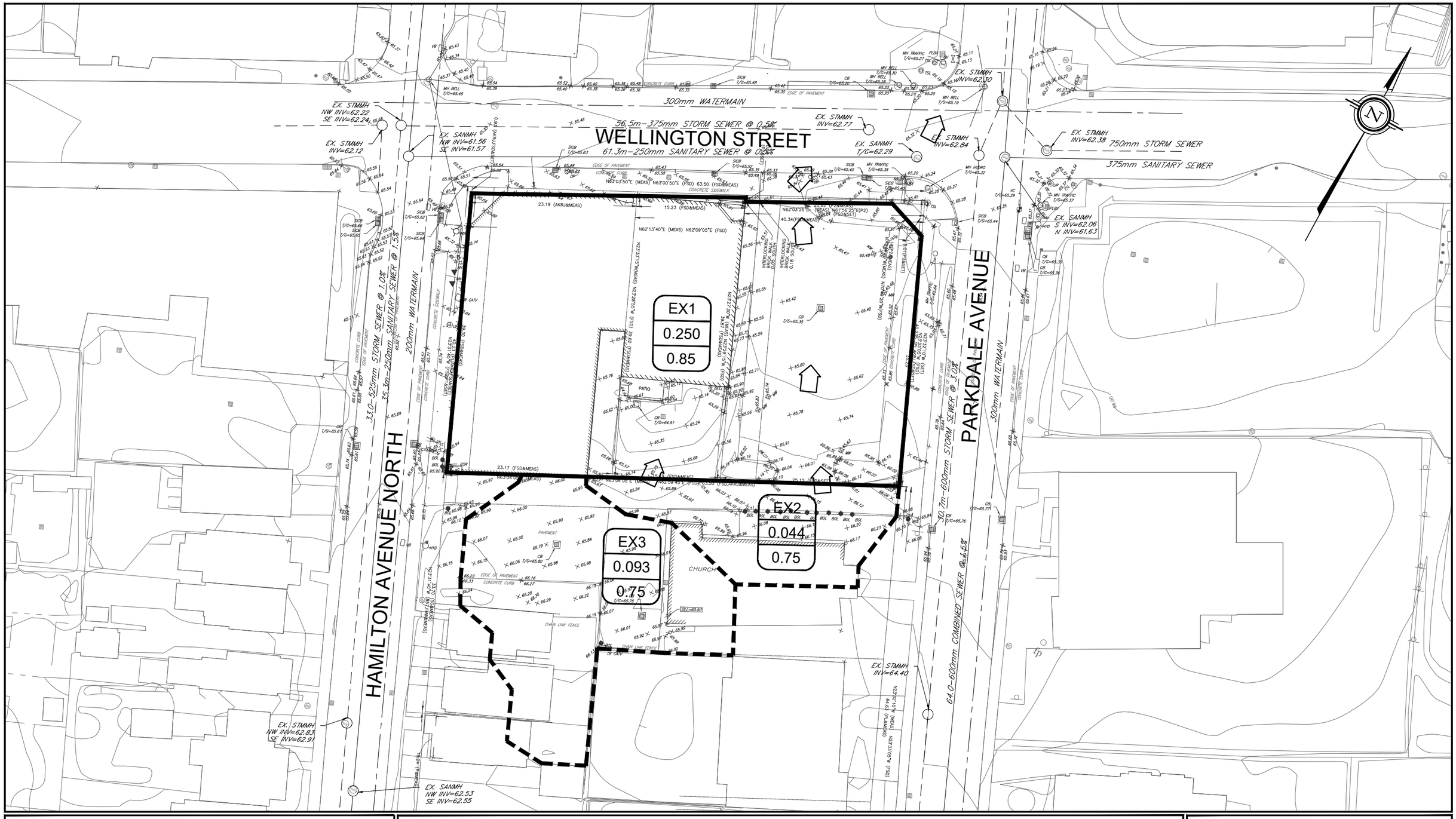
Location			Residential Area and Population									Commercial		Institutional		Industrial			Infiltration	
Area ID	Up	Down	Area	Number of Units by type				Pop.	Cumulative Area	Cumulative Pop.	Peak. Fact.	Q_{res}	Area	Accu. Area	Area	Accu. Area	Area	Accu. Area	Q_{C+I+I}	Total Area	Accu. Area
			(ha)	Singles	Semi's	Town's	Apt's		(ha)		(-)	(L/s)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(L/s)	(ha)	(ha)
Area A	MH1	MH2						0.0	0.000	0.0	4.00	0.00	0.25	0.25		0.00		0.00	0.2	0.250	0.250
Area B	MH2	MH3	2.970	45	20	5		221.0	2.970	221.0	4.00	2.86		0.25		0.00		0.00	0.2	2.970	3.220
Area C & AREA D	MH3	MH4	0.510				85	153.0	3.480	374.0	4.00	4.85	0.58	0.83		0.00		0.00	0.7	1.090	4.310
AREA E & AREA F	MH4	MH5						0.0	3.480	374.0	4.00	4.85	0.35	1.18		0.00		0.00	1.0	0.350	4.660

.0	Infiltration / Inflow	0.33	L/s/ha
	Min. Pipe Velocity	0.60	m/s full flowing
	Max. Pipe Velocity	3.00	m/s full flowing
	Mannings N	0.013	

		Pipe Data							
Infiltration Flow (L/s)	**Total Flow (L/s)**	**DIA (mm)**	**Slope (%)**	**Length (m)**	**$A_{hydraulic}$ (m^2)**	**R (m)**	**Velocity (m/s)**	**Q_{cap} (L/s)**	**Q / Q full (-)**
0.070	0.29	250	1.02	71.0	0.049	0.063	1.22	60.1	0.00
0.902	3.98	250	1.12	84.0	0.049	0.063	1.28	62.9	0.06
1.207	6.78	250	0.54	71.0	0.049	0.063	0.89	43.7	0.16
1.305	7.18	300	1.50	62.0	0.071	0.075	1.68	118.4	0.06

APPENDIX D

Stormwater Management



DSEL
david schaeffer engineering ltd
SMART SUBDIVISIONS™

120 Iber Road, Unit 103
Stittsville, ON K2S 1E9
TEL: (613) 836-0856
FAX: (613) 836-7183
www.DSEL.ca

1186 WELLINGTON STREET
EXISTING DRAINAGE

PROJECT No.:	20-1188
SCALE:	1:500
DATE:	JUNE 2021
FIGURE:	1

z:\projects\20-1188_minto_1186-wellington\b_design\b2_drawings\b2-5_sketches and figures\2021-06-14_swm-figure\2021-06-23_1188_swm-figure.dwg

Minto
1186 Wellington Street
Existing Conditions

Estimated Peak Stormwater Flow Rate
City of Ottawa Sewer Design Guidelines, 2012

Existing Drainage	**Charateristics From Internal Site**	
ID	EX1	
Area	0.250	ha
C	0.85	Rational Method runoff coefficient
L	39.5	m
Up Elev	66.1	m
Dn Elev	65.44	m
Slope	1.7	%
Tc	10.0	min

1) Time of Concentration per Federal Aviation Administration

$$t_c = \frac{1.8(1.1-C)L^{0.5}}{S^{0.333}}$$

tc, in minutes
C, rational method coefficient, (-)
L, length in ft
S, average watershed slope in %

Estimated Peak Flow - Internal

	2-year	**5-year**	**100-year**	
i	76.8	104.2	178.6	mm/hr
Q	45.3	61.5	124.0	L/s

Note:
C value for the 100-year storm is increased by 25%, to a maximum of 1.0 per Ottawa Sewer Design Guidelines (5.4.5.2.1)

1186 Wellington Street
Existing Conditions

Estimated Peak Stormwater Flow Rate
City of Ottawa Sewer Design Guidelines, 2012

Existing Drainage	**Charateristics From External Site**	
ID	EX2,	
Area	0.044	ha
C	0.75	Rational Method runoff coefficient
L	18	m
Up Elev	66.1	m
Dn Elev	66.01	m
Slope	0.5	%
Tc	10.0	min

1) Time of Concentration per Federal Aviation Administration

$$t_c = \frac{1.8(1.1-C)L^{0.5}}{S^{0.333}}$$

tc, in minutes
C, rational method coefficient, (-)
L, length in ft
S, average watershed slope in %

Estimated Peak Flow - External

	2-year	**5-year**	**100-year**	
i	76.8	104.2	178.6	mm/hr
Q	7.0	9.6	20.5	L/s

Existing Major System Drainage	**Charateristics From External Sit**	
ID	EX3	
Area	0.093	ha
C	0.75	Rational Method runoff coefficient
L	36	m
Up Elev	66.75	m
Dn Elev	65.92	m
Slope	2.3	%
Tc	10.0	min

1) Time of Concentration per Federal Aviation Administration

$$t_c = \frac{1.8(1.1-C)L^{0.5}}{S^{0.333}}$$

tc, in minutes
C, rational method coefficient, (-)
L, length in ft
S, average watershed slope in %

Estimated Peak Flow

	2-year	**5-year**	**100-year**	
i	76.8	104.2	178.6	mm/hr
Q	14.9	20.2	43.2	L/s

Estimated External Major System Flow (100 year flow - 5year flow

Q	23.1	L/s

Note:
C value for the 100-year storm is increased by 25%, to a maximum of 1.0 per Ottawa Sewer Design Guidelines (5.4.5.2.1)

Alex Tourigny

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: May 11, 2022 1:55 PM
To: Alex Tourigny
Cc: Kevin A. Harper; Laurence Coulson
Subject: RE: Minto Communities 1186, 1188, 1194 Wellington West Site Plan Application - Civil Inquiry

Good afternoon, Alex.

We do not have any issue with a single connection, as proposed.

If you require additional information or clarification, please do not hesitate to contact me anytime.

Thank you

Regards,

Shawn Wessel, A.Sc.T.,rcji
Project Manager - Infrastructure Approvals
Gestionnaire de projet – Approbation des demandes d'infrastructures

Development Review Central Branch | Direction de l'examen des projets d'aménagement, Centrale
Planning, Real Estate and Economic Development Department | Direction générale de la planification des biens immobiliers et du développement économique
City of Ottawa | Ville d'Ottawa
110 Laurier Ave. W. | 110, avenue Laurier Ouest, Ottawa ON K1P 1J1
(613) 580 2424 Ext. | Poste 33017
Int. Mail Code | Code de Courrier Interne 01-14
shawn.wessel@ottawa.ca

*****Please also note that, while my work hours may be affected by the current situation and am working from home, I still have access to email, video conferencing and telephone. Feel free to schedule video conferences and/or telephone calls, as necessary.*****

From: Alex Tourigny <ATourigny@dsel.ca>
Sent: May 10, 2022 9:11 AM
To: Wessel, Shawn <shawn.wessel@ottawa.ca>
Cc: Kevin A. Harper <KHarper@minto.com>; Laurence Coulson <LCoulson@dsel.ca>
Subject: Minto Communities 1186, 1188, 1194 Wellington West Site Plan Application - Civil Inquiry

Hi Shawn,

Minto Communities is proceeding with their site plan design for their 1186 Wellington project. We had submitted an Assessment of Adequacy of Public Services Report for the site in June 2021 in support of the application. For stormwater, the total release rate for the site was determined to be 26.7 L/s based on the City provided criteria of 2year release rate with a maximum C-value of 0.5 and minimum TC of 10 minutes. A site review has determined that there are portions of the site currently draining to Parkdale, and portions also draining to Wellington and Hamilton.

As we're using a very restrictive release rate and that the Parkdale, Wellington and Hamilton storm sewers are all tributary to the same system on Armstrong, we're going to be proposing a single connection on Wellington Street.

Please let us know if there are any objections to this approach. We'd like to confirm the outlets to allow building design to proceed and wrap up the civil component.

Thank you,

Alex Tourigny, P.Eng.

DSEL

david schaeffer engineering ltd.

120 Iber Road, Unit 103
Stittsville, ON K2S 1E9

phone: (613) 836-0856
cell: (343) 542-8847
e-mail: atourigny@dsel.ca

Minto
1186 Wellington Street
Existing Conditions - Internal

Estimated Peak Stormwater Flow Rate
City of Ottawa Sewer Design Guidelines, 2012

Existing Drainage Charateristics From Internal Site

ID	Existing Drainage	
Area	0.277	ha
C	0.85	Rational Method runoff coefficient
L	39.5	m
Up Elev	66.1	m
Dn Elev	65.44	m
Slope	1.7	%
Tc	10.0	min

1) Time of Concentration per Federal Aviation Administration

$$t_c = \frac{1.8(1.1-C)L^{0.5}}{S^{0.333}}$$

tc, in minutes
C, rational method coefficient, (-)
L, length in ft
S, average watershed slope in %

Estimated Peak Flow - Internal

	2-year	5-year	100-year	
i	76.8	104.2	178.6	mm/hr
Q	50.2	68.1	137.4	L/s

Note:
C value for the 100-year storm is increased by 25%, to a maximum of 1.0 per Ottawa Sewer Design Guidelines (5.4.5.2.1)

Minto
1186 Wellington Street
Existing Conditions - External

Estimated Peak Stormwater Flow Rate
City of Ottawa Sewer Design Guidelines, 2012

Existing Drainage	**Charateristics From External Site**	
ID	EX1	
Area	0.101	ha
C	0.75	Rational Method runoff coefficient
L	18	m
Up Elev	66.1	m
Dn Elev	66.01	m
Slope	0.5	%
Tc	10.0	min

1) Time of Concentration per Federal Aviation Administration

$$t_c = \frac{1.8(1.1-C)L^{0.5}}{S^{0.333}}$$

tc, in minutes
C, rational method coefficient, (-)
L, length in ft
S, average watershed slope in %

Estimated Peak Flow - External

	2-year	**5-year**	**100-year**	
i	76.8	104.2	178.6	mm/hr
Q	16.2	21.9	47.0	L/s

Note:
C value for the 100-year storm is increased by 25%, to a maximum of 1.0 per Ottawa Sewer Design Guidelines (5.4.5.2.1)

Stormwater - Proposed Development
City of Ottawa Sewer Design Guidelines, 2012

Target Flow Rate

Area	0.277	ha
C	0.50	Rational Method runoff coefficient
t_c	10.0	min

	2-year	**5-year**	**100-year**	
i	76.8	104.2	178.6	mm/hr
controlled Q	29.5	29.5	29.5	L/s

Estimated Post Development Peak Flow from Unattenuated Areas

Total Area	0.032	ha
C	0.85	Rational Method runoff coefficient

	5-year					**100-year**				
t_c (min)	**i (mm/hr)**	**Q_{actual} (L/s)**	**$Q_{release}$ (L/s)**	**Q_{stored} (L/s)**	**V_{stored} (m^3)**	**i (mm/hr)**	**Q_{actual} (L/s)**	**$Q_{release}$ (L/s)**	**Q_{stored} (L/s)**	**V_{stored} (m^3)**
10.0	104.2	7.9	7.9	0.0	0.0	178.6	15.9	15.9	0.0	0.0

Note:
C value for the 100-year storm is increased by 25%, to a maximum of 1.0 per Ottawa Sewer Design Guidelines (5.4.5.2.1)

Estimated Post Development Peak Flow from Attenuated Areas

Total Area	0.245	ha
C	0.85	Rational Method runoff coefficient

	5-year					**100-year**				
t_c (min)	**i (mm/hr)**	**Q_{actual} (L/s)**	**$Q_{release}$ (L/s)**	**Q_{stored} (L/s)**	**V_{stored} (m^3)**	**i (mm/hr)**	**Q_{actual} (L/s)**	**$Q_{release}$ (L/s)**	**Q_{stored} (L/s)**	**V_{stored} (m^3)**
10	104.2	60.3	6.8	53.5	32.1	178.6	121.5	13.7	107.8	64.7
15	83.6	48.3	6.8	41.5	37.4	142.9	97.2	13.7	83.6	75.2
20	70.3	40.6	6.8	33.8	40.6	120.0	81.6	13.7	68.0	81.5
25	60.9	35.2	6.8	28.4	42.6	103.8	70.7	13.7	57.0	85.5
30	53.9	31.2	6.8	24.4	43.9	91.9	62.5	13.7	48.8	87.9
35	48.5	28.1	6.8	21.2	44.6	82.6	56.2	13.7	42.5	89.3
40	44.2	25.6	6.8	18.7	44.9	75.1	51.1	13.7	37.5	89.9
45	40.6	23.5	6.8	16.7	45.0	69.1	47.0	13.7	33.3	90.0
50	37.7	21.8	6.8	14.9	44.8	64.0	43.5	13.7	29.8	89.5
55	35.1	20.3	6.8	13.5	44.4	59.6	40.6	13.7	26.9	88.8
60	32.9	19.1	6.9	12.2	43.9	55.9	38.0	13.7	24.4	87.7
65	31.0	18.0	6.9	11.1	43.3	52.6	35.8	13.7	22.2	86.4
70	29.4	17.0	6.9	10.1	42.6	49.8	33.9	13.7	20.2	84.9
75	27.9	16.1	6.9	9.3	41.7	47.3	32.2	13.7	18.5	83.2
80	26.6	15.4	6.9	8.5	40.8	45.0	30.6	13.7	16.9	81.3
85	25.4	14.7	6.9	7.8	39.8	43.0	29.2	13.7	15.6	79.3
90	24.3	14.1	6.9	7.2	38.8	41.1	28.0	13.7	14.3	77.2
95	23.3	13.5	6.9	6.6	37.7	39.4	26.8	13.7	13.2	75.0
100	22.4	13.0	6.9	6.1	36.5	37.9	25.8	13.7	12.1	72.7
105	21.6	12.5	6.9	5.6	35.3	36.5	24.8	13.7	11.2	70.3
110	20.8	12.0	6.9	5.2	34.1	35.2	24.0	13.7	10.3	67.9

Note:
C value for the 100-year storm is increased by 25%, to a maximum of 1.0 per Ottawa Sewer Design Guidelines (5.4.5.2.1)

5-year $Q_{attenuated}$	**6.84 L/s**	**100-year $Q_{attenuated}$**	**13.68 L/s**
5-year Max. Storage Required	**45.0 m^3**	**100-year Max. Storage Required**	**90.0 m^3**

