

REPORT

SITE SERVICING REPORT 1546 SCOTT STREET

Project: 132902-7.03.04



Prepared for Reid's Heritage Properties
by IBI Group

August 16, 2022

Document Control Page

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1 INTRODUCTION

1.1 Scope

The purpose of this report is to outline the required municipal services, including water supply, stormwater management and wastewater disposal, needed to support the redevelopment of the subject property. The property is approximately 0.253 hectares in area and is currently identified as 1546 Scott Street.

The site is bound by existing commercial and residential lands to the west and south (1560 Scott St, known as Holland Cross, with a current development application at the City of Ottawa for lands south of the subject site), Scott Street to the north, and undeveloped lands to the east. Please refer to Figure 1 – Existing Conditions in **Appendix A** for location information.

This Site Servicing Study, which also includes the Stormwater Management Plan, Watermain Analysis and Erosion and Sedimentation Control Plans, is being completed in support of the Site Plan Application.

1.2 Subject Site

Reid's Heritage Properties proposes to construct a 25-storey residential apartment building with 230 units. The proposed development also includes 4 levels of underground parking. 200 m² of commercial space is also proposed. Vehicular access to the site will be from both Scott Street to the north as well as through an existing shared access of Bullman St/Hamilton Ave. N intersection towards the south. Please refer to Figure 2 – Site Plan in **Appendix A** for more information.

The site currently consists of a commercial retail store (Beer Store). All existing structures within the subject property will be demolished to facilitate the proposed development.

1.3 Pre-consultation

A pre-consultation meeting with the City of Ottawa was held in May 2021 regarding the proposed development. Notes from this meeting may be found in **Appendix A**. No significant constraints relating to the site servicing or stormwater management for the subject lands were identified during the consultation.

2 WATER DISTRIBUTION

2.1 Existing Conditions

Adjacent to the site there is an existing 1067 mm diameter concrete watermain, located within the Scott Street right of way. At the eastern limit of the site there is also a 152mm diameter iron watermain. This is a dead-end watermain which terminates at the east property limit of the subject lands and is located within the subject property. The existing building is thought to be serviced from this dead-end watermain. These watermains fall within the City of Ottawa's pressure zone 1W which will provide the water supply to the site. The existing building is serviced from Scott Street, although the exact location is unknown.

2.2 Design Criteria

2.2.1 Water Demands

The population for apartment buildings is assumed at 1.4 persons per 1-bedroom unit and 2.1 persons per 2-bedroom unit as found in Table 4.1 of the Design Guidelines. A watermain demand calculation sheet is included in **Appendix B** and the total water demands are summarized as follows:

	<u>Subject Site</u>
Average Day	1.35 l/s
Maximum Day	3.37 l/s
Peak Hour	7.41 l/s

2.2.2 System Pressure

The Ottawa Design Guidelines – Water Distribution (WDG001), July 2010, City of Ottawa, Clause 4.2.2.1 states that the preferred practice for design of a new distribution system is to have normal operating pressures range between 345 kPa (50 psi) and 480 kPa (80 psi) under maximum daily flow conditions. Other pressure criteria identified in Clause 4.2.2 of the guidelines are as follows:

Minimum Pressure	Minimum system pressure under peak hour demand conditions shall not be less than 276 kPa (40 psi)
Fire Flow	During the period of maximum day demand, the system pressure shall not be less than 140 kPa (20 psi) during a fire flow event.
Maximum Pressure	In accordance with the Ontario Building/Plumbing Code, the maximum pressure should not exceed 552 kPa (80 psi). Pressure reduction controls will be required for buildings where it is not possible/feasible to maintain the system pressure below 552 kPa.

2.2.3 Fire Flow Rates

A calculation using the Fire Underwriting Survey (FUS) method was conducted to determine the fire flow requirement for the site. The building is considered fire-resistive construction. Results of the analysis provides a maximum fire flow rate of 5,000 l/min or 83 l/s is required which is used in the hydraulic analysis. A copy of the FUS calculation is included in **Appendix B**.

2.3 Proposed Water Plan

The city has requested that the new building not be serviced from the 1067mm concrete watermain. It is therefore proposed that the existing dead-end 152mm watermain be extended to the intersection of Scott Street and Holland Avenue. Limited space within the ROW will result in removal of sidewalk to install the watermain with 3m of separation, however since Scott St is being redeveloped, a temporary asphalt sidewalk will be reinstated in its place to maintain pedestrian access until the completion of the redevelopment.

Twin 152mm dia water services are proposed to connect to this new watermain. A new valve chamber separating the twin services is also proposed, see site servicing plan 132902-C-001 in **Appendix E**. The proposed 152mm dia services will provide adequate supply to the building to meet demands while twining the service will provide service redundancy for this building.

All existing waster services will be located and abandoned per City of Ottawa specifications.

With 2 AA hydrants within 75m of the building the minimum number of hydrants needed to deliver the required fire flow to the structure is being provided in accordance with Technical Bulletin ISTB-2018-02 dated March 21, 2018. Furthermore, the fire dept. connection is located within 45m of a hydrant which is located on Scott Street at the eastern property line, as such a new hydrant is not needed.

BUILDING ID	FIRE FLOW DEMAND (L/MIN)	FIRE HYDRANT(S) WITHIN 75M (5,700 L/MIN)	FIRE HYDRANT(S) WITHIN 150M (3,800 L/MIN)	COMBINED FIRE FLOW (L/MIN)
1546 Scott	5,000	1	1	9,500

3 WASTEWATER

3.1 Existing Conditions

Adjacent to the site is a 300mm concrete sanitary sewer located in the Scott Street ROW draining eastward. This sewer will be the outlet for the subject development.

3.2 Design Criteria

The sanitary sewers for the subject site will be based on the City of Ottawa design criteria. It should be noted that the sanitary sewer design for this study incorporates the latest City of Ottawa design parameters identified in Technical Bulletin ISTB-2018-01. Some of the key criteria will include the following:

- Commercial/Institutional flow 28,000 l/ha/d
- Residential flow 280 l/c/d
- Peaking factor 1.5 if ICI in contributing area >20%
1.0 if ICI in contributing area <20%
- Infiltration allowance 0.33 l/s/ha
- Velocities 0.60 m/s min. to 3.0 m/s max.

Given the above criteria, total wastewater flow from the proposed development will 4.66 l/s, the detailed sanitary sewer calculations are included in **Appendix C**. As noted during the City pre-consult, City staff advised there are no capacity issues with the proposed sanitary outlet servicing the proposed development.

3.3 Recommended Wastewater Plan

A 200mm dia sanitary service lateral is proposed to connect to the existing sanitary sewer in Scott Street to service this site. Please refer to the site servicing plan 132902-C-001 in **Appendix E** for connection location details.

Existing sanitary service will be abandoned per City of Ottawa specifications.

4 STORMWATER SYSTEM

4.1 Existing Conditions

The site is currently serviced by a 1050mm concrete storm sewer located in the Scott Street ROW. This sewer serves as the current outlet for the major and minor flows generated from the current site.

4.2 Design Criteria

Criteria for the stormwater management of existing infill sites discharging to separated sewers within the City of Ottawa are as follows;

- Existing adjacent storm sewers were designed to a 2 year level of service
- Site to be designed to limit the 100 year post development flow to a maximum of the 2 year pre development flow
- Pre development flow to use a maximum C of 0.5 and a minimum TC of 10 min.

The stormwater system was designed following the principles of dual drainage, making accommodations for both major and minor flow.

Some of the key criteria include the following:

- | | |
|---------------------------------|--|
| • Design Storm | 1:2 year return (Ottawa)
1:100 year return (External Areas) |
| • Rational Method Sewer Sizing | |
| • Initial Time of Concentration | 10 minutes |
| • Runoff Coefficients | |
| - Landscaped Areas | C = 0.30 |
| - Asphalt/Concrete | C = 0.90 |
| - Roof | C = 0.90 |
| • Pipe Velocities | 0.80 m/s to 6.0 m/s |
| • Minimum Pipe Size | 250 mm diameter
(200 mm CB Leads) |

4.3 Proposed Minor System

Drawing C-001 in **Appendix E** illustrates the proposed storm sewer service for the site. The majority of the site runoff will be captured and discharges into the municipal system through the service along with some uncontrolled surface drainage entering the Scott St ROW.

Using the above-noted criteria, the proposed storm sewer connection was sized accordingly. A detailed storm sewer design sheet and the associated storm sewer drainage area plan are included in **Appendix D**.

4.4 Stormwater Management

The subject site will be limited to a release rate established using the criteria described in section 4.2. This will be achieved through roof flow control devices and an inlet control device (ICD) at the outlet of the cistern.

Flows generated that are in excess of the site's allowable release rate will be stored within a cistern located at the parking garage structure.

At certain locations within the site, the opportunity to store runoff is limited due to grading constraints and building geometry. These locations are generally located at the perimeter of the site where it is necessary to tie into public boulevards and adjacent properties, and it is not always feasible to capture or store stormwater runoff.

In this case, a portion of the building frontage along Scott Street will discharge uncontrolled to the street CBs. This uncontrolled area, 0.006 hectares in total, have a C value of 0.9 (increased by 25% to a maximum of 1.00 for 100 year events). Based on 1:100 year storm uncontrolled flows, the uncontrolled areas generate 2.98 l/s runoff (refer to Section 4.5 for calculation). The cistern has been sized to control water generated during the 1:100-year event, with no overflow leaving the site. Please refer to the SWM calculations in **Appendix D**.

4.5 Inlet Controls

The allowable release rate for the 0.253 Ha site can be calculated as follows:

$$\begin{aligned}
 Q_{\text{allowable}} &= 2.78 \times C \times i_{2\text{yr}} \times A \quad \text{where:} \\
 C &= 0.5 \text{ (pre-development } C^*) \\
 i_{2\text{yr}} &= \text{Intensity of 2-year storm event (mm/hr)} \\
 &= 732.951 \times (T_c + 6.199)^{0.81} = 76.81 \text{ mm/hr; where } T_c = 10 \text{ minutes}^* \\
 A &= \text{Area} = 0.253 \text{ Ha} \\
 &= \mathbf{27.01 \text{ L/s}}
 \end{aligned}$$

*based on pre development calculations, see Appendix C

As noted in Section 4.4, a portion of the site will be left to discharge to the surrounding boulevard at an uncontrolled rate.