Summary of Release Rates and Storage Volumes

Control Area	**5-Year Release Rate (L/s)**	**5-Year Storage (m^3)**	**100-Year Release Rate (L/s)**	**100-Year Storage (m^3)**
Unattenuated Areas	7.9	0.0	15.9	0.0
Attenutated Areas	6.8	45.0	13.7	90.0
Total	**14.7**	**45.0**	**29.5**	**90.0**

Stormwater - Proposed Development
City of Ottawa Sewer Design Guidelines, 2012
Estimated Post Development Peak Flow from A2

Total Area 0.018 ha
C 0.85 Rational Method runoff coefficient

	5-year					100-year				
t_c (min)	i (mm/hr)	Q_{actual} (L/s)	$Q_{release}$ (L/s)	Q_{stored} (L/s)	V_{stored} (m^3)	i (mm/hr)	Q_{actual}* (L/s)	$Q_{release}$ (L/s)	Q_{stored} (L/s)	V_{stored} (m^3)
10.0	104.2	4.4	4.4	0.0	0.0	178.6	8.9	8.9	0.0	0.0

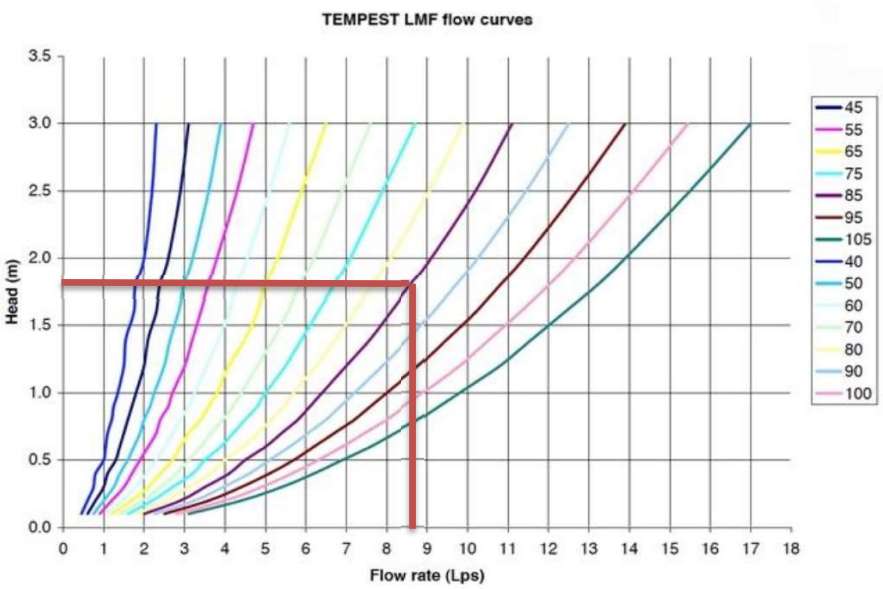
Note:
C value for the 100-year storm is increased by 25%, to a maximum of 1.0 per Ottawa Sewer Design Guidelines (5.4.5.2.1)

ICD Sizing

CB 12
Top of Lid 65.83 m
Invert 64 m
Depth 1.83 m

Target Q 8.9 L/s

Design Q 8.7 L/s
Tempest LMF 85



Stormwater - Proposed Development
City of Ottawa Sewer Design Guidelines, 2012
Estimated Post Development Peak Flow from A3

Total Area 0.026 ha
C 0.85 Rational Method runoff coefficient

	5-year					100-year				
t_c (min)	i (mm/hr)	Q_{actual} (L/s)	$Q_{release}$ (L/s)	Q_{stored} (L/s)	V_{stored} (m^3)	i (mm/hr)	Q_{actual}* (L/s)	$Q_{release}$ (L/s)	Q_{stored} (L/s)	V_{stored} (m^3)
10.0	104.2	6.4	6.4	0.0	0.0	178.6	12.9	12.9	0.0	0.0

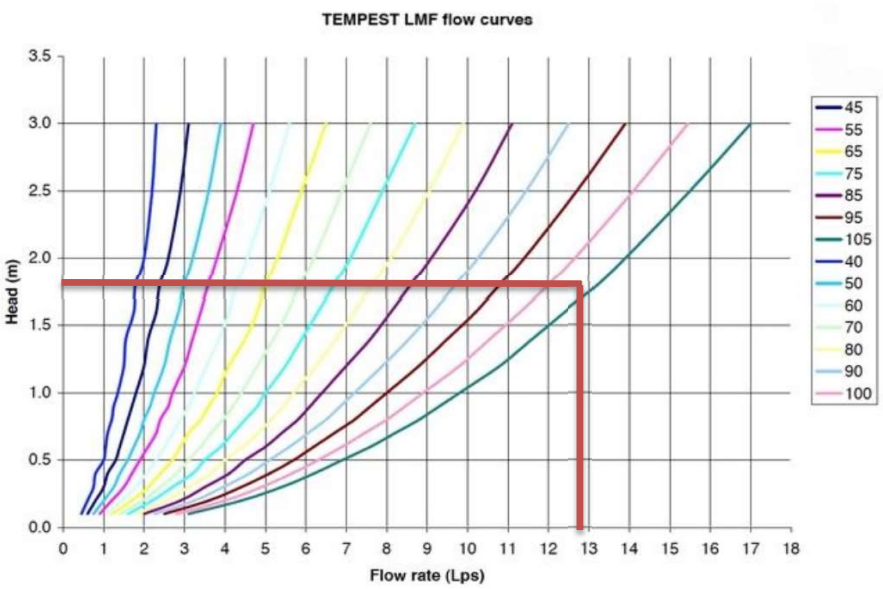
Note:
C value for the 100-year storm is increased by 25%, to a maximum of 1.0 per Ottawa Sewer Design Guidelines (5.4.5.2.1)

ICD Sizing

CB 12
Top of Lid 65.78 m
Invert 63.95 m
Depth 1.83 m

Target Q 12.9 L/s

Design Q 12.0 L/s
Tempest LMF 100



DRAWINGS / FIGURES

1186-1194 WELLINGTON ST W

11330-65 AVE NW, 1186-1194 Wellington St W
Ottawa, ON K1Y 2Z5

ARTIST RENDERING DO NOT USE FOR REFERENCE

ARCHITECTURAL DRAWING LIST	
SHEET NUMBER	**SHEET NAME**
SP03	SITE PLAN, CONTEXT PLAN, STATISTICS
SP04	P3-P1, GROUND FLOOR PLANS
SP05	LEVEL 2-6 FLOOR PLANS
SP06	LEVEL 7-16 FLOOR PLANS
SP07	BUILDING ELEVATIONS
SP08	BUILDING SECTIONS
SP10	SHADOW STUDY - JUNE
SP11	SHADOW STUDY - MARCH/SEPTEMBER
SP12	SHADOW STUDY - DECEMBER

SITE PLAN APPLICATION
ISSUED FOR SPA

2022-06-29

DIALOG

35 JOHN STREET #500 TORONTO, ON. M5V 3G6
416-966-0220

6/29/2022 12:16:54 PM

SITE PLAN APPLICATION
ISSUED FOR SPA
2022-06-29

1186-1194 WELLINGTON ST W
11330-65 AVE NW, 1186-1194 Wellington St W
Ottawa, ON K1Y 2Z5

1.0 SITE AREA

Overall Site Area

	acres	sq.m.	sq.ft.
Site Area	**0.6170221**	**2,497**	**26,877**

2.0 GROSS FLOOR AREAS (GFA)

Buildings GFA

	GFA	No. of Levels	sq.m.	sq.ft.
Level Ground (retail)	1,132.0	1	1,132.0	12,185
Level 2	1,298.0	1	1,298.0	13,972
Level 3-4	1,325.0	2	2,650.0	28,524
Level 5	1,130.0	1	1,130.0	12,163
Level 6	1,154.0	1	1,154.0	12,422
Level 7	489.0	1	489.0	5,264
Level 8-16	625.0	9	5,625.0	60,547
Total Proposed GFA		**16**	**13,478.0**	**145,076**

3.0 FLOOR SPACE INDEX (FSI)

Total Proposed GFA / Site Area	**5.40**

4.0 GROSS SALEABLE AREAS (GSA)

Buildings GSA

	GSA	No. of Levels	sq.m.	sq.ft.
Level Ground (retail)	1,163.0	1	1,163.0	12,518
Level 2	1,328.0	1	1,328.0	14,294
Level 3-4	1,358.0	2	2,716.0	29,235
Level 5	1,162.0	1	1,162.0	12,508
Level 6	1,185.0	1	1,185.0	12,755
Level 7	502.0	1	502.0	5,403
Level 8-16	645.0	9	5,805.0	62,484
Total Proposed GSA		**16**	**13,861.0**	**149,199**

5.0 GROSS BUILDING AREAS (GBA)

Buildings GBA

	GBA	No. of Levels	sq.m.	sq.ft.
Level Ground	1,985.0	1	1,985.0	21,366
Level 2	1,443.0	1	1,443.0	15,532
Level 3-4	1,472.0	2	2,944.0	31,689
Level 5	1,265.0	1	1,265.0	13,832
Level 6	1,309.0	1	1,309.0	14,090
Level 7	710.0	1	710.0	7,642
Level 8-16	714.0	9	6,426.0	69,169
Mech PH	480.0	1	480.0	5,167
Total Proposed GBA		**17**	**16,582.0**	**178,487**

6.0 GROSS CONSTRUCTION AREAS (GCA)

Buildings GCA

	GCA	No. of Levels	sq.m.	sq.ft.
Level P3	1510.0	1	1,510.0	16,254
Level P2	2250.0	1	2,250.0	24,219
Level P1	2250.0	1	2,250.0	24,219
Level Ground	1,960.0	1	1,960.0	21,097
Level 2	1,964.0	1	1,964.0	21,140
Level 3-4	1,540.0	2	3,080.0	33,153
Level 5	1,540.0	1	1,540.0	16,576
Level 6	1,386.0	1	1,386.0	14,919
Level 7	1,359.0	1	1,359.0	14,628
Level 8-16	775.0	9	6,975.0	75,078
Mech PH	480.0	1	480.0	5,167
Total Proposed GCA		**20**	**24,754.0**	**266,450**

7.0 NO. OF RESIDENTIAL UNITS

Residential Units

	Units / Floor	Levels	Units
Level Ground (retail)	0	1	0
Level 2	20	1	20
Level 3-4	20	2	40
Level 5	17	1	17
Level 6	18	1	18
Level 7	9	1	9
Level 8-16	12	9	108
Total No. of Units		**16**	**212**

8.0 AMENITY

Total Amenity Required

	Total
6 sq.m. per dwelling unit	**1,272 sq.m.**

Communal Amenity Required

	Total
50% of total amenity	**636 sq.m.**

Private Amenity Required

	Total
(Private balconies, terraces, patios)	**636 sq.m.**

Indoor Communal Amenity Provided

	Total
Level 1	110 sq.m.
Level 7	127 sq.m.

Outdoor Communal Amenity Provided

	Total
Level 7	560 sq.m.

Total Communal Amenity Provided

	Total
	797 sq.m.

Total Private Amenity Provided

	Total
(Private balconies, terraces, patios)	**>636 sq.m.**

Total Amenity Provided

	Total
Total Communal + Total Private	**>1,433 sq.m.**

9.0 PARKING

Parking Required

Residential	**0.5** per dwelling unit after first 12 units, minus 10 percent if all located below gra	**90**
Visitor	0.1 per dwelling unit after first 12 units	**20**
Retail	1.25 per 100 m2 of GFA	**15**
Total Parking Required		**125**

Parking Proposed

Residential	**0.6** per dwelling unit after first 12 units	**100**
Visitor	0.1 per dwelling unit after first 12 units	**20**
Retail	0 per 100 m2 of GFA	**0**
Total Parking Proposed		**120**

Parking Provided	Residential	Visitor	Retail	
Level P3	37			
Level P2	60			
Level P1	21	20	0	
Total Parking Provided	**118**	**20**	**0**	**138**

10.0 BICYCLE PARKING

Total Residential Bicycle Spaces Required

	Total
0.5. per dwelling unit	**106**

Total Retail Bicycle Spaces Required

	Total
1 per 250 sq.m. of gross floor area	**5**

Total Residential Bicycle Spaces Provided

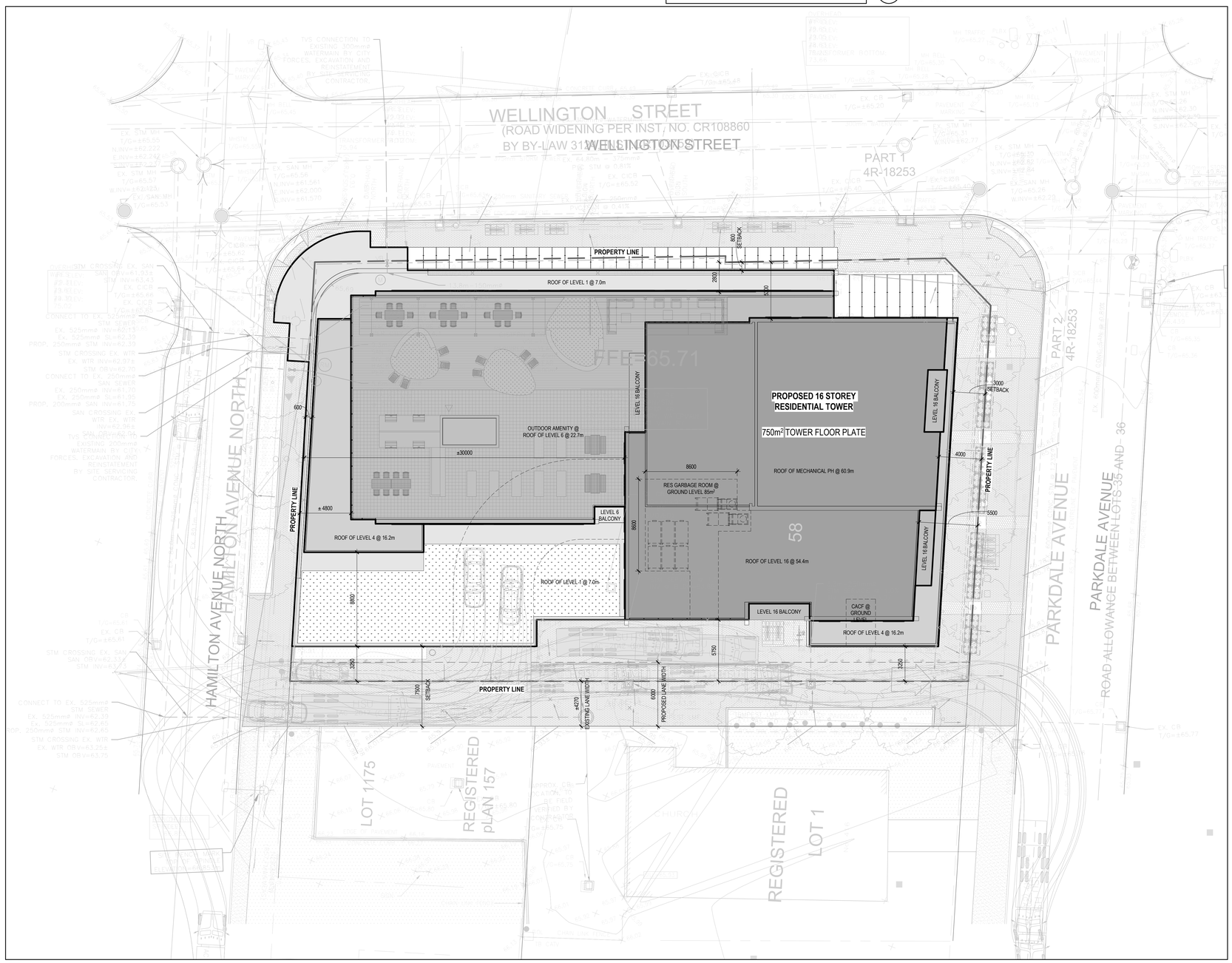
	Total
Level P3	**74**
Level P2	**90**
Level P1	**15**
Level 1	**33**
Total	**212** (1.0 per unit)

Total Retail Bicycle Spaces Provided

	Total
P1	**5**

SURVEY CREDIT:
SURVEY COMPLETED BY STANTEC GEOMATICS LTD.
DATED APRIL 26, 2021
PART OF LOTS A, B, C & D
REGISTERED PLAN 58
PROJECT NO. - 161614215-111

2 SP03 Context Plan
SCALE: 1 : 2000



1 SP03 SITE PLAN
SCALE: 1 : 150

DIALOG

ISSUED FOR

1	2021-06-25	ISSUED FOR OPA/ZBLA
2	2021-11-25	RE-ISSUED FOR OPA/ZBLA
3	2022-06-29	ISSUED FOR SPA

METRIC

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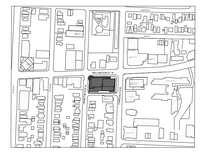
KEYPLAN



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LICENCE
4940

PROJECT NORTH

1186-1194 WELLINGTON ST W

1186-1194 Wellington St W
Ottawa, ON K1Y 2Z5

SITE PLAN, CONTEXT PLAN, STATISTICS

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PLOT DATE: 6/29/2022 3:19:36 PM

SP03

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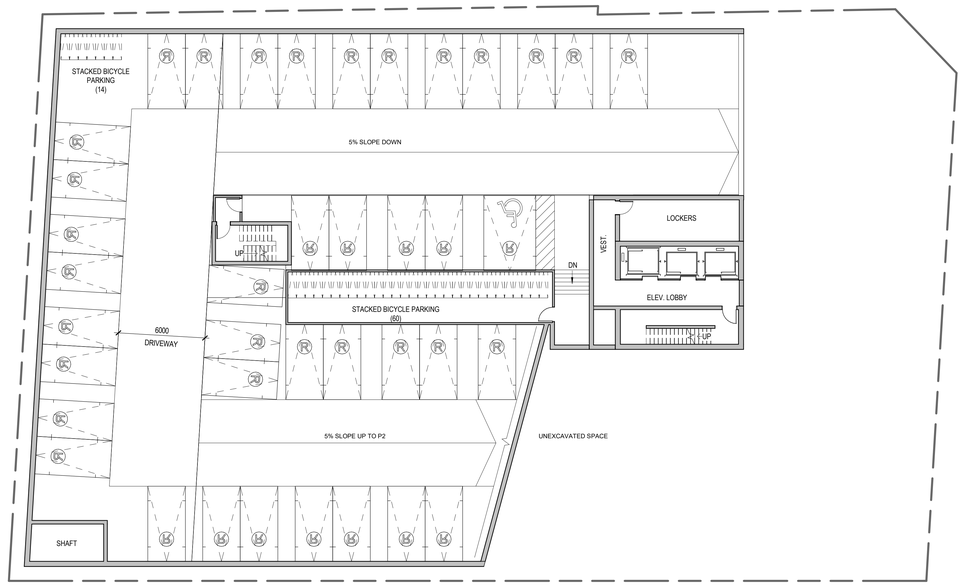