Based on a 1:100 year event, the flow from the 0.006 Ha uncontrolled areas can be determined as:

$$\begin{aligned}
 Q_{\text{uncontrolled}} &= 2.78 \times C \times i_{100\text{yr}} \times A \quad \text{where:} \\
 C &= \text{Average runoff coefficient of uncontrolled area} = 1.00 \\
 i_{100\text{yr}} &= \text{Intensity of 100-year storm event (mm/hr)} \\
 &= 1735.688 \times (T_c + 6.014)^{0.820} = 178.56 \text{ mm/hr; where } T_c = 10 \text{ minutes} \\
 A &= \text{Uncontrolled Area} = 0.006 \text{ Ha}
 \end{aligned}$$

Therefore, the uncontrolled release rate can be determined as:

$$\begin{aligned}
 Q_{\text{uncontrolled}} &= 2.78 \times C \times i_{100\text{yr}} \times A \\
 &= 2.78 \times 1.0 \times 178.56 \times 0.006
 \end{aligned}$$

$$= 2.98 \text{ L/s}$$

The maximum allowable release rate from the remainder of the site can then be determined as:

$$\begin{aligned} Q_{\text{max allowable}} &= Q_{\text{restricted}} - Q_{\text{uncontrolled}} \\ &= 27.01 \text{ L/s} - 2.98 \text{ L/s} \\ &= 24.03 \text{ L/s} \end{aligned}$$

4.6 On-Site Detention

As noted in section 4.4 any excess storm water up to the 100-year event is to be stored on-site within the building cistern in order to not surcharge the downstream municipal storm sewer system. As the cistern is located inside the building, coordination with the architect, structural and mechanical engineers will be needed to design the structure and associated inlet control device.

4.6.1 Site Inlet Control

The following Table summarizes the on-site storage requirements during both the 1:5-year and 1:100-year events.

ICD AREA	TRIBUTARY AREA	AVAILABLE STORAGE (M ³)	100-YEAR STORM		5-YEAR STORM	
			RESTRICTED FLOW (L/S)	REQUIRED STORAGE (M ³)	RESTRICTED FLOW (L/S)	REQUIRED STORAGE (M ³)
Cistern	0.25	100	24	97.34	24	39.21
Unrestricted	0.006					
TOTAL	0.25	100	24	97.34	24	39.21

In all instances the required storage is met. The cistern will be fitted with a plug style ICD set at 24 litres/second, as such flow rates have been reduced by 50% when calculating the required storage volumes.

4.6.2 Overall Release Rate

As demonstrated above, the site uses an inlet control device to restrict the 100 year storm event to the criteria approved by the City of Ottawa. Restricted stormwater will be contained onsite by the building cistern. In the 100 year event, there will be no overflow off-site from restricted areas.

The sum of restrictions on the site is 24 l/s, which is less than the allowable release of 24.03 l/s noted in section 4.5.

5 SEDIMENT AND EROSION CONTROL PLAN

During construction, existing storm water conveyance systems can be exposed to significant sediment loadings. A number of construction techniques designed to reduce unnecessary construction sediment loadings may be used such as;

- Filter socks will remain on open surface structures such as manholes and catchbasins until these structures are commissioned and put into use;
- Installation of silt fence, where applicable, around the perimeter of the proposed work area.

During construction of the services, any trench dewatering using pumps will be fitted with a "filter sock." Thus, any pumped groundwater will be filtered prior to release to the existing surface runoff. The contractor will inspect and maintain the filter sock as needed including sediment removal and disposal.

All catchbasins, and to a lesser degree manholes, convey surface water to sewers. Consequently, until the surrounding surface has been completed these structures will be protected with a sediment capture filter sock to prevent sediment from entering the minor storm sewer system. These will stay in place and be maintained during construction and build-out until it is appropriate to remove them.

The Sediment and Erosion Control Plan 132902-C-010 is included in **Appendix E**.

6 CONCLUSIONS

Municipal water, wastewater and stormwater systems required to accommodate the proposed development are available to service the proposed development. Prior to construction, existing sewers are to be CCTV inspected to assess sewer condition.

This report has demonstrated sanitary and storm flows from and water supply to the subject site can be accommodated by the existing infrastructure. Also, the proposed servicing has been designed in accordance with MECP and City of Ottawa current level of service requirements.

The use of lot level controls, conveyance controls and end of pipe controls outlined in the report will result in effective treatment of surface stormwater runoff from the site. Adherence to the sediment and erosion control plan during construction will minimize harmful impacts on surface water.

Based on the information provided herein, the development can be serviced to meet City of Ottawa requirements.