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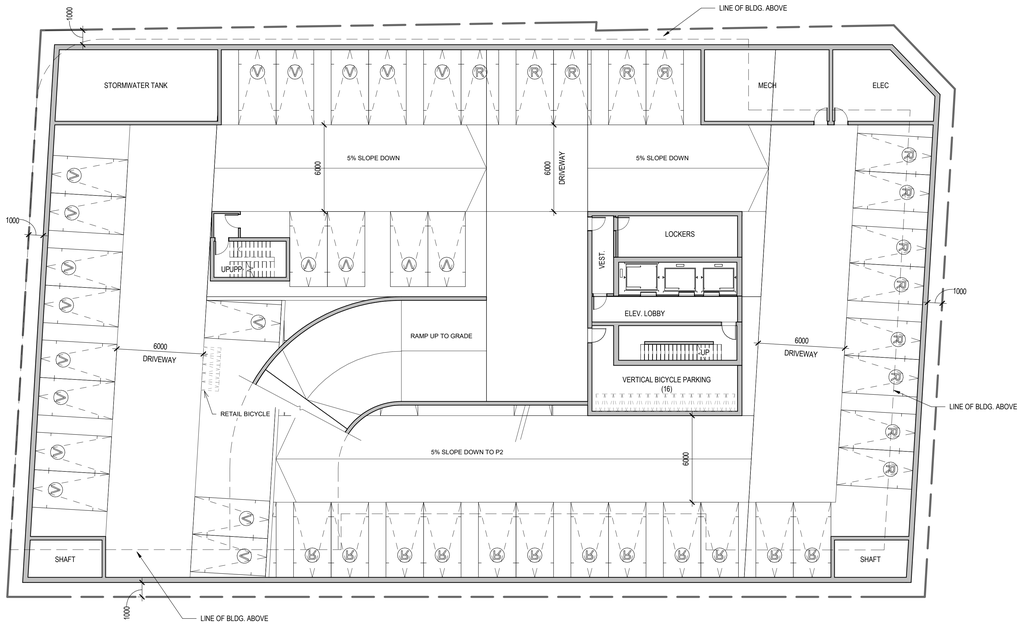
SCALE: 1 : 150



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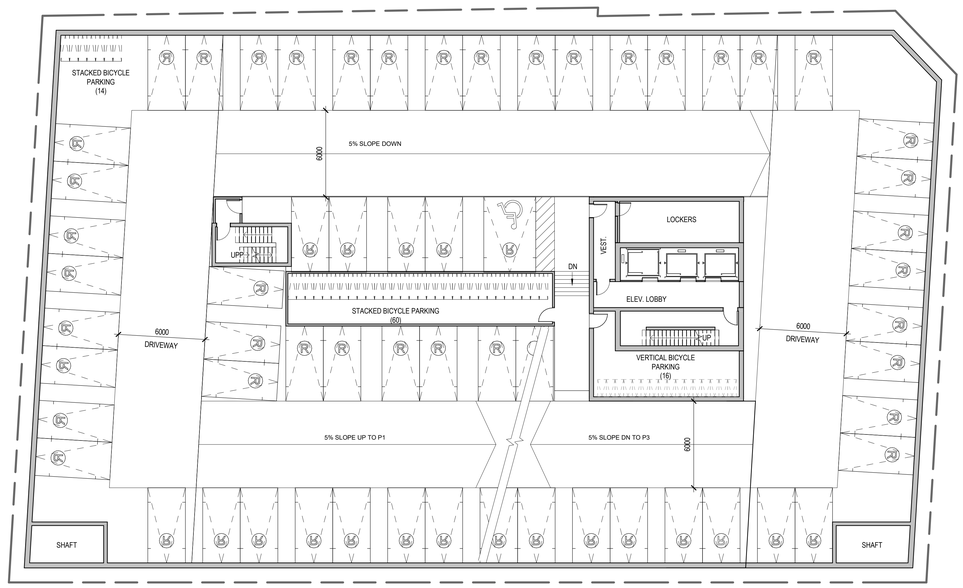

3 SP04 LEVEL P2
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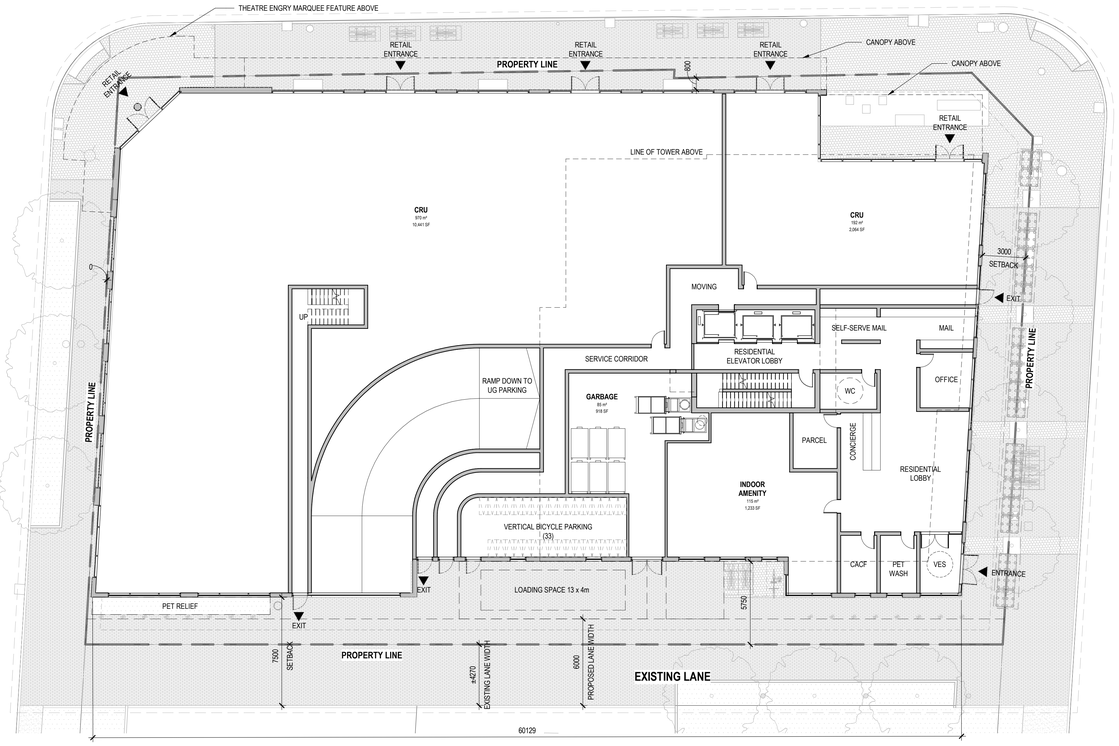

1 SP04 GROUND FLOOR PLAN
SCALE: 1 : 150

DIALOG®

ISSUED FOR

1	2021-06-25	ISSUED FOR OPA/ZBLA
2	2021-11-25	RE-ISSUED FOR OPA/ZBLA
3	2022-06-29	ISSUED FOR SPA

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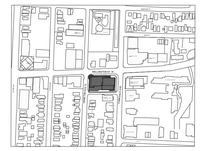
Tel: 613-836-0934

KEYPLAN



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PROJECT NORTH
TRUE NORTH

1186-1194 WELLINGTON ST W

1186-1194 Wellington St W
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P3-P1, GROUND FLOOR PLANS

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PLOT DATE: 6/29/2022 3:19:37 PM

SP04

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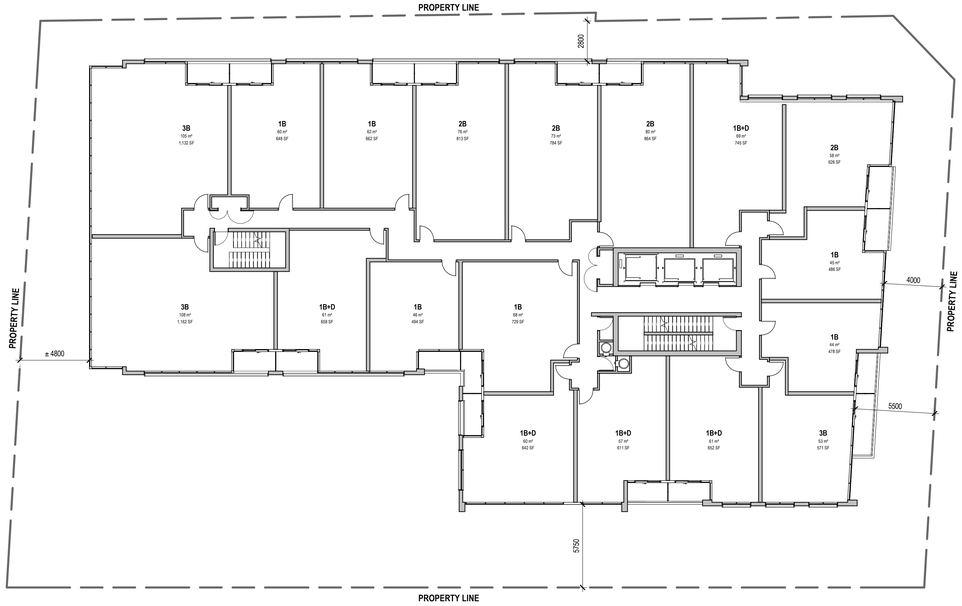

3 / SP05 LEVEL 6
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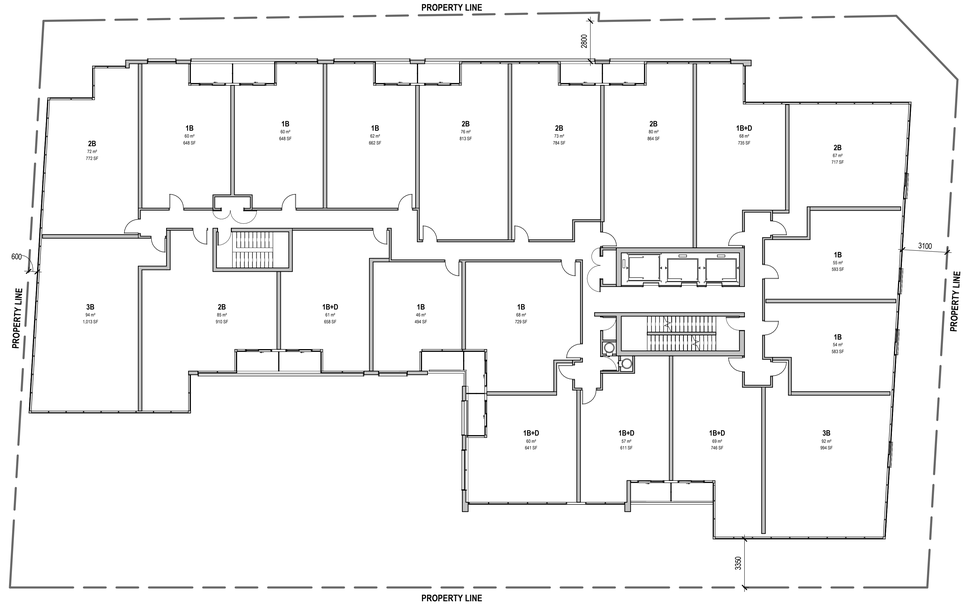

2 / SP05 LEVEL 3-4 PLAN
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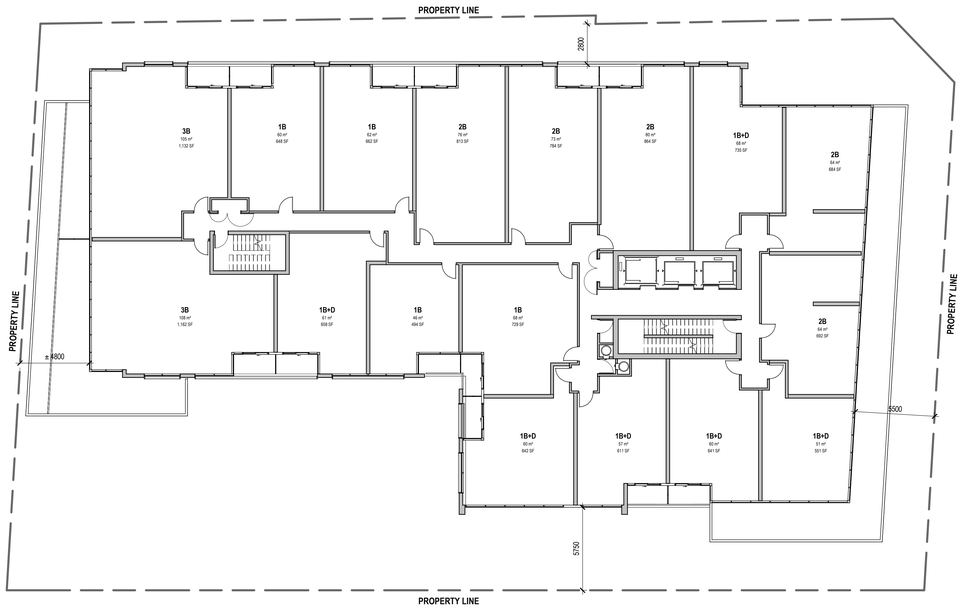

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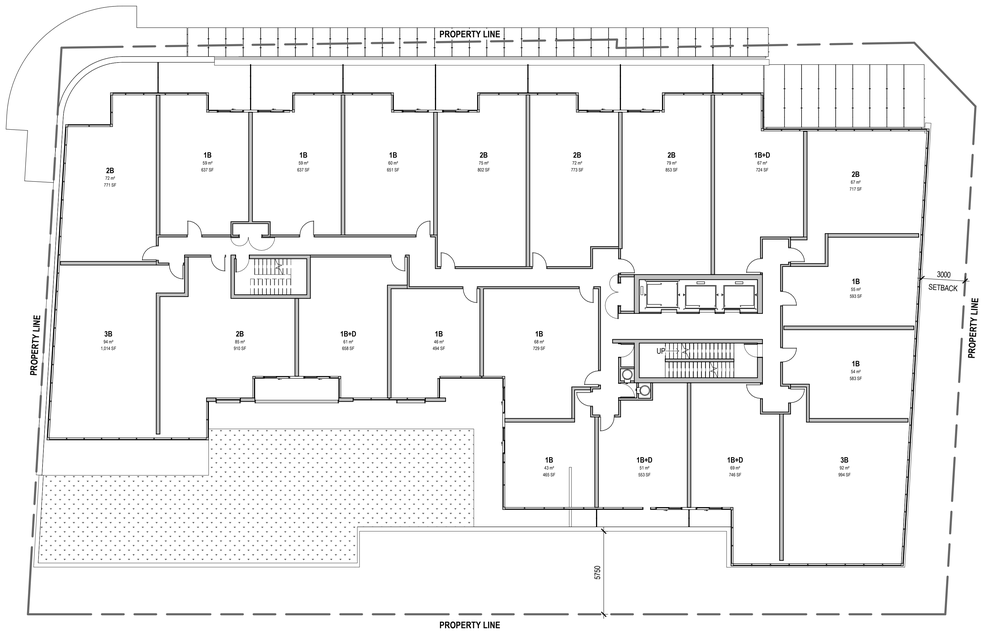

1 / SP05 LEVEL 2 PLAN
SCALE: 1 : 150

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1	2021-06-25	ISSUED FOR OPA/ZBLA
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3	2022-06-29	ISSUED FOR SPA

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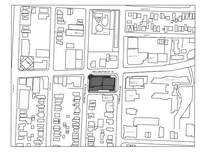
KEYPLAN



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LEVEL 2-6 FLOOR PLANS

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SP05

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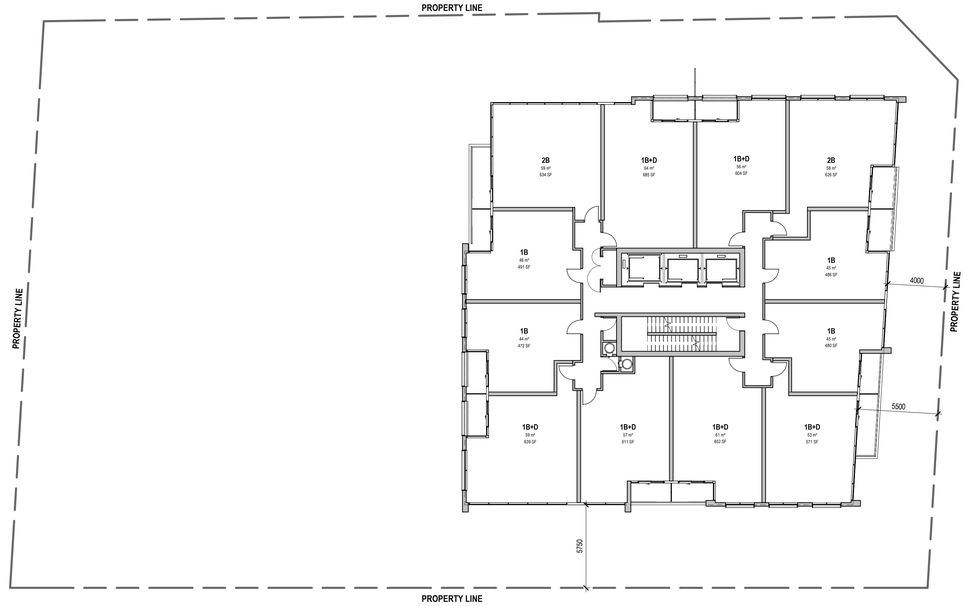
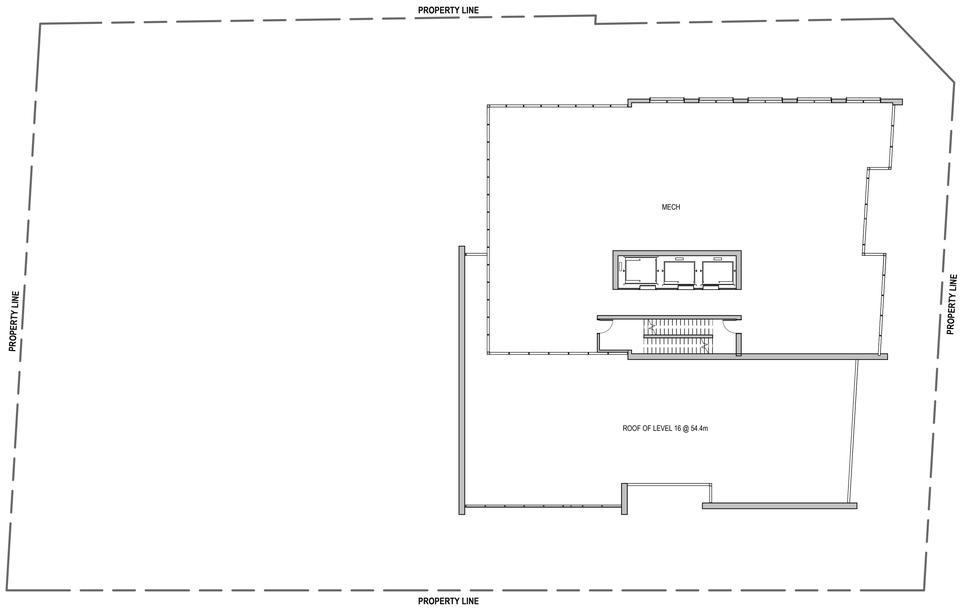