Report prepared by:



Demetrius Yannouloupoulos P. Eng.
Director, Office Lead



S. E. Labadie, P.Eng
Civil Engineer

APPENDIX A

- Figure 1 – Existing Conditions
- Figure 2 – Site Plan
- City Pre-Consultation Meeting Notes (June 15, 2021)



Scale

NTS

Project Title

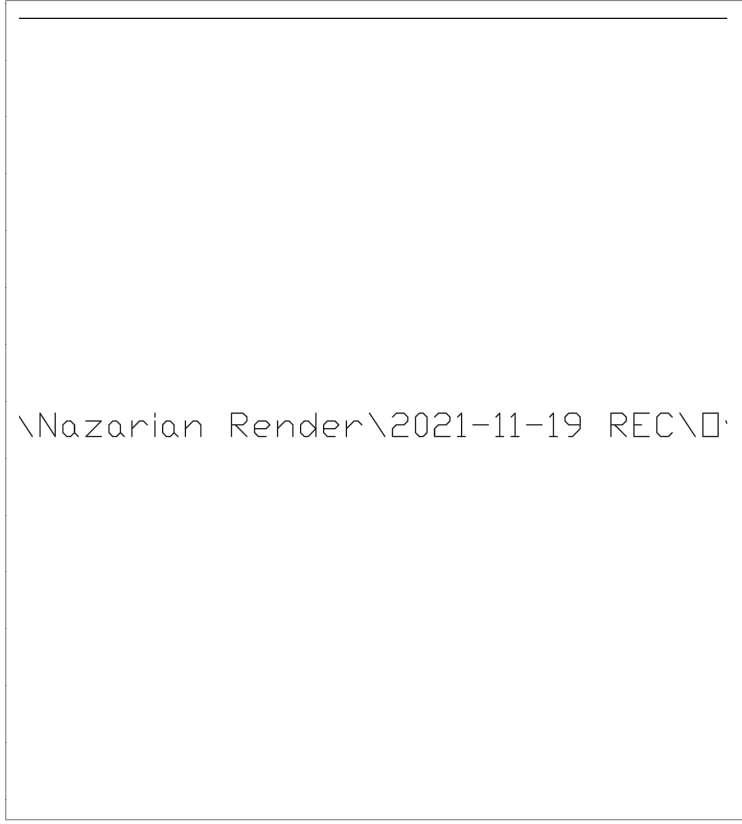
1546 SCOTT STREET

Drawing Title

EXISTING CONDITIONS

Sheet No.

FIGURE 1



4 OVERVIEW Scale: N.T.S.



3 CONTEXT PLAN Scale: N.T.S.

1546 SCOTT STREET OTTAWA, ON

LEGAL DESCRIPTION
 PLAN OF SURVEY PART OF LOTS 384 (NORTH OF BULLMAN STREET) AND PART OF LOTS 384 (SOUTH OF SCOTT STREET) REGISTER PLAN 58 AND PART OF LOTS 1290, 1292 & 1303 REGISTER PLAN 157 CITY OF OTTAWA

SITE DATA

EXISTING LOT AREA	2,504.5 m ²
RESIDENTIAL GFA	13,885 m ²
COMMERCIAL GFA	200 m ²
TOTAL GFA	13,885 m ²
PIG(F)LOT AREA	5.5
LOT COVERAGE	1,544 m ²
LOT COVERAGE %	61.2%

SETBACKS

FRONT YARD & CORNER SIDE YARD	2.8 m	12.3 m
INTERIOR SIDE YARD	7.8 m EAST	4.1 m EAST
REAR	0.0 m WEST	8.9 m WEST
REAR	0.6 m	11.6 m

BUILDING HEIGHT

MINIMUM	6.7m	145.8m
MAXIMUM	36.35m	145.8m

LANDSCAPE

REQUIRED	PROVIDED
N/A	189 m ²

LANDSCAPE PROVISION FOR PARKING LOT

REQUIRED	PROVIDED
MIN 15%	8%

FLOOR AREA DETAILS

FLOOR LEVEL	FLOOR AREA	COMMERCIAL	GFA	AMENITY INDOOR	AMENITY OUTDOOR	1 BR	2 BR	TOTAL
F1	200 m ²	0	0	566 m ²	308 m ²	0	0	0
F2	690 m ²	0	595 m ²	0	0	6	4	10
F3	690 m ²	0	595 m ²	0	0	6	4	10
F4	690 m ²	0	595 m ²	0	0	6	4	10
F5	690 m ²	0	595 m ²	0	0	6	4	10
F6	690 m ²	0	595 m ²	0	0	6	4	10
F7	690 m ²	0	595 m ²	0	0	6	4	10
F8	690 m ²	0	595 m ²	0	0	6	4	10
F9	690 m ²	0	595 m ²	0	0	6	4	10
F10	690 m ²	0	595 m ²	0	0	6	4	10
F11	690 m ²	0	595 m ²	0	0	6	4	10
F12	690 m ²	0	595 m ²	0	0	6	4	10
F13	690 m ²	0	595 m ²	0	0	6	4	10
F14	690 m ²	0	595 m ²	0	0	6	4	10
F15	690 m ²	0	595 m ²	0	0	6	4	10
F16	690 m ²	0	595 m ²	0	0	6	4	10
F17	690 m ²	0	595 m ²	0	0	6	4	10
F18	690 m ²	0	595 m ²	0	0	6	4	10
F19	690 m ²	0	595 m ²	0	0	6	4	10
F20	690 m ²	0	595 m ²	0	0	6	4	10
F21	690 m ²	0	595 m ²	0	0	6	4	10
F22	690 m ²	0	595 m ²	0	0	6	4	10
F23	690 m ²	0	595 m ²	0	0	6	4	10
F24	690 m ²	0	595 m ²	0	0	6	4	10
F25	690 m ²	0	595 m ²	0	0	6	4	10
TOTALS	35,500 m ²	200 m ²	13,885 m ²	566 m ²	308 m ²	138	92	230

AMENITY SPACE

REQUIRED	PROVIDED					
RATE/UNIT	# OF UNITS	AREA REQUIRED	INDOOR	OUTDOOR	PRIVATE	TOTAL AREA
6.0 m ²	230	1,380 m ²	566 m ²	308 m ²	690 m ²	1,564 m ²

AMENITY SPACE REQUIRED 1,380 m² TOTAL 1,564 m²

LOADING DOCK

REQUIRED	PROVIDED
LOADING DOCK REQUIRED FOR RESIDENTIAL AND COMMERCIAL	1 LOADING DOCK SHARED BY RESIDENTIAL AND COMMERCIAL

CAR PARKING

RESIDENTIAL PARKING	REQUIRED	PROVIDED			
UNIT TYPES	RATE	# OF UNITS	PARKING REQUIRED	PARKING LEVEL	PARKING SPACES
1 BEDROOM	0.0	138	0	Surface	10
2 BEDROOM	0.0	92	0	P1 LEVEL	55
SUB-TOTAL	230	0	P4 LEVEL	34	
TOTAL RESIDENTIAL PARKING REQUIRED	0	TOTAL	154		

VISITOR PARKING

REQUIRED	PROVIDED				
RATE	# OF UNITS	TOTAL SPACES	PARKING LEVEL	PARKING SPACES	
0.1 x NUMBER OF UNITS MINUS THE FIRST 0.1 PER UNIT (2 UNITS)	218	22	Surface	13	
			P1	9	
TOTAL VISITOR PARKING REQUIRED	22	TOTAL	22		