1 SP06 LEVEL 8-16 TYPICAL PLAN

SCALE: 1 : 150



3 SP06 MECH PH

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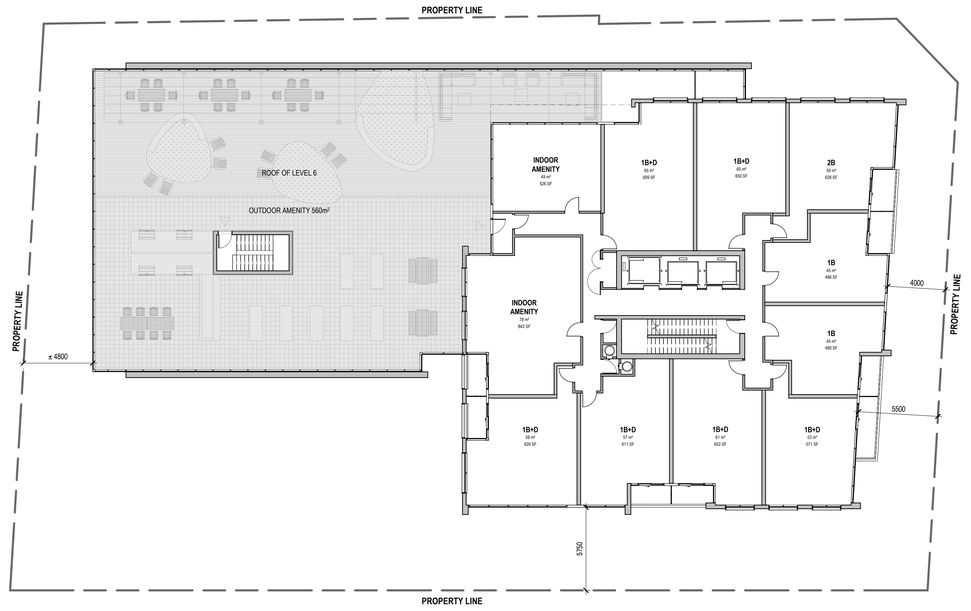

2 SP06 LEVEL 7 PLAN

SCALE: 1 : 150

DIALOG®

ISSUED FOR

1	2021-06-25	ISSUED FOR OPA/ZBLA
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KEYPLAN

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PROJECT NORTH
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LEVEL 7-16 FLOOR PLANS

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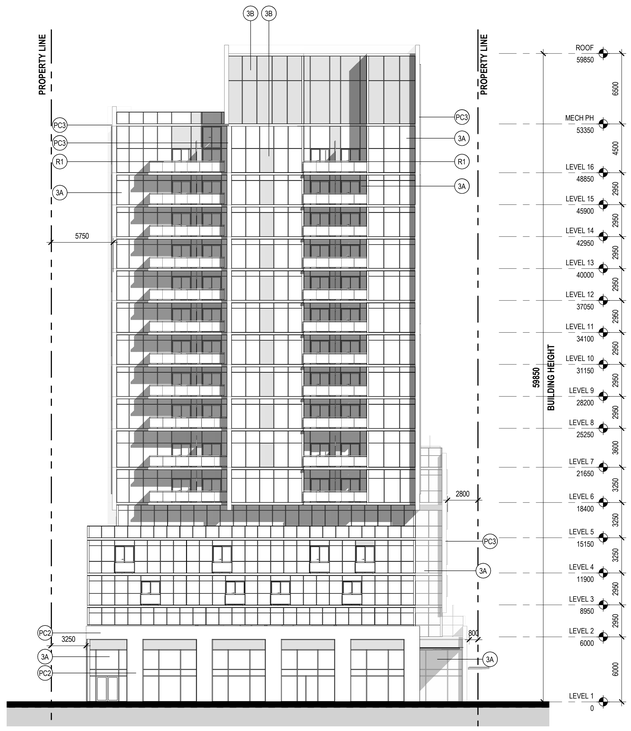
SP06

ABXXXXXX - 2002323

LEGENDS

- PC1 ARCHITECTURAL MASONRY PANEL
- PC2 ARCHITECTURAL MASONRY PANEL
- PC3 ARCHITECTURAL MASONRY PANEL
- 3A DOUBLE GLAZED VISION WINDOW WALL PANEL
- 3B SPANDREL GLASS WINDOW WALL PANEL
- R1 BALCONY RAILING
- MW PREFINISHED METAL WINDOW FRAME - BRONZE COLOUR



4 SP07 EAST ELEVATION
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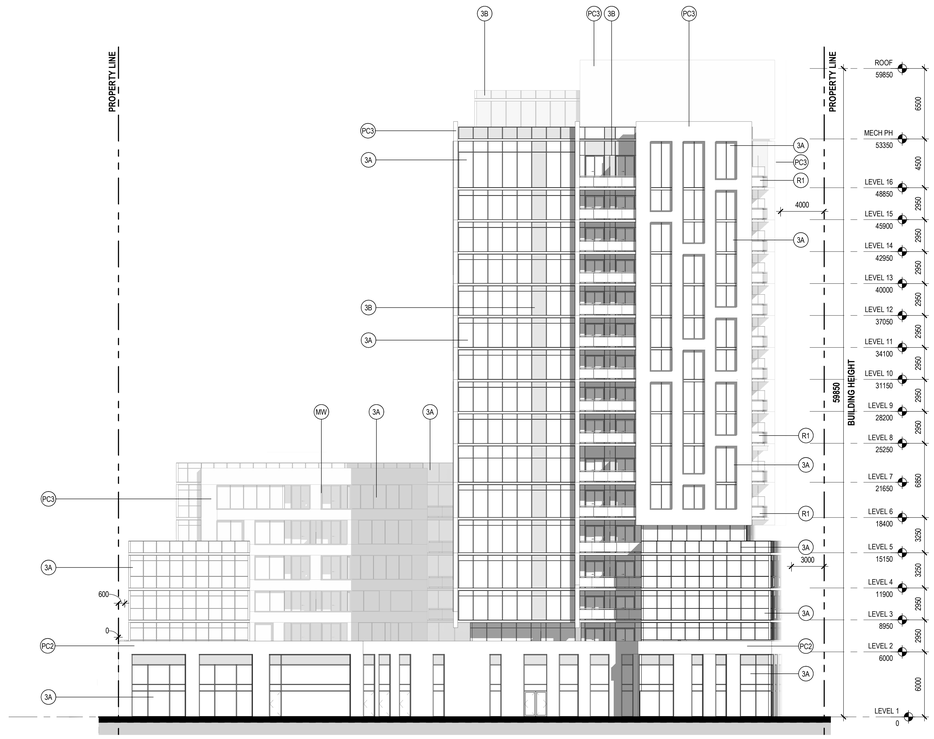
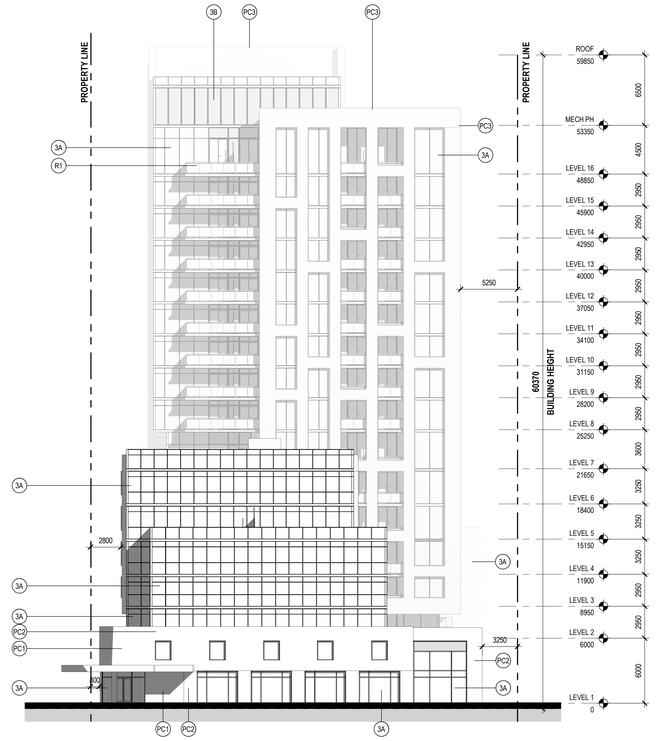
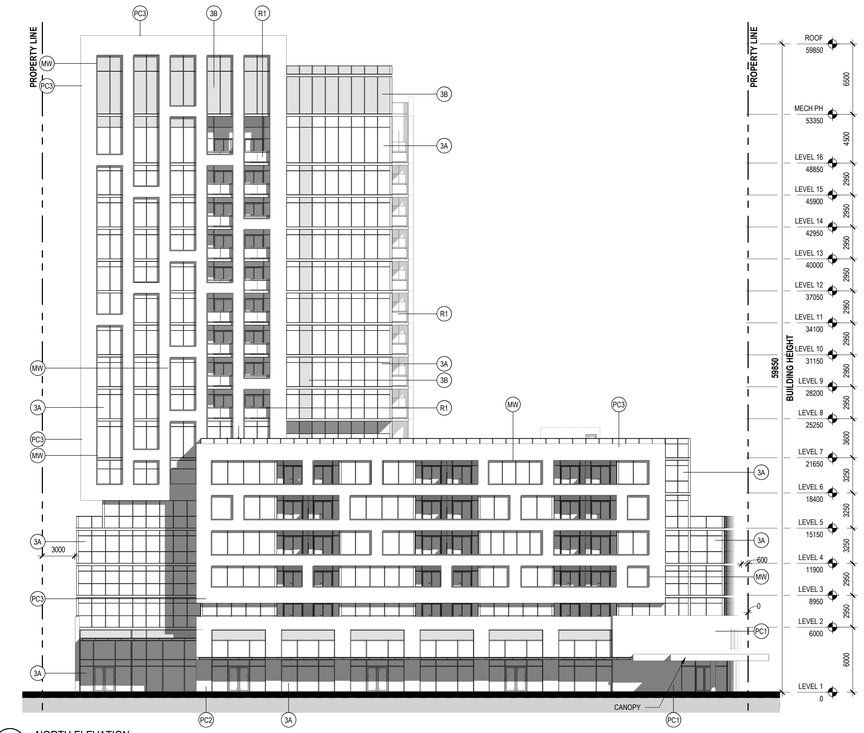


2 SP07 SOUTH ELEVATION
SCALE: 1 : 200



3 SP07 WEST ELEVATION
SCALE: 1 : 200



1 SP07 NORTH ELEVATION
SCALE: 1 : 200

DIALOG

ISSUED FOR

1	2021-06-25	ISSUED FOR OPA/ZBLA
2	2021-11-25	RE-ISSUED FOR OPA/ZBLA
3	2022-06-29	ISSUED FOR SPA

CLIENT
WELLDALE LIMITED PARTNERSHIP
200-180 KENT STREET
OTTAWA, ON. K1P 0B6
Tel: 613-230-7051

ARCHITECT
DIALOG
35 JOHN STREET #500
TORONTO, ON. M5V 3G6
Tel: 416-966-0220

URBAN PLANNER
FOTENN
396 COOPER ST. SUITE 300
OTTAWA, ON. K2P 2H7
Tel: 613-730-5709

LANDSCAPE ARCHITECT
DIALOG
35 JOHN STREET #500
TORONTO, ON. M5V 3G6
Tel: 416-966-0220

ENVIRONMENTAL/GEOTECHNICAL
TERRAPEX ENVIRONMENTAL
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CIVIL ENGINEER
DSEL
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Tel: 613-722-4420

NOISE/WIND CONSULTANT
GRADIENT WIND
127 WALGREEN ROAD
OTTAWA, ON. K0A 1L0
Tel: 613-836-0934

KEYPLAN

SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
SIMON KO
LICENCE
4640

1186-1194 WELLINGTON ST W

1186-1194 Wellington St W
Ottawa, ON K1Y 2Z5

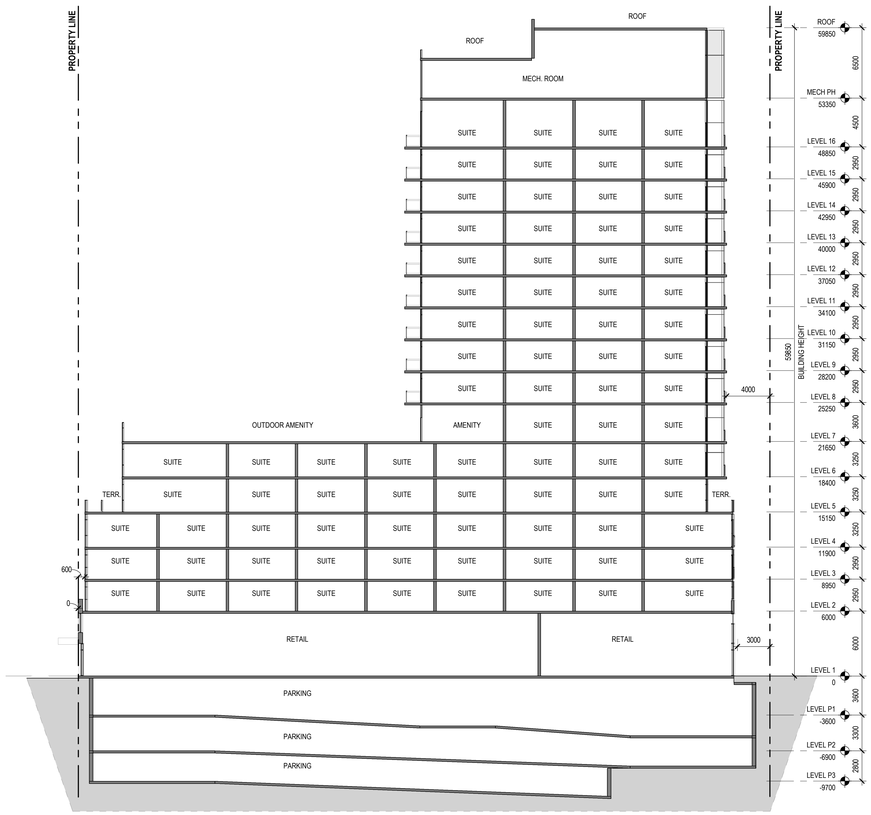
BUILDING ELEVATIONS

DRAWN: Author CHECKED: Checker
PLOT DATE: 6/29/2022 3:21:21 PM

SP07

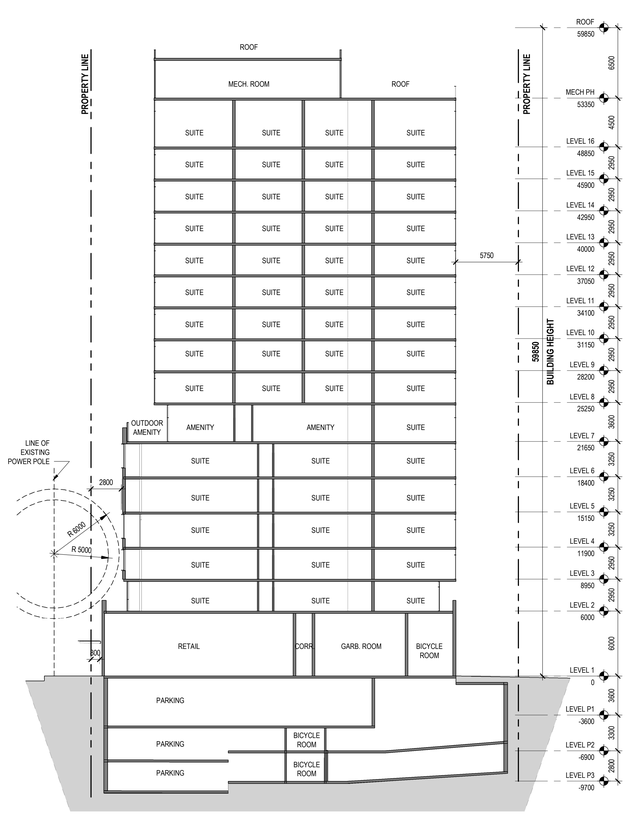
ABXXXXXX - 2002323

MIXED USE RESIDENTIAL / RETAIL BUILDING
16 STOREYS



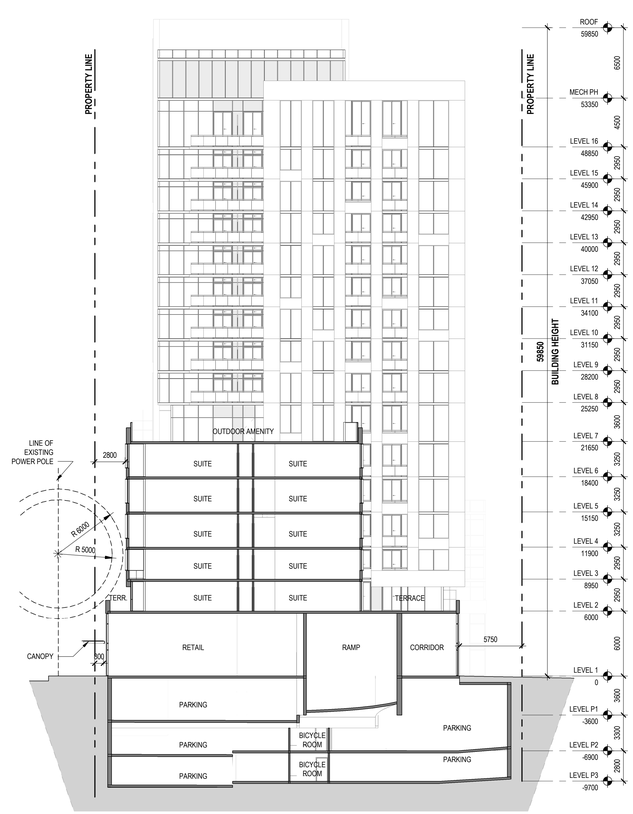
1 SP08 BUILDING SECTION A
SCALE: 1 : 200

MIXED USE RESIDENTIAL / RETAIL BUILDING
16 STOREYS



2 SP08 BUILDING SECTION B
SCALE: 1 : 200

MIXED USE RESIDENTIAL / RETAIL BUILDING
16 STOREYS



3 SP08 BUILDING SECTION C
SCALE: 1 : 200

DIALOG

ISSUED FOR

1	2021-06-25	ISSUED FOR OPA/ZBLA
2	2021-11-25	RE-ISSUED FOR OPA/ZBLA
3	2022-06-29	ISSUED FOR SPA

METRIC

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
VERIFY DIMENSIONS.
DO NOT SCALE THIS DRAWING.

REPORT INCONSISTENCIES AND OMISSIONS TO THE CONSULTANT FOR CLARIFICATION BEFORE COMMENCING WITH THE WORK.

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OTTAWA, ON. K1P 0B6
Tel: 613-230-7051

ARCHITECT
DIALOG
35 JOHN STREET #500
TORONTO, ON. M5V 3G6
Tel: 416-966-0220

URBAN PLANNER
FOTENN
396 COOPER ST. SUITE 300
OTTAWA, ON. K2P 2H7
Tel: 613-730-5709

LANDSCAPE ARCHITECT
DIALOG
35 JOHN STREET #500
TORONTO, ON. M5V 3G6
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KEYPLAN

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LICENCE
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BUILDING SECTIONS

DRAWN: Author
PLOT DATE: 6/29/2022 3:21:24 PM
CHECKED: Checker

SP08

ABXXXXXX - 2002323

JUNE 21 08:00

JUNE 21 09:00

JUNE 21 10:00

JUNE 21 11:00

JUNE 21 12:00

JUNE 21 13:00

JUNE 21 14:00

JUNE 21 15:00

JUNE 21 16:00

JUNE 21 17:00

JUNE 21 18:00

JUNE 21 19:00

JUNE 21 20:00

DIALOG®

ISSUED FOR

1 2022-06-29 ISSUED FOR SPA

METRIC

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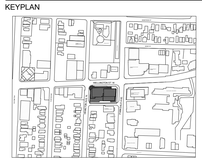

SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
SIMON KO
LICENCE
4840

PROJECT NORTH
TRUE NORTH

1186-1194 WELLINGTON ST W

1186-1194 Wellington St W
Ottawa, ON K1Y 2Z5

SHADOW STUDY - JUNE

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PLOT DATE: 6/29/2022 3:21:24 PM

SP10

ABXXXXXX - 2002323

MARCH/SEPTEMBER 21 08:00

MARCH/SEPTEMBER 21 09:00

MARCH/SEPTEMBER 21 10:00

MARCH/SEPTEMBER 21 11:00

MARCH/SEPTEMBER 21 12:00

MARCH/SEPTEMBER 21 13:00

MARCH/SEPTEMBER 21 14:00

MARCH/SEPTEMBER 21 15:00

MARCH/SEPTEMBER 21 16:00

MARCH/SEPTEMBER 21 17:00

MARCH/SEPTEMBER 21 18:00

DIALOG®

ISSUED FOR

1	2022-06-29	ISSUED FOR SPA

METRIC

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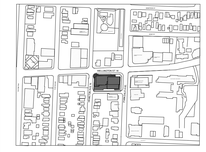

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LICENCE
4840

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TRUE NORTH

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1186-1194 Wellington St W
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SHADOW STUDY - MARCH/SEPTEMBER

DRAWN: Author CHECKED: Checker
PLOT DATE: 6/29/2022 3:21:25 PM

SP11

ABXXXXXX - 2002323

DECEMBER 21 09:00

DECEMBER 21 10:00

DECEMBER 21 11:00

DECEMBER 21 12:00

DECEMBER 21 13:00

DECEMBER 21 14:00

DECEMBER 21 15:00

DIALOG®

ISSUED FOR

1	2022-06-29	ISSUED FOR SPA

METRIC

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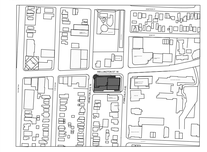
KEYPLAN



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LICENCE
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SHADOW STUDY - DECEMBER

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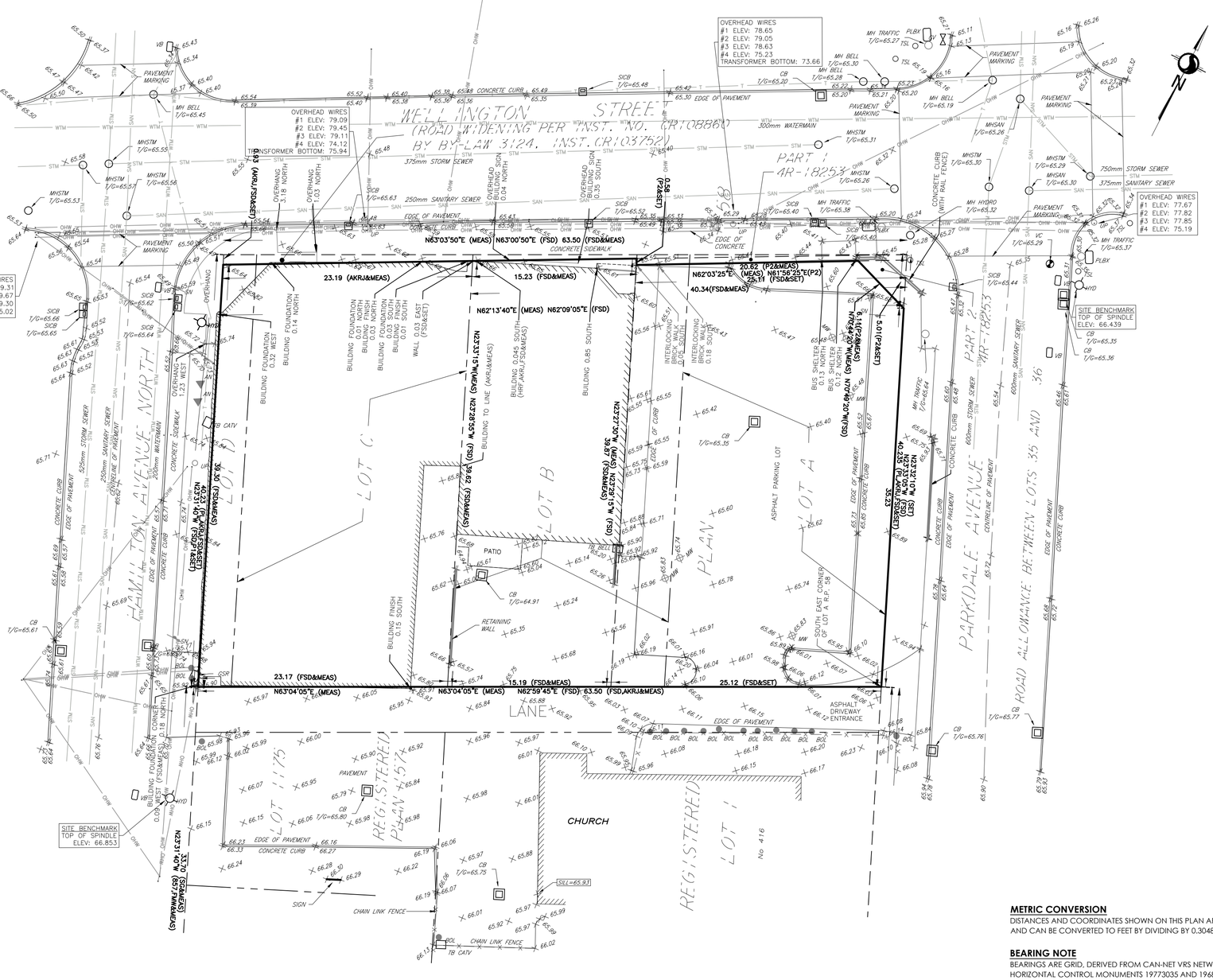
PLOT DATE: 6/29/2022 3:21:26 PM

SP12

ABXXXXXX - 2002323



Stantec

Stantec Geomatics Ltd.
400-1331 Clyde Avenue
Ottawa ON
Tel. 613.722.4420
www.stantec.com

TOPOGRAPHIC SKETCH OF

PART OF LOTS A, B, C, & D REGISTERED PLAN 58

(GEOGRAPHIC TOWNSHIP OF NEPEAN)

CITY OF OTTAWA

Scale 1:250

5 0 5 10 15 METRES

Stantec Geomatics Ltd.

BOUNDARY NOTE

BOUNDARY LINEWORK AND INFORMATION IS COMPILED FROM REGISTERED PLAN 58 AND IS NOT BASED ON ACTUAL SURVEY.

VERTICAL DATUM NOTE

ELEVATIONS SHOWN HEREON ARE GEODETIC (CGVD-1928:1978) AND ARE DERIVED FROM THE CAN-NET VRS NETWORK MONUMENT: OTTAWA ELEVATION=95.230.

UTILITY NOTE

LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE AND PER THE CITY OF OTTAWA SHEETS, AND MUST BE VERIFIED PRIOR TO CONSTRUCTION.

LEGEND

■	DENOTES	FOUND MONUMENTS
□	"	SET MONUMENTS
IB	"	IRON BAR
IBø	"	ROUND IRON BAR
SIB	"	STANDARD IRON BAR
SIB	"	SHORT STANDARD IRON BAR
CC	"	CUT CROSS
CP	"	CONCRETE PIN
WIT	"	WITNESS
PIN	"	PROPERTY IDENTIFICATION NUMBER
M/MEAS	"	MEASURED
PROP	"	PROPORTIONED
OU	"	ORIGIN UNKNOWN
STANTEC	"	STANTEC GEOMATICS LTD.
BOL	"	BOLLARD
CB	"	CATCH BASIN
SICB	"	SIDE INLET CB
GSR	"	GAS SERVICE REGULATOR
GV	"	GAS VALVE
HYD	"	FIRE HYDRANT
MH	"	MAINTENANCE HOLE UNIDENTIFIED
MHB	"	MAINTENANCE HOLE BELL
MHH	"	MAINTENANCE HOLE HYDRO
MHSA	"	MAINTENANCE HOLE SANITARY
MHST	"	MAINTENANCE HOLE STORM
MHT	"	MAINTENANCE HOLE TRAFFIC
MW	"	MONITORING WELL
PLBX	"	PULL BOX
SN	"	SIGN
TB CATV	"	TERMINAL BOX - CABLE
TSL	"	TRAFFIC SIGNAL LIGHT
UP	"	UTILITY POLE
VB	"	VALVE BOX

OVERHEAD WIRE

SANITARY SEWER

STORM SEWER

UNDERGROUND TELEPHONE

WATERMAIN

METRIC CONVERSION

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

BEARING NOTE

BEARINGS ARE GRID, DERIVED FROM CAN-NET VRS NETWORK GPS OBSERVATIONS ON NCC HORIZONTAL CONTROL MONUMENTS 19773035 AND 19680191, CENTRAL MERIDIAN, 76° 30' WEST LONGITUDE MTM ZONE 9, NAD83 (ORIGINAL).

19773035 N:5006060.42 E:324888.04
19680191 N:5033564.26 E:388064.94

ROTATION NOTE

A BEARING ROTATION OF 0°33'35" COUNTERCLOCKWISE WAS APPLIED TO FSD PLAN DATED JANUARY 14, 2002 & JULY 19, 2000.

SURVEYOR'S CERTIFICATE

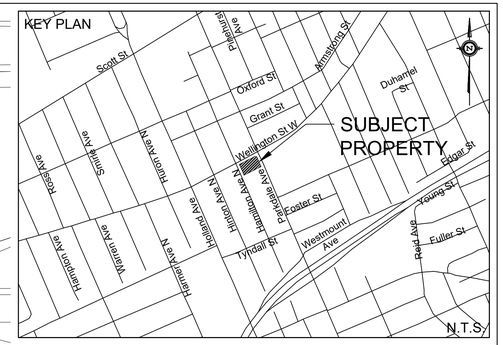
I CERTIFY THAT :

1. THE SURVEY WAS COMPLETED ON THE 26th DAY OF APRIL, 2021.

DATE

FRANCIS LAU
ONTARIO LAND SURVEYOR

DRAWN: TMT CHECKED: CT PM: CT FIELD: AW PROJECT No.: 161614215-111



LEGEND

- PROPERTY LINE
- EXISTING WATERMAIN
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING BELL
- EXISTING GAS
- EXISTING UNDERGROUND HYDRO
- EXISTING MANHOLE
- EXISTING CATCH BASIN MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING VALVE BOX
- EXISTING SPOT ELEVATION

NOT FOR CONSTRUCTION

TOPOGRAPHIC INFORMATION
TOPOGRAPHIC INFORMATION PROVIDED BY STANTEC GEOMATICS LTD.
PROJ. NO. 161614215-111
DATED APRIL 26th, 2021

SITE PLAN INFORMATION
SITE PLAN PROVIDED BY DIALOG
DATED JUNE 29th, 2022

GEOTECHNICAL STUDY
GEOTECHNICAL RECOMMENDATIONS PROVIDED BY TERRAPEX ENVIRONMENTAL LTD.
PROJ. NO. CO810.00
DATED: MAY 30th, 2022

SITE SERVICING AND STORMWATER MANAGEMENT STUDY
SERVICING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DAVID SCHAEFFER ENGINEERING LIMITED
PROJ. NO. 20-1188
DATED: JUNE 2022

BENCH MARK
BENCH MARK 1: TOP OF SPINDLE OF FIREHYDRANT IN NORTHEAST CORNER OF PROPERTY. ELEV: 66.439
BENCH MARK 2: TOP OF SPINDLE OF FIREHYDRANT IN SOUTHWEST CORNER OF PROPERTY. ELEV: 66.853

No.	BY	YY.MM.DD	DESCRIPTION
1	C.P.B.	22.06.30	1st SUBMISSION

GENERAL NOTES

1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISION OF THE STANDARDS AND SPECIFICATIONS FOR THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE. LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
2. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE SITE AND ADJACENT WORK AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
3. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTORS EXPENSE.
4. ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE CONTRACTOR'S EXPENSE.
5. RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE DEVELOPER.
6. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS." THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE "CONSTRUCTOR" AS DEFINED IN THE ACT.
7. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE MINISTRY OF TRANSPORTATION OF ONTARIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PER LATEST AMENDMENT.
8. THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES TO PREVENT CONFLICTS.
9. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
10. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE ENGINEER.
11. ALL CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT.
12. ALL CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SITE SERVICING AND STORMWATER MANAGEMENT REPORT.
13. ALL SEWERS CONSTRUCTED WITH GRADES LESS THAN 1.0% SHALL BE INSTALLED USING LASER ALIGNMENT AND CHECKED WITH LEVEL INSTRUMENT PRIOR TO BACKFILLING.
14. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND TO BEAR THE COST OF THE SAME.
15. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING, OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH AS SPECIFIED BY OPSD IS EXCEEDED.
16. ALL PIPE / CULVERT SECTION SIZES REFER TO INSIDE DIMENSIONS.
17. SHOULD BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES, THE HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE MUST BE NOTIFIED IMMEDIATELY.
18. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING / REMOVAL.
19. DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL SITE PLAN.
20. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ONE SET OF AS CONSTRUCTED SITE SERVICING AND GRADING DRAWINGS.
21. BENCHMARKS: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SITE BENCHMARK(S) HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION DEPICTED ON THIS PLAN.