TOTAL PARKING PROVIDED SUMMARY

TOTAL	RESIDENTIAL	VISITOR	TOTAL NUMBER OF PARKING ON SITE
TOTAL	154	22	176

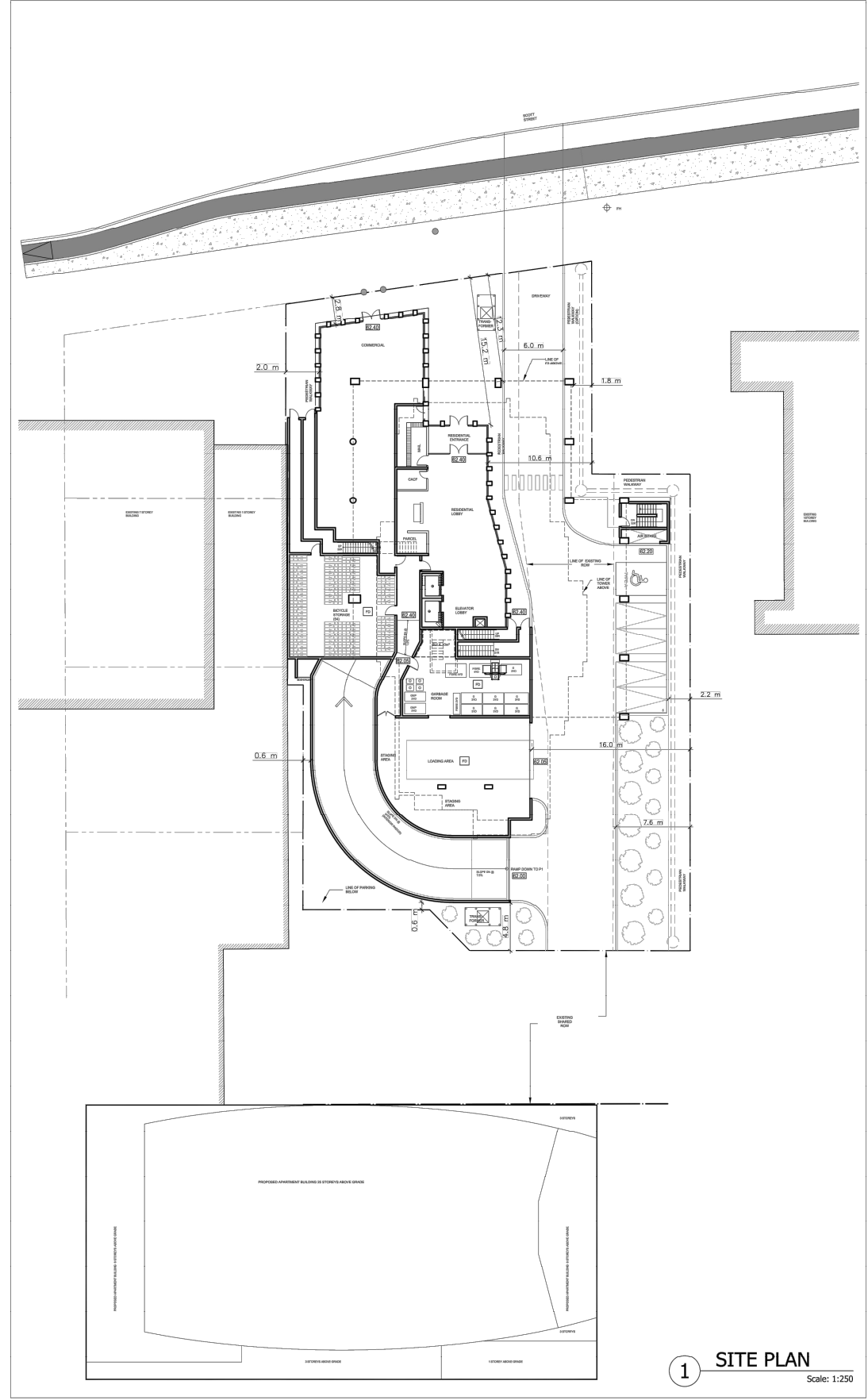
BICYCLE PARKING

RESIDENTIAL	REQUIRED	PROVIDED			
RATE	# OF UNITS	PARKING REQUIRED	PARKING LOCATION	NO. OF PARKING SPOTS	
0.5 PER UNIT	230	115.00	OUTDOOR	5	
			P1-INDOOR	54	
			P2-INDOOR	61	
TOTAL RESIDENTIAL BICYCLE PARKING REQUIRED	115	TOTAL	120		

COMMERCIAL PARKING

REQUIRED	PROVIDED				
RATE	AREA	PARKING REQUIRED	PARKING LOCATION	NO. OF PARKING SPOTS	
COMMERCIAL 1 PER 250 m ²	1 PER 200 m ²	200 m ²	1	OUTDOOR	2
TOTAL COMMERCIAL BICYCLE PARKING REQUIRED	1	BIKE PARKING PROVIDED	2		

2 SITE STATISTICS



1 SITE PLAN Scale: 1:250

CONSULTANTS:

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Site Grading and Servicing information is for reference only. Refer to Site Grading Plan Drawing xx and Site Servicing Plan Drawing xx prepared by IBI GROUP, dated XX, 2022, for the purpose of obtaining site grading and servicing information.

Landscaping information is for reference only. Refer to the Landscape Plan Drawings xx prepared by IBI GROUP dated xx, 2022, for full landscape details.

Building classification:
 OBC 3.2.2.42, Group C, Any Height, Any Area, Sprinklered

2022-06-22	COORDINATION	
2021-11-24	01 SPAZBA	
DATE	No.	ISSUE

ARCHITECT:
 TREGBOV COGAN ARCHITECT
 40 St. Clair Avenue East, Suite 303
 Toronto, ON M4T 1M9
 PHONE: 647-352-3360

OWNER:
 REID'S
 Heritage Properties

PROJECT NAME:
 EVOKE

1546 SCOTT STREET OTTAWA, ON
 Based on:
 TOPOGRAPHY SURVEY OF PART OF LOTS 384 (NORTH OF BULLMAN STREET) AND PART OF LOTS 3 & 4 (SOUTH OF SCOTT STREET) REGISTERED PLAN 58 & PART OF LOTS 1290, 1292 & 1303 REGISTERED PLAN 157 CITY OF OTTAWA. PREPARED BY FAIRHILL, MOFFATT & WOODLAND LIMITED, ONTARIO LAND SURVEYORS JAN 21, 2020

DRAWING TITLE:
 SITE PLAN
 CONTEXT PLAN
 SITE STATISTICS

PRINT DATE: 2021-11-24

NORTH	1085	DEV APPLICATION NO:
PROJ. NO.:	1085	DWG NO.:
SCALE:	1:250, AS NOTED	A1.01
DRAWN BY:	MC	SPA AND ZBA



Scale
 NTS

Project Title
 1546 SCOTT STREET

Drawing Title
 SITE PLAN

Sheet No.
 FIGURE 2

Samantha Labadie

From: Tess Gilchrist
Sent: Wednesday, May 11, 2022 4:26 PM
To: Samantha Labadie
Subject: FW: Pre-consultation follow-up - 1546 Scott Street

Tess Gilchrist MCIP RPP

Associate - Manager, Planning

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From: Demetrius Yannoulopoulos <dyannoulopoulos@IBIGroup.com>
Sent: Tuesday, June 15, 2021 8:59 AM
To: Andrew Arklie <aarklie@reidsproperties.com>; Tess Gilchrist <tess.gilchrist@ibigroup.com>; Melissa MacGregor <mmacgregor@reidsproperties.com>
Cc: Scott Reid <scott@reidsproperties.com>; Victor Labreche <Victor.Labreche@ibigroup.com>; David Hook <DHook@IBIGroup.com>
Subject: RE: Pre-consultation follow-up - 1546 Scott Street

All

Had a call yesterday with Shawn Wessel who will be the engineering reviewer on this site, also joining us was Eric Tousignant who is a senior infrastructure manager.