PROJECT No.20-1188

L. A. COULSON
100227244
2022-06-30
PROVINCE OF ONTARIO

REVIEWED BY

EXISTING CONDITIONS PLAN
1186-1188 WELLINGTON ST WEST

WELLDALE LIMITED PARTNERSHIP

200-180 KENT STREET
OTTAWA, ON, K1P 0B6

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DRAWN BY:	G.G.G.	CHECKED BY:	S.L.M.	DRAWING NO.	SHEET NO.
DESIGNED BY:	G.G.G.	CHECKED BY:	D.J.H.	EX-1	1 of 6
SCALE:	1:200	DATE:	JUNE 2022		

CITY FILE No.: D07-12-XX-XXXX CITY PLAN No.: XXXXX

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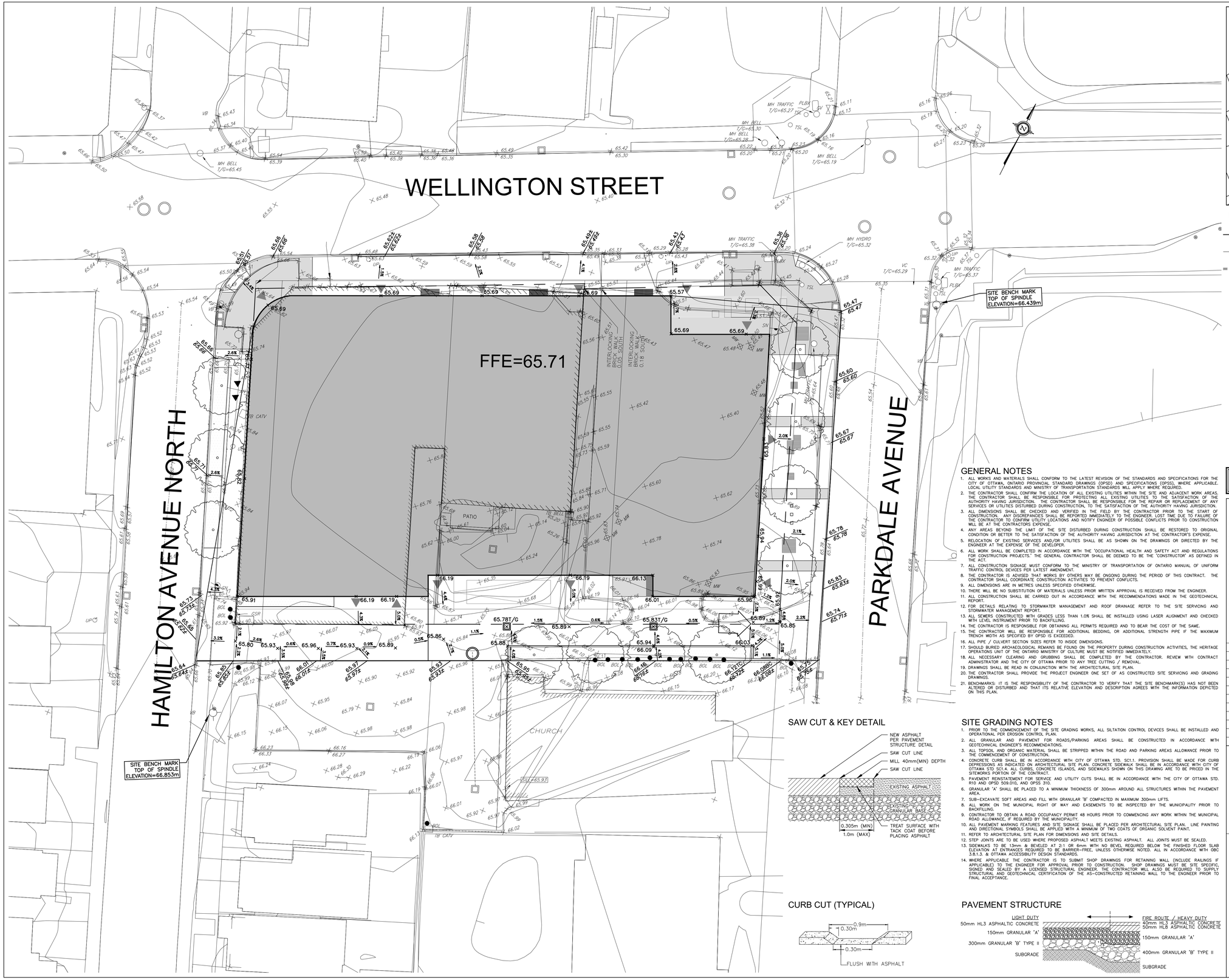

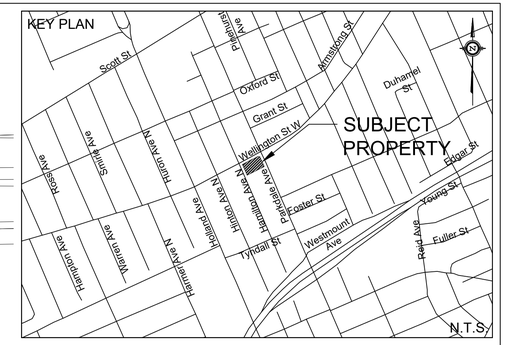

LEGEND

- PROPERTY LINE
- PROPOSED SWALE
- PROPOSED PERFORATED SUBDRAIN
- 100.00 EXISTING SPOT ELEVATION
- 100.00 PROPOSED SPOT ELEVATION
- 100.00T/C PROPOSED TOP OF CURB ELEVATION
- 100.00B/W PROPOSED BOTTOM OF WALL ELEVATION
- 100.00T/W PROPOSED TOP OF WALL ELEVATION
- 100.00T/L PROPOSED TOP OF LID ELEVATION
- 1.0% EXISTING GRADE AND DIRECTION
- 1.0% PROPOSED GRADE AND DIRECTION
- 3:1 SLOPE PROPOSED 3:1 TERRACING
- 100.00 / 100.00 PROPOSED/EXISTING SPOT ELEVATION
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED CB "I"
- PROPOSED FIRE HYDRANT
- EMERGENCY FLOW ROUTE
- SURFACE PONDING AREA
  - MAX PONDING
  - INTERMEDIATE PONDING

GENERAL NOTES

1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISION OF THE STANDARDS AND SPECIFICATIONS FOR THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE, LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
2. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE SITE AND ADJACENT WORK AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
3. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTORS EXPENSE.
4. ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE CONTRACTOR'S EXPENSE.
5. RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE DEVELOPER.
6. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS." THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE "CONSTRUCTOR" AS DEFINED IN THE ACT.
7. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE MINISTRY OF TRANSPORTATION OF ONTARIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PER LATEST AMENDMENT.
8. THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES TO PREVENT CONFLICTS.
9. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
10. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE ENGINEER.
11. ALL CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT.
12. FOR DETAILS RELATING TO STORMWATER MANAGEMENT AND ROOF DRAINAGE REFER TO THE SITE SERVICING AND STORMWATER MANAGEMENT REPORT.
13. ALL SEWERS CONSTRUCTED WITH GRADES LESS THAN 1.0% SHALL BE INSTALLED USING LASER ALIGNMENT AND CHECKED WITH LEVEL INSTRUMENT PRIOR TO BACKFILLING.
14. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND TO BEAR THE COST OF THE SAME.
15. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING, OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH AS SPECIFIED BY OPSD IS EXCEEDED.
16. ALL PIPE / CULVERT SECTION SIZES REFER TO INSIDE DIMENSIONS.
17. SHOULD BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES, THE HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE MUST BE NOTIFIED IMMEDIATELY.
18. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING / REMOVAL.
19. DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL SITE PLAN.
20. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ONE SET OF AS CONSTRUCTED SITE SERVICING AND GRADING DRAWINGS.
21. BENCHMARKS: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SITE BENCHMARK(S) HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION DEPICTED ON THIS PLAN.

SAW CUT & KEY DETAIL

CURB CUT (TYPICAL)

SITE GRADING NOTES

1. PRIOR TO THE COMMENCEMENT OF THE SITE GRADING WORKS, ALL SILTATION CONTROL DEVICES SHALL BE INSTALLED AND OPERATIONAL PER EROSION CONTROL PLAN.
2. ALL GRANULAR AND PAVEMENT FOR ROADS/PARKING AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
3. ALL TOPSOIL AND ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE ROAD AND PARKING AREAS ALLOWANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
4. CONCRETE CURB SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SC1.1. PROVISION SHALL BE MADE FOR CURB DEPRESSIONS AS INDICATED ON ARCHITECTURAL SITE PLAN. CONCRETE SIDEWALK SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD SC1.4. ALL CURBS, CONCRETE ISLANDS, AND SIDEWALKS SHOWN ON THIS DRAWING ARE TO BE PRICED IN THE SITEWORKS PORTION OF THE CONTRACT.
5. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STD. R10 AND OPSD 509.010, AND OPSS 310.
6. GRANULAR 'A' SHALL BE PLACED TO A MINIMUM THICKNESS OF 300mm AROUND ALL STRUCTURES WITHIN THE PAVEMENT AREA.
7. SUB-EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'B' COMPACTED IN MAXIMUM 300mm LIFTS.
8. ALL WORK ON THE MUNICIPAL RIGHT OF WAY AND EASEMENTS TO BE INSPECTED BY THE MUNICIPALITY PRIOR TO BACKFILLING.
9. CONTRACTOR TO OBTAIN A ROAD OCCUPANCY PERMIT 48 HOURS PRIOR TO COMMENCING ANY WORK WITHIN THE MUNICIPAL ROAD ALLOWANCE, IF REQUIRED BY THE MUNICIPALITY.
10. ALL PAVEMENT MARKING FEATURES AND SITE SIGNAGE SHALL BE PLACED PER ARCHITECTURAL SITE PLAN. LINE PAINTING AND DIRECTIONAL SYMBOLS SHALL BE APPLIED WITH A MINIMUM OF TWO COATS OF ORGANIC SOLVENT PAINT.
11. REFER TO ARCHITECTURAL SITE PLAN FOR DIMENSIONS AND SITE DETAILS.
12. STEP JOINTS ARE TO BE USED WHERE PROPOSED ASPHALT MEETS EXISTING ASPHALT. ALL JOINTS MUST BE SEALED.
13. SIDEWALKS TO BE 13mm & BEVELED AT 2:1 OR 6mm WITH NO BEVEL REQUIRED BELOW THE FINISHED FLOOR SLAB ELEVATION AT ENTRANCES REQUIRED TO BE BARRIER-FREE, UNLESS OTHERWISE NOTED. ALL IN ACCORDANCE WITH OBC 3.8.1.3. & OTTAWA ACCESSIBILITY DESIGN STANDARDS.
14. WHERE APPLICABLE THE CONTRACTOR IS TO SUBMIT SHOP DRAWINGS FOR RETAINING WALL (INCLUDE RAILINGS IF APPLICABLE) TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. SHOP DRAWINGS MUST BE SITE SPECIFIC, SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER. THE CONTRACTOR WILL ALSO BE REQUIRED TO SUPPLY STRUCTURAL AND GEOTECHNICAL CERTIFICIATION OF THE AS-CONSTRUCTED RETAINING WALL TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE.

PAVEMENT STRUCTURE

NOT FOR CONSTRUCTION

TOPOGRAPHIC INFORMATION

TOPOGRAPHIC INFORMATION PROVIDED BY STANTEC GEOMATICS LTD.
PROJ. NO. 161614215-111
DATED APRIL 26th, 2021

SITE PLAN INFORMATION

SITE PLAN PROVIDED BY DIALOG
DATED JUNE 29th, 2022

GEOTECHNICAL STUDY

GEOTECHNICAL RECOMMENDATIONS PROVIDED BY TERRAPEX ENVIRONMENTAL LTD.
PROJ. NO. CO810.00
DATED: MAY 30th, 2022

SITE SERVICING AND STORMWATER MANAGEMENT STUDY

SERVICING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DAVID SCHAEFFER ENGINEERING LIMITED
PROJ. NO. 20-1188
DATED: JUNE 2022

BENCH MARK

BENCH MARK 1: TOP OF SPINDLE OF FIREHYDRANT IN NORTHEAST CORNER OF PROPERTY, ELEV: 66.439
BENCH MARK 2: TOP OF SPINDLE OF FIREHYDRANT IN SOUTHWEST CORNER OF PROPERTY, ELEV: 66.853

No.	BY	YY.MM.DD	DESCRIPTION
1	C.P.B.	22.06.30	1st SUBMISSION

PROJECT No.20-1188

LICENSED PROFESSIONAL ENGINEER
L. A. COULSON
100227244
2022-06-30
PROVINCE OF ONTARIO

REVIEWED BY

GRADING PLAN
1186-1188 WELLINGTON ST WEST

WELLDALE LIMITED PARTNERSHIP

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DRAWN BY:	G.G.G.	CHECKED BY:	S.L.M.	DRAWING NO.	SHEET NO.
DESIGNED BY:	G.G.G.	CHECKED BY:	D.J.H.	GP-1	2 of 6
SCALE:	1:200	DATE:	JUNE 2022		

CITY FILE No.: D07-12-XX-XXXX CITY PLAN No.: XXXXX

LEGEND

- PROPERTY LINE
- PROPOSED WATERMAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED PERFORATED SUBDRAIN
- VB PROPOSED VALVE BOX
- CS PROPOSED CURB STOP
- PROPOSED FIRE HYDRANT
- PROPOSED SIAMESE CONNECTION
- RM PROPOSED REMOTE WATER METER
- M PROPOSED WATER METER
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED CB 'I'

EXISTING UNDERGROUND SERVICES AND UTILITY LOCATIONS DERIVED FROM THE BEST AVAILABLE DATA, AS-CONSTRUCTED DRAWINGS, UTILITY DRAWINGS AND INFRASTRUCTURE MAPPING PROVIDED BY THE CITY OF OTTAWA.

CONTRACTOR TO CONFIRM ELEVATIONS AND LOCATIONS OF EXISTING UNDERGROUND SERVICES AND UTILITIES WITHIN THE RIGHT OF WAY PRIOR TO INSTALLATION OF SITE SERVICING INFRASTRUCTURE.

THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT THE FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

NOT FOR CONSTRUCTION

TOPOGRAPHIC INFORMATION
TOPOGRAPHIC INFORMATION PROVIDED BY STANTEC GEOMATICS LTD.
PROJ. NO. 161614215–111
DATED APRIL 26th, 2021

SITE PLAN INFORMATION
SITE PLAN PROVIDED BY DIALOG
DATED JUNE 29th, 2022

GEOTECHNICAL STUDY
GEOTECHNICAL RECOMMENDATIONS PROVIDED BY TERRAPEX ENVIRONMENTAL LTD.
PROJ. NO. CO810.00
DATED: MAY 30th, 2022

SITE SERVICING AND STORMWATER MANAGEMENT STUDY
SERVICING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DAVID SCHAEFFER ENGINEERING LIMITED
PROJ. NO. 20–1188
DATED: JUNE 2022

BENCH MARK
BENCH MARK 1: TOP OF SPINDLE OF FIREHYDRANT IN NORTHEAST CORNER OF PROPERTY. ELEV: 66.439
BENCH MARK 2: TOP OF SPINDLE OF FIREHYDRANT IN SOUTHWEST CORNER OF PROPERTY. ELEV: 66.853

No.	BY	YY.MM.DD	DESCRIPTION
1	C.P.B.	22.06.30	1st SUBMISSION

PROJECT No.20-1188

L. A. COULSON
100227244
2022-06-30
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

REVIEWED BY

GENERAL NOTES

1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISION OF THE STANDARDS AND SPECIFICATIONS FOR THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE. LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
2. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE SITE AND ADJACENT WORK AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
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5. RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE DEVELOPER.
6. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS." THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE "CONSTRUCTOR" AS DEFINED IN THE ACT.
7. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE MINISTRY OF TRANSPORTATION OF ONTARIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PER LATEST AMENDMENT.
8. THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES TO PREVENT CONFLICTS.
9. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
10. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE ENGINEER.
11. ALL CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT.
12. FOR DETAILS RELATING TO STORMWATER MANAGEMENT AND ROOF DRAINAGE REFER TO THE SITE SERVICING AND STORMWATER MANAGEMENT REPORT PREPARED BY DSEL.
13. ALL SEWERS CONSTRUCTED WITH GRADES LESS THAN 1.0% SHALL BE INSTALLED USING LASER ALIGNMENT AND CHECKED WITH LEVEL INSTRUMENT PRIOR TO BACKFILLING.
14. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND TO BEAR THE COST OF THE SAME.
15. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING, OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH AS SPECIFIED BY OPSD IS EXCEEDED.
16. ALL PIPE / CULVERT SECTION SIZES REFER TO INSIDE DIMENSIONS.
17. SHOULD BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES, THE HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE MUST BE NOTIFIED IMMEDIATELY.
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WATERMAIN NOTES

1. ALL WATERMAIN INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
2. ALL PVC WATERMAINS SHALL BE AWWA C–900 CLASS 150, DR 18 OR APPROVED EQUIVALENT.
3. WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W17. UNLESS SPECIFIED OTHERWISE. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY THE PROJECT GEOTECHNICAL ENGINEER.
4. ALL PVC WATERMAINS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RWU TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STD. W.36.
5. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS PER CITY OF OTTAWA STD. W40 AND W42.
6. VALVE BOXES SHALL BE INSTALLED PER CITY OF OTTAWA STD W24.
7. WATERMAIN IN FILL AREAS TO BE INSTALLED WITH RESTRAINED JOINTS PER CITY OF OTTAWA STD.25.5 AND W25.6.
8. THRUST BLOCKING OF WATERMAINS TO BE INSTALLED PER CITY OF OTTAWA STD. W25.3 AND W25.4.
9. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS, BLOW–OFFS, AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
10. WATERMAIN CROSSING OVER AND BELOW SEWERS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W25.2 AND W25, RESPECTIVELY.
11. WATER SERVICES ARE TO BE INSULATED PER CITY STD. W23 WHERE SEPARATION BETWEEN SERVICES AND MAINTENANCE HOLES ARE LESS THAN 2.4m.
12. THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.50m PER MOE GUIDELINES. FOR CROSSING UNDER SEWERS, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING. THE LENGTH OF WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING TO ENSURE THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.
13. ALL WATERMAINS SHALL HAVE A MINIMUM COVER OR 2.4m, OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD DWG W22.
14. GENERAL WATER PLANT TO UTILITY CLEARANCE AS PER STD DWG R20
15. FIRE HYDRANT INSTALLATION AS PER STD DWG W19, ALL BOTTOM OF HYDRANT FLANGE ELEVATIONS TO BE INSTALLED 0.10m ABOVE PROPOSED FINISHED GRADE AT HYDRANT; FIRE HYDRANT LOCATION AS PER STD DWG W18 UNLESS OTHERWISE NOTED.
16. BUILDING SERVICE TO BE CAPPED 1.0m OFF THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED AND MUST BE RESTRAINED A MINIMUM OF 12m BACK FROM STUB.
17. ALL WATERMAINS SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES UNLESS OTHERWISE DIRECTED. PROVISIONS FOR FLUSHING WATER LINE PRIOR TO TESTING, ETC. MUST BE PROVIDED.
18. ALL WATERMAINS SHALL BE BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES. ALL CHLORINATED WATER TO BE DISCHARGED AND PRETREATED TO ACCEPTABLE LEVELS PRIOR TO DISCHARGE. ALL DISCHARGED WATER MUST BE CONTROLLED AND TREATED SO AS NOT TO ADVERSELY EFFECT THE ENVIRONMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MUNICIPAL AND/OR PROVINCIAL REQUIREMENTS ARE FOLLOWED.
19. ALL WATERMAIN STUBS SHALL BE TERMINATED WITH A PLUG AND 50mm BLOW OFF UNLESS OTHERWISE NOTED.

SANITARY AND STORM SEWER NOTES

GENERAL
1. LASER ALIGNMENT CONTROL TO BE UTILIZED ON ALL SEWER INSTALLATIONS.
2. CLAY SEALS TO BE INSTALLED AS PER CITY STANDARD DRAWING S8. THE SEALS SHOULD BE AT LEAST 1.5m LONG (IN THE TRENCH DIRECTION) AND SHOULD EXTEND FROM TRENCH WALL TO TRENCH WALL. THE SEALS SHOULD EXTEND FROM THE FROST LINE AND FULLY PENETRATE THE BEDDING, SUB–BEDDING, AND COVER MATERIAL. THE BARRIERS SHOULD CONSIST OF RELATIVELY DRY AND COMPACTIBLE BROWN SILTY CLAY PLACED IN MAXIMUM 225mm LIFTS AND COMPACTED TO A MINIMUM OF 95% SPMDD. THE CLAY SEALS SHOULD BE PLACED AT THE SITE BOUNDARIES AND AT 60m INTERVALS IN THE SERVICE TRENCHES.
3. SERVICES TO BUILDINGS TO BE TERMINATED 1.0m FROM THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
4. ALL MAINTENANCE STRUCTURE AND CATCH BASIN EXCAVATIONS TO BE BACKFILLED WITH GRANULAR MATERIAL COMPACTED TO 98% STANDARD PROCTOR DENSITY, A MINIMUM OF 300mm AROUND STRUCTURES.
5. "MODULOC" OR APPROVED PRE–CAST MAINTENANCE STRUCTURE AND CATCH BASIN ADJUSTERS TO BE USED IN LIEU OF BRICKING. PARGE ADJUSTING UNITS ON THE OUTSIDE ONLY.
6. SAFETY PLATFORMS SHALL BE PER OPSD 404.02.
7. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH OPSD 1003.01 AND 1003.02, IF APPLICABLE.
8. THE CONTRACTOR IS TO PROVIDE CCTV CAMERA INSPECTIONS OF ALL SEWERS, INCLUDING PICTORIAL REPORT, ONE (1) CD COPY AND TWO (2) VIDEO RECORDINGS IN A FORMAT ACCEPTABLE TO THE ENGINEER. ALL SEWERS ARE TO BE FLUSHED PRIOR TO CAMERA INSPECTION. ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS AND NECESSARY REPAIRS HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER.
9. CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE CONSULTANT, FOR SANITARY SEWERS IN ACCORDANCE WITH OPSS 410 AND OPSS 407. CONTRACTOR SHALL PERFORM VIDEO INSPECTION OF ALL SEWERS. A COPY OF THE VIDEO AND INSPECTION REPORT SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF WEAR COURSE ASPHALT.
10. FROST PROTECTION RECOMMENDATIONS FOR STORM SEWERS WITH LESS THAN 1.5m AND SANITARY SEWERS WITH LESS THAN 1.8m FROM GROUND SURFACE TO PIPE OBVERT TO BE PROVIDED BY GEOTECHNICAL ENGINEER.

SANITARY
11. ALL SANITARY SEWER INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
12. ALL SANITARY GRAVITY SEWER SHALL BE PVC SDR 35, IPEX 'RING–TITE' (OR APPROVED EQUIVALENT) PER CSA STANDARD B182.2 OR LATEST AMENDMENT, UNLESS SPECIFIED OTHERWISE.
13. EXISTING MAINTENANCE STRUCTURES TO BE RE–BENCHED WHERE A NEW CONNECTION IS MADE.
14. SANITARY GRAVITY SEWER TRENCH AND BEDDING SHALL BE PER CITY OF OTTAWA STD. S6 AND S7, CLASS 'B' BEDDING, UNLESS SPECIFIED OTHERWISE.
15. SANITARY MAINTENANCE STRUCTURE FRAME AND COVERS SHALL BE PER CITY OF OTTAWA STD. S24 AND S25.
16. SANITARY MAINTENANCE STRUCTURES SHALL BE BENCHED PER OPSD 701.021.

STORM
17. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2, OR LATEST AMENDMENT. ALL NON–REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.1, OR LATEST AMENDMENT. PIPE SHALL BE JOINED WITH STD. RUBBER GASKETS AS PER CSA A257.3, OR LATEST AMENDMENT.
18. ALL STORM SEWER TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S6 AND S7 CLASS 'B' UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.
19. ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER C.S.A. B182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
20. CATCH BASINS SHALL BE IN ACCORDANCE WITH OPSD 705.010.
21. CATCH BASIN LEADS SHALL BE 200MM DIA. AT 1% SLOPE (MIN) UNLESS SPECIFIED OTHERWISE.
22. ALL CATCH BASINS SHALL HAVE 600MM SUMPS, UNLESS SPECIFIED OTHERWISE.
23. ALL CATCH BASIN LEAD INVERTS TO BE 1.5m BELOW FINISHED GRADE UNLESS SPECIFIED OTHERWISE.
24. THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED ABOVE. WHERE THE SPECIFIED TRENCH WIDTH IS EXCEEDED, THE CONTRACTOR IS REQUIRED TO PROVIDE AND SHALL BE RESPONSIBLE FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.
25. PERFORATED SUBDRAIN FOR ROAD AND PARKING LOT CATCH BASIN SHALL BE INSTALLED PER CITY STD R1 AND GEOTECHNICAL RECOMMENDATIONS UNLESS OTHERWISE NOTED.
26. PERFORATED SUBDRAIN FOR REAR YARD AND LANDSCAPING APPLICATIONS SHALL BE INSTALLED PER CITY STD S29, S30, AND S31, WHERE APPLICABLE.
27. RIP–RAP TREATMENT FOR SEWER AND CULVERT OUTLETS PER OPSD 810.010.
28. ALL STORM SEWERS / CULVERTS TO BE INSTALLED WITH FROST TREATMENT PER OPSD 803.031 WHERE APPLICABLE.
29. STORM MAINTENANCE STRUCTURE FRAME AND COVERS SHALL BE PER CITY OF OTTAWA STD S25 AND S24.1, UNLESS OTHERWISE NOTED.
30. CATCH BASIN FRAME AND COVER SHALL BE PER OPSD 400.02 AND CITY STD S19.1, UNLESS OTHERWISE NOTED.

SITE SERVICING PLAN
1186-1188 WELLINGTON ST WEST

WELLDALE LIMITED PARTNERSHIP

200-180 KENT STREET
OTTAWA, ON, K1P 0B6

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DRAWN BY:	G.G.G.	CHECKED BY:	S.L.M.	DRAWING NO.	SHEET NO.
DESIGNED BY:	G.G.G.	CHECKED BY:	D.J.H.	SSP-1	3 of 6
SCALE:	1:200	DATE:	JUNE 2022		

CITY FILE No.: D07-12-XX-XXXX CITY PLAN No.: XXXXX

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EROSION AND SEDIMENT CONTROL NOTES

GENERAL
THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

THE CONTRACTOR ACKNOWLEDGES THAT SURFACE EROSION AND SEDIMENT RUNOFF RESULTING FROM THEIR CONSTRUCTION OPERATIONS HAS POTENTIAL TO CAUSE A DETRIMENTAL IMPACT TO ANY DOWNSTREAM WATERCOURSE OR SEWER, AND THAT ALL CONSTRUCTION OPERATIONS THAT MAY IMPACT UPON WATER QUALITY SHALL BE CARRIED OUT IN A MANNER THAT STRICTLY MEETS THE REQUIREMENTS OF ALL APPLICABLE LEGISLATION AND REGULATIONS.

AS SUCH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT THEIR OPERATIONS, AND SUPPLYING AND INSTALLING ANY APPROPRIATE CONTROL MEASURES, SO AS TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING ANY SEWER OR WATERCOURSE WITHIN OR DOWNSTREAM OF THE WORKING AREA.

THE CONTRACTOR ACKNOWLEDGES THAT NO ONE MEASURE IS LIKELY TO BE 100% EFFECTIVE FOR EROSION PROTECTION AND CONTROLLING SEDIMENT RUNOFF AND DISCHARGES FROM THE SITE. THEREFORE, WHERE NECESSARY THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES ARRANGED IN SUCH A MANNER AS TO MITIGATE SEDIMENT RELEASE FROM THE CONSTRUCTION OPERATIONS AND ACHIEVE SPECIFIC MAXIMUM PERMITTED CRITERIA WHERE APPLICABLE. SUGGESTED ON-SITE MEASURES MAY INCLUDE, BUT SHALL NOT BE LIMITED TO, THE FOLLOWING METHODS: SEDIMENT PONDS, FILTER BAGS, PUMP FILTERS, SETTLING TANKS, SILT FENCES, STRAW BALES, FILTER CLOTHS, CATCH BASIN FILTERS, CHECK DAMS AND/OR BERMS, OR OTHER RECOGNIZED TECHNOLOGIES AND METHODS AVAILABLE AT THE TIME OF CONSTRUCTION. SPECIFIC MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF OPSS 577 WHERE APPROPRIATE, OR IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

WHERE, IN THE OPINION OF THE CONTRACT ADMINISTRATOR OR REGULATORY AGENCY, THE INSTALLED CONTROL MEASURES FAIL TO PERFORM ADEQUATELY, THE CONTRACTOR SHALL SUPPLY AND INSTALL ADDITIONAL OR ALTERNATIVE MEASURES AS DIRECTED BY THE CONTRACT ADMINISTRATOR OR REGULATORY AGENCY, AS SUCH, THE CONTRACTOR SHALL HAVE ADDITIONAL CONTROL MATERIALS ON SITE AT ALL TIMES WHICH ARE EASILY ACCESSIBLE AND MAY BE IMPLEMENTED BY HIM AT A MOMENT'S NOTICE.

PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL SUBMIT TO THE CONTRACT ADMINISTRATOR SIX COPIES OF A DETAILED EROSION AND SEDIMENT CONTROL PLAN (ESCP). THE ESCP WILL CONSIST OF A WRITTEN DESCRIPTION AND DETAILED DRAWINGS INDICATING THE ON-SITE ACTIVITIES AND MEASURES TO BE USED TO CONTROL EROSION AND SEDIMENT MOVEMENT FOR EACH STEP OF THE WORK.

CONTRACTOR'S RESPONSIBILITIES
THE CONTRACTOR SHALL ENSURE THAT ALL WORKERS, INCLUDING SUB-CONTRACTORS, IN THE WORKING AREA ARE AWARE OF THE IMPORTANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES AND INFORMED OF THE CONSEQUENCES OF THE FAILURE TO COMPLY WITH THE REQUIREMENTS OF ALL REGULATORY AGENCIES.

THE CONTRACTOR SHALL PERIODICALLY, AND WHEN REQUESTED BY THE CONTRACT ADMINISTRATOR, CLEAN OUT ACCUMULATED SEDIMENT DEPOSITS AS REQUIRED AT THE SEDIMENT CONTROL DEVICES, INCLUDING THOSE DEPOSITS THAT MAY ORIGINATE FROM OUTSIDE THE CONSTRUCTION AREA. ACCUMULATED SEDIMENT SHALL BE REMOVED IN SUCH A MANNER THAT PREVENTS THE DEPOSITION OF THIS MATERIAL INTO ANY SEWER OR WATERCOURSE AND AVOIDS DAMAGE TO THE CONTROL MEASURE. THE SEDIMENT SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE AND MANAGED IN COMPLIANCE WITH THE REQUIREMENTS FOR EXCESS EARTH MATERIAL, AS SPECIFIED ELSEWHERE IN THE CONTRACT.

THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE CONTRACT ADMINISTRATOR ANY ACCIDENTAL DISCHARGES OF SEDIMENT MATERIAL INTO EITHER THE WATERCOURSE OR THE STORM SEWER SYSTEM. FAILURE TO REPORT WILL BE CONSTITUTE A BREACH OF THIS SPECIFICATION AND THE CONTRACTOR MAY ALSO BE SUBJECT TO THE PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY. APPROPRIATE RESPONSE MEASURES, INCLUDING ANY REPAIRS TO EXISTING CONTROL MEASURES OR THE IMPLEMENTATION OF ADDITIONAL CONTROL MEASURES, SHALL BE CARRIED OUT BY THE CONTRACTOR WITHOUT DELAY.

THE SEDIMENT CONTROL MEASURES SHALL ONLY BE REMOVED WHEN, IN THE OPINION OF THE CONTRACT ADMINISTRATOR, THE MEASURE OR MEASURES, IS NO LONGER REQUIRED. NO CONTROL MEASURE MAY BE PERMANENTLY REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE CONTRACT ADMINISTRATOR. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED IN A MANNER THAT AVOIDS THE ENTRY OF ANY EQUIPMENT, OTHER THAN HAND-HELD EQUIPMENT, INTO ANY WATERCOURSE, AND PREVENTS THE RELEASE OF ANY SEDIMENT OR DEBRIS INTO ANY SEWER OR WATERCOURSE WITHIN OR DOWNSTREAM OF THE WORKING AREA. ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE WORKING AREA AT THE CONTRACTOR'S EXPENSE AND MANAGED IN COMPLIANCE WITH THE REQUIREMENTS FOR EXCESS EARTH MATERIAL.

WHERE, IN THE OPINION OF EITHER THE CONTRACT ADMINISTRATOR OR A REGULATORY AGENCY, ANY OF THE TERMS SPECIFIED HEREIN HAVE NOT BEEN COMPLIED WITH OR PERFORMED IN A SUITABLE MANNER, OR AT ALL, THE CONTRACT ADMINISTRATOR OR REGULATORY AGENCY HAS THE RIGHT TO IMMEDIATELY WITHDRAW ITS PERMISSION TO CONTINUE THE WORK BUT MAY RENEW ITS PERMISSION UPON BEING SATISFIED THAT THE DEFAULTS OR DEFICIENCIES IN THE PERFORMANCE OF THIS SPECIFICATION BY THE CONTRACTOR HAVE BEEN REMEDIED.

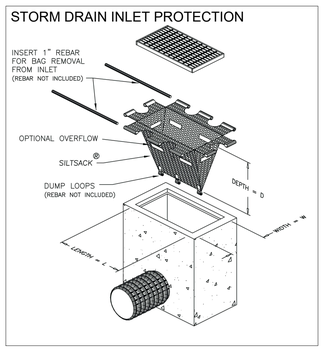
SPILL CONTROL NOTES

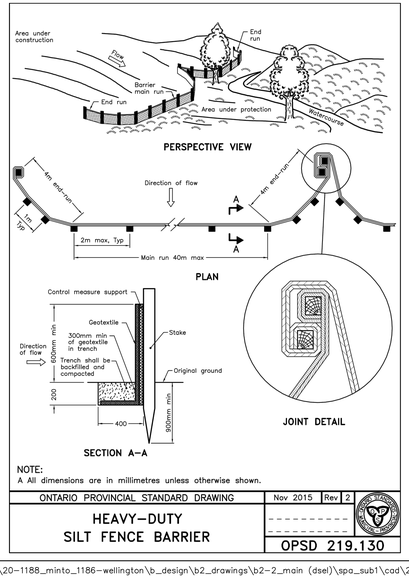
1. ALL CONSTRUCTION EQUIPMENT SHALL BE RE-FUELED, MAINTAINED, AND STORED NO LESS THAN 30 METRES FROM WATERCOURSES, STREAMS, CREEKS, WOODLOTS, AND ANY ENVIRONMENTALLY SENSITIVE AREAS, OR AS OTHERWISE SPECIFIED.
2. THE CONTRACTOR MUST IMPLEMENT ALL NECESSARY MEASURES IN ORDER TO PREVENT LEAKS, DISCHARGES OR SPILLS OF POLLUTANTS, DELETERIOUS MATERIALS, OR OTHER SUCH MATERIALS OR SUBSTANCES WHICH WOULD OR COULD CAUSE AN ADVERSE IMPACT TO THE NATURAL ENVIRONMENT.
3. IN THE EVENT OF A LEAK, DISCHARGE OR SPILL OF A POLLUTANT, DELETERIOUS MATERIAL OR OTHER SUCH MATERIAL OR SUBSTANCE WITH WOULD OR COULD CAUSE AN ADVERSE IMPACT TO THE NATURAL ENVIRONMENT, THE CONTRACTOR SHALL:
   - 3.1. IMMEDIATELY NOTIFY THE APPROPRIATE FEDERAL, PROVINCIAL, AND LOCAL GOVERNMENT MINISTRIES, DEPARTMENTS, AGENCIES, AND AUTHORITIES OF THE INCIDENT IN ACCORDANCE WITH ALL CURRENT LAWS, LEGISLATION, ACTS, BY-LAWS, PERMITS, APPROVALS, ETC.
   - 3.2. TAKE IMMEDIATE MEASURES TO CONTAIN THE MATERIAL OR SUBSTANCE, AND TO TAKE SUCH MEASURES TO MITIGATE AGAINST ADVERSE IMPACTS TO THE NATURAL ENVIRONMENT.
   - 3.3. RESTORE THE AFFECTED AREA TO THE ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITIES HAVING JURISDICTION.

MUD MAT NOTES

1. THE GRANULAR MATERIAL WILL REQUIRE PERIODIC REPLACEMENT AS IT BECOMES CONTAMINATED BY VEHICLE TRAFFIC.
2. SEDIMENT SHALL BE CLEANED FROM PUBLIC ROADS AT THE END OF EACH DAY.
3. SEDIMENT SHALL BE REMOVED FROM PUBLIC ROADS BY SHOVELING OR SWEEPING AND DISPOSED OF PROPERLY IN A CONTROLLED SEDIMENT DISPOSAL AREA.