Eric joined us as he is the model keeper for the sanitary system for the City.

Eric advised he did not anticipate any issues with the existing sanitary system accommodating the increase in density, he had reviewed this area in detail a while back and he would look in his files and provide some notes. Eric did note the City does not currently have a mechanism to allocate capacity in the sanitary system, should the development be delayed for a long period of time (years) and other redevelopments in the area receive approval there is always the chance of capacity being used up.

Shawn noted the site would be subject to the typical City infil requirement for Storm water, the site will have to restrict flow from the site such that the 1:100yr flow will be restricted to the equivalent of 1:2 yr event with C=0.5. the usual freeboards (0.3m from openings to max water levels) will be required as will sensitivity review of the extent of the 1:100+20% event.

Due to the proximity of a major watermain (1067Dia) in Scott street and anticipated excavation for underground parking an additional \$25M insurance policy will be required (in addition to the standard \$5M).

Also due to the proximity to the LRT, vibration analysis and monitoring will be required, strongly advise pre and post CCTV of all adjacent infrastructure to note condition of infrastructure in case there is future problems.

In addition to the servicing study, noise (road and stationary), and Wind will be required.

All transportation comments will be provided by Wally

Shaw will prepare formal notes and circulate through the City planner.

Thx
D

Demetrius Yannoulopoulos P.ENG.

Director - Office Lead
mob +1 613 447 0504

A Message from IBI Group's CEO on COVID-19: <https://www.ibigroup.com/covid19-response>

IBI GROUP
400-333 Preston Street
Ottawa ON K1S 5N4 Canada
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NOTE: Ce courriel peut contenir de l'information privilégiée et confidentielle. Si vous avez reçu ce message par erreur, veuillez le mentionner immédiatement à l'expéditeur et effacer ce courriel.

From: Andrew Arklie <aarklie@reidsproperties.com>
Sent: Tuesday, June 15, 2021 7:37 AM
To: Demetrius Yannoulopoulos <dyannoulopoulos@IBIGroup.com>; Tess Gilchrist <tess.gilchrist@ibigroup.com>;
Melissa MacGregor <mmacgregor@reidsproperties.com>
Cc: Scott Reid <scott@reidsproperties.com>; Victor Labreche <Victor.Labreche@ibigroup.com>; David Hook
<DHook@IBIGroup.com>
Subject: RE: Pre-consultation follow-up - 1546 Scott Street

Hi Demetrius,

How was the call yesterday? Do you have an update for us?

Thanks,

Andrew

From: Demetrius Yannoulopoulos <dyannoulopoulos@IBIGroup.com>
Sent: June 11, 2021 8:18 AM
To: Andrew Arklie <aarklie@reidsproperties.com>; Tess Gilchrist <tess.gilchrist@ibigroup.com>; Melissa MacGregor
<mmacgregor@reidsproperties.com>
Cc: Scott Reid <scott@reidsproperties.com>; Victor Labreche <Victor.Labreche@ibigroup.com>; David Hook
<DHook@IBIGroup.com>
Subject: RE: Pre-consultation follow-up - 1546 Scott Street

All
City staff had to reschedule our Friday call to Monday.
Thx
D

Demetrius Yannoulopoulos P.ENG.

APPENDIX B

- Watermain Demand Calculation Sheets
- FUS Calculation
- Boundary Conditions from the City of Ottawa



IBI GROUP
 333 PRESTON STREET
 OTTAWA, ON
 K1S 5N4

WATERMAIN DEMAND CALCULATION SHEET

PROJECT : 1546 Scott Street
 LOCATION : City of Ottawa

FILE: 132902-6.4.4
 DATE PRINTED: 2022-05-11
 DESIGN: 2022-05-11
 PAGE : 1 OF 1

NODE	RESIDENTIAL				NON-RESIDENTIAL			AVERAGE DAILY DEMAND (l/s)			MAXIMUM DAILY DEMAND (l/s)			MAXIMUM HOURLY DEMAND (l/s)			FIRE DEMAND (l/min)
	1-BD	2-BD	3-BD	POP'N	INDTRL (ha.)	COMM. (m ²)	RETAIL (m ²)	Res.	Non-res.	Total	Res.	Non-res.	Total	Res.	Non-res.	Total	
BUILDING	138	92		386		200		1.25	0.01	1.26	3.13	0.01	3.14	6.89	0.02	6.91	5,000