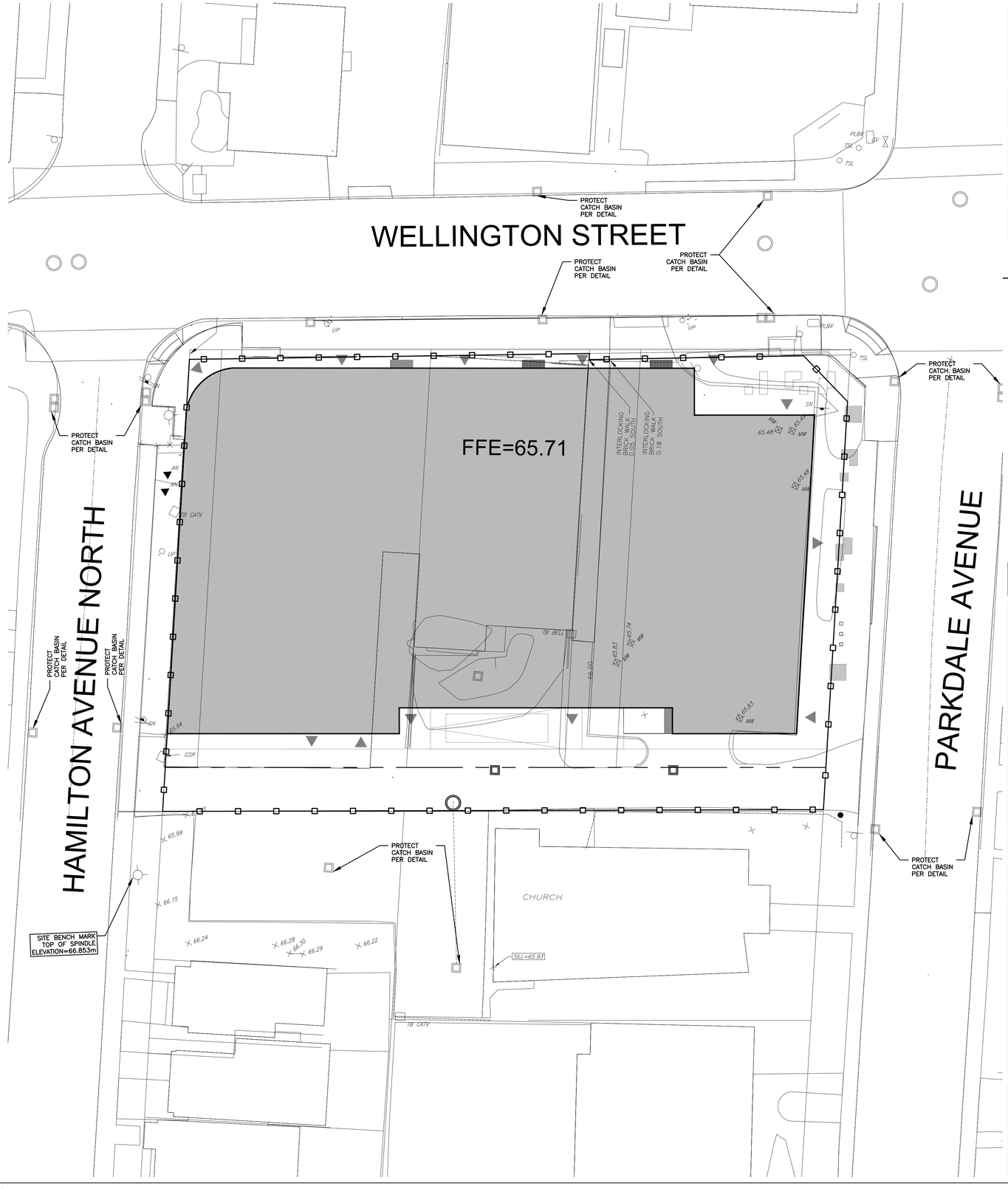
STORM DRAIN INLET PROTECTION

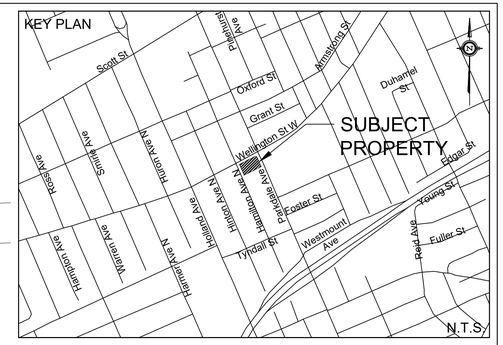




NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
HEAVY-DUTY SILT FENCE BARRIER		OPSD 219.130





LEGEND

EROSION CONTROL FENCE PER OPSD 219.130

NOT FOR CONSTRUCTION

TOPOGRAPHIC INFORMATION
TOPOGRAPHIC INFORMATION PROVIDED BY STANTEC GEOMATICS LTD.
PROJ. NO. 161614215-111
DATED APRIL 26th, 2021

SITE PLAN INFORMATION
SITE PLAN PROVIDED BY DIALOG
DATED JUNE 29th, 2022

GEOTECHNICAL STUDY
GEOTECHNICAL RECOMMENDATIONS PROVIDED BY TERRAPEX ENVIRONMENTAL LTD.
PROJ. NO. CO810.00
DATED: MAY 30th, 2022

SITE SERVICING AND STORMWATER MANAGEMENT STUDY
SERVICING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DAVID SCHAEFFER ENGINEERING LIMITED
PROJ. NO. 20-1188
DATED: JUNE 2022

BENCH MARK
BENCH MARK 1: TOP OF SPINDLE OF FIREHYDRANT IN NORTHEAST CORNER OF PROPERTY. ELEV: 66.439
BENCH MARK 2: TOP OF SPINDLE OF FIREHYDRANT IN SOUTHWEST CORNER OF PROPERTY. ELEV: 66.853

No.	BY	YY.MM.DD	DESCRIPTION
1	C.P.B.	22.06.30	1st SUBMISSION

PROJECT No.20-1188

LICENSED PROFESSIONAL ENGINEER — L. A. COULSON — 100227244 — 2022-06-30 — PROVINCE OF ONTARIO

REVIEWED BY

EROSION CONTROL PLAN
1186-1188 WELLINGTON ST WEST

WELLDALE LIMITED PARTNERSHIP

200-180 KENT STREET
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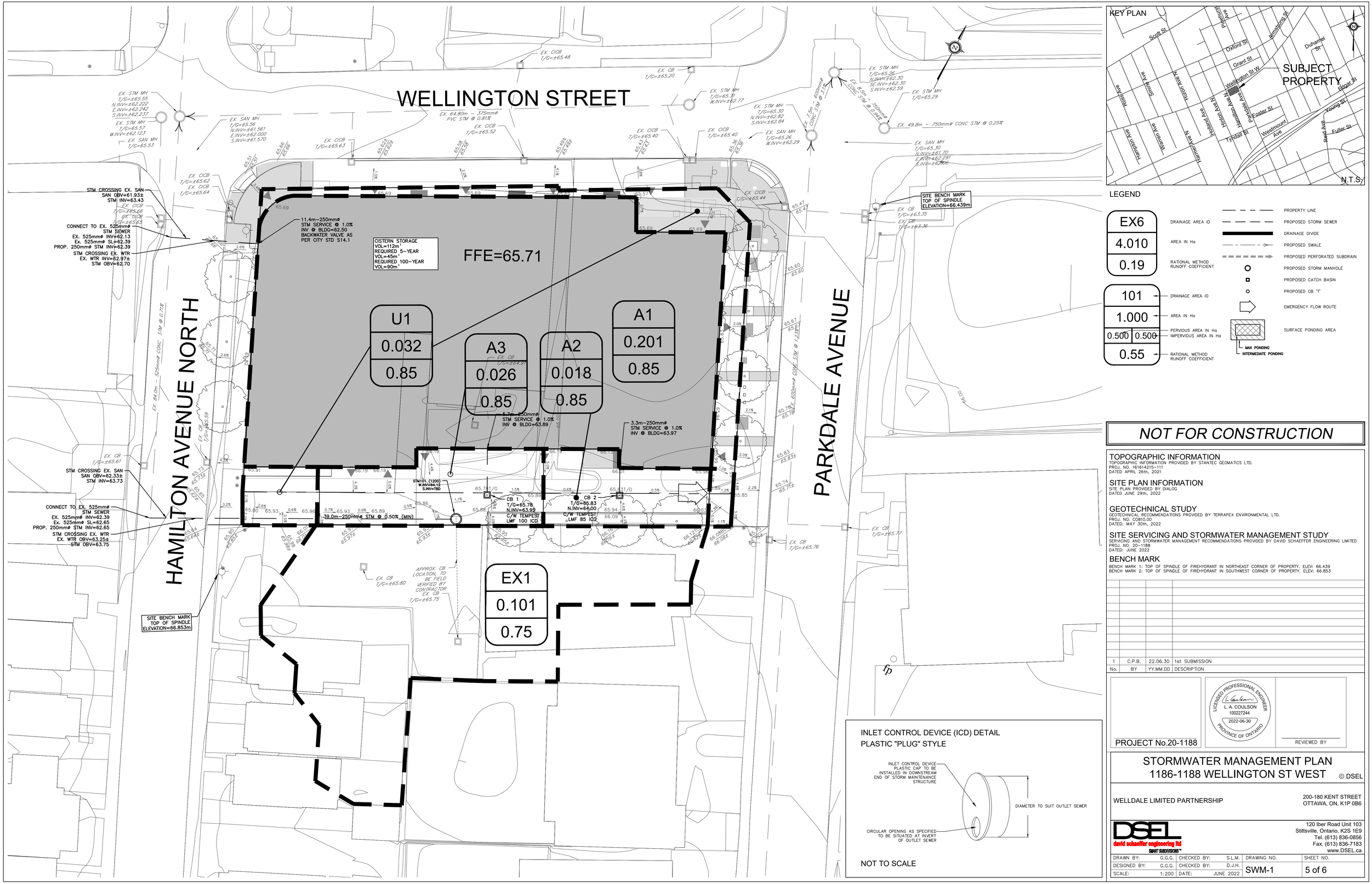
DESIGNED BY:	G.G.G.	CHECKED BY:	D.J.H.	EC-1	4 of 6
SCALE:	1: 200	DATE:	JUNE 2022		

CITY FILE No.: D07-12-XX-XXXX CITY PLAN No.: XXXXX

\\dse-fso1\2011$\projects\20-1188_minto_1186-wellington\b_design\b2_drawings\b2-2_main (dsei)\spa_sub1\cad\2022-06-30_1188_spa.dwg


WELLINGTON STREET
HAMILTON AVENUE NORTH
PARKDALE AVENUE
FFE=65.71
U1
0.032
0.85
A1
0.201
0.85
A3
0.026
0.85
A2
0.018
0.85
EX1
0.101
0.75
CISTERN STORAGE
VOL=112m³
REQUIRED 5-YEAR
VOL=45m³
REQUIRED 100-YEAR
VOL=90m³
11.4m-250mmø
STM SERVICE @ 1.0%
INV @ BLDG=62.50
BACKWATER VALVE AS
PER CITY STD S14.1
5.7m-250mmø
STM SERVICE @ 1.0%
INV @ BLDG=63.89
3.3m-250mmø
STM SERVICE @ 1.0%
INV @ BLDG=63.97
39.0m-250mmø STM @ 0.50% (MIN)
CB 1
T/G=65.78
N.INV=63.95
C/W TEMPEST
LMF 100 ICD
CB 2
T/G=65.83
N.INV=64.00
C/W TEMPEST
LMF 85 ICD
STM101 (1200)
W.INV=64.12
S.INV=TBD
SITE BENCH MARK
TOP OF SPINDLE
ELEVATION=66.439m
SITE BENCH MARK
TOP OF SPINDLE
ELEVATION=66.853m
STM CROSSING EX. SAN
SAN OBV=61.93±
STM INV=63.43
CONNECT TO EX. 525mmø
STM SEWER
EX. 525mmø INV=62.13
Ex. 525mmø SL=62.39
PROP. 250mmø STM INV=62.39
STM CROSSING EX. WTR
EX. WTR INV=62.97±
STM OBV=62.70
STM CROSSING EX. SAN
SAN OBV=62.33±
STM INV=63.73
CONNECT TO EX. 525mmø
STM SEWER
EX. 525mmø INV=62.39
Ex. 525mmø SL=62.65
PROP. 250mmø STM INV=62.65
STM CROSSING EX. WTR
EX. WTR OBV=63.25±
STM OBV=63.75
EX. 64.80m – 375mmø PVC STM @ 0.81%
EX. 49.8m – 750mmø CONC STM @ 0.25%
EX. 84.0m – 525mmø CONC STM @ 0.71%
EX. 7.2m – 600mmø CONC STM @ 1.25%
EX. 8.5m – 750mmø CONC STM @ 0.25%
APPROX. CB LOCATION, TO BE FIELD VERIFIED BY CONTRACTOR
EX. CB T/C=±65.75
EX. CB T/C=±65.80
EX. CB T/C=±65.77
EX. CB T/C=±65.76
EX. CB T/C=±63.35
EX. CB T/C=±63.36
EX. CB T/C=±64.91
EX. CB T/C=±65.61
EX. CICB T/C=±65.48
EX. CB T/C=±65.20
EX. STM MH T/C=±65.55 N.INV=±62.222 E.INV=±62.242 S.INV=±62.237
EX. STM MH T/C=±65.57 W.INV=±62.123
EX. SAN MH T/C=±65.53
EX. SAN MH T/C=±65.56 N.INV=±61.561 E.INV=±62.000 S.INV=±61.570
EX. STM MH T/C=±65.31 W.INV=±62.77
EX. STM MH T/C=±65.26 N.INV=±62.30 SE.INV=±62.30 S.INV=±62.59
EX. STM MH T/C=±65.29
EX. STM MH T/C=±65.30 N.INV=±62.82 S.INV=±62.84
EX. SAN MH T/C=±65.26 W.INV=±62.29
EX. SAN MH T/C=±65.30 N.INV=±61.70 E.INV=±62.291 S.INV=±62.406
EX. CICB T/C=±65.63
EX. CICB T/C=±65.52
EX. CICB T/C=±65.40
EX. CICB T/C=±65.40
EX. CICB T/C=±65.44
EX. CICB T/C=±65.62
EX. CICB T/C=±65.64
EX. CICB T/C=±65.66
EX. CICB T/C=±65.63
65.69
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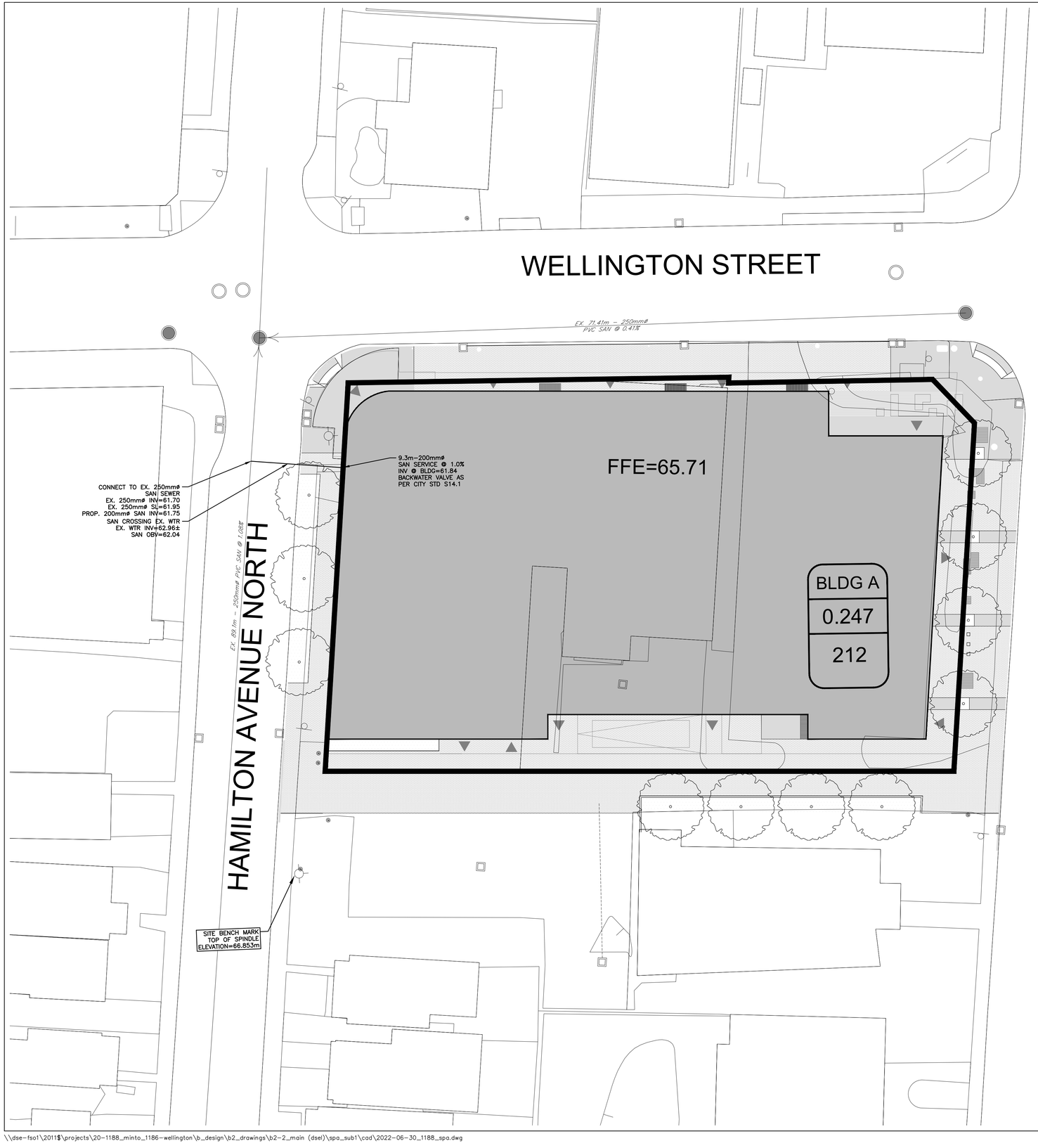
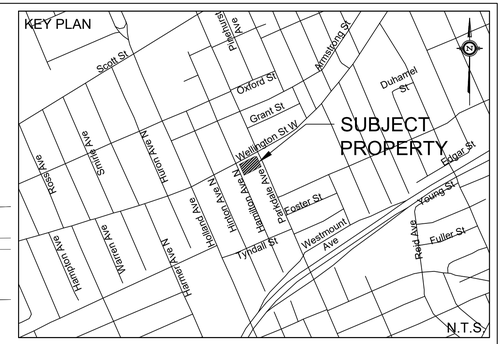


KEY PLAN



LEGEND

PROPERTY LINE
PROPOSED SANITARY SEWER
DRAINAGE DIVIDE

2	DRAINAGE AREA ID
0.016	AREA IN Ha
0 APT	NUMBER OF APARTMENTS UNITS

NOT FOR CONSTRUCTION

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PROJECT No.20-1188

LICENSED PROFESSIONAL ENGINEER
L. A. COULSON
100227244
2022-06-30
PROVINCE OF ONTARIO

REVIEWED BY

SANITARY DRAINAGE PLAN
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