ASSUMPTIONS

<p>RESIDENTIAL DENSITIES</p> <p>Apartment (1 Bedroom) 1.4 p / p / u Apartment (2 Bedroom) 2.1 p / p / u Apartment (3 Bedroom) p / p / u</p> <p>** Residential Daily Demand reduced to coincide with current waste water guidelines</p>	<p>AVG. DAILY DEMAND</p> <p>Residential:** 280 l / cap / day Industrial: 1 / ha / day Commercial: 2,800 l / 1000m² / day Retail: 2,500 l / 1000m² / day</p> <p>MAX. DAILY DEMAND</p> <p>Residential: 700 l / cap / day Industrial: 1 / ha / day Commercial: 4,200 l / ha / day Retail: 3,750 l / 1000m² / day</p>	<p>MAX. HOURLY DEMAND</p> <p>Residential: 1,540 l / cap / day Industrial: 1 / ha / day Commercial: 7,560 l / ha / day Retail: 6,750 l / 1000m² / day</p> <p>FIRE FLOW</p> <p>From FUS Calculation 5,000 l / min</p>
---	--	---

Fire Flow Requirement from Fire Underwriters Survey

1546 Scott Street

Total Floor Area 4,765 m²

$F = 220C\sqrt{A}$

C 0.6 C = 1.5 wood frame
 A 4,765 m² 1.0 ordinary
 0.8 non-combustible
 F 9,111 l/min 0.6 fire-resistive
 use 9,000 l/min

Occupancy Adjustment -25% non-combustible
 -15% limited combustible
 Use -15% 0% combustible
 +15% free burning
 Adjustment -1350 l/min +25% rapid burning
 Fire flow 7,650 l/min

Sprinkler Adjustment -30% system conforming to NFPA 13
 -50% complete automatic system
 Use -30%
 Adjustment -2295 l/min

Exposure Adjustment

Building Face	Separation (m)	Adjacent Exposed Wall			Exposure Charge *
		Length	Stories	L*H Factor	
north		Lower elevation			0%
east		Lower elevation			0%
south		Lower elevation			0%
west		Lower elevation			0%

Total
 Adjustment - l/min

Total adjustments (2,295) l/min
 Fire flow 5,355 l/min
Use 5,000 l/min
83 l/s

Floor	Area (m ²)	Two Largest Floors	Floors Above at 50%
3	966	966	
4	966	966	
5	660		330
6	715		358
7	715		358
8	715		358
9	715		358
10	715		358
11	715		358
12	715		358
Total	7597		4765

(Note: For fire-resistive buildings, consider two largest adjoining floors plus 50% of each of any floors immediately above them up to eight.)

0% (Note: According to Page G-104 in Tech bulletin ISTB-2018-02 Revisions to Ottawa Design Guidelines - Water Distribution, "If the exposing wall of the building being considered is taller than the exposed wall of the adjacent structure, no exposure charge applies".)

Samantha Labadie

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: Tuesday, May 17, 2022 2:05 PM
To: Samantha Labadie
Cc: Jhamb, Nishant
Subject: 1546 Scott St - Boundary Condition Request
Attachments: 1546 Scott Street May 2022.pdf

Good afternoon, Sam

Please find boundary conditions for 1546 Scott St.:

I believe Nishant is the PM on this project.

The following are boundary conditions, HGL, for hydraulic analysis at 1546 Scott Street (zone 1W) assumed to be a dual connection to the proposed extension of the 203 mm watermain on Scott Street (see attached PDF for location).

Minimum HGL: 108.1 m

Maximum HGL: 115.1 m

Max Day + Fire Flow (83 L/s): 108.0 m

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

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

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

Boundary Conditions for 1546 Scott Street

Proposed 203 mm Extension



N

Legend

- Proposed Watermain Extension
- PRIVATE
- PUBLIC

APPENDIX C

- Sanitary Sewer Design Sheet

APPENDIX D

- Storm Sewer Design Sheet
- Stormwater Management Calculations
- Drawing 132902 C-500 – Storm Drainage Area Plan



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 tel 613 225 1311 fax 613 225 9868
 ibigroup.com

STORM SEWER DESIGN SHEET

1546 Scott Street
 City of Ottawa
 Reid's Heritage Properties

LOCATION				AREA (Ha)										RATIONAL DESIGN FLOW										SEWER DATA																
STREET	AREA ID	FROM	TO	C=	C=	C=	C=	C=	C=	C=	C=	C=	C=	IND 2.78AC	CUM 2.78AC	INLET (min)	TIME IN PIPE	TOTAL (min)	i (2)	i (5)	i (10)	i (100)	2yr PEAK FLOW (L/s)	5yr PEAK FLOW (L/s)	10yr PEAK FLOW (L/s)	100yr PEAK FLOW (L/s)	FIXED FLOW		DESIGN FLOW (L/s)	CAPACITY (L/s)	LENGTH (m)	PIPE SIZE (mm)			SLOPE (%)	VELOCITY (m/s)	AVAIL CAP (2yr)			
				0.20	0.25	0.30	0.50	0.57	0.60	0.69	0.70	0.77	0.90						(mm/hr)	(mm/hr)	(mm/hr)	(mm/hr)					IND	CUM				DIA	W	H			(L/s)	(%)		
1546 Scott Street	Cistern	MH1	Main											0.25	0.63	0.63	10.00	0.19	10.19	76.81	104.19	122.14	178.56	48.04	65.17	76.40	111.69	0.00	#REF!	48.04	62.04	14.12	250				1.00	1.224	14.00	22.56%
Definitions: Q = 2.78CIA, where: Q = Peak Flow in Litres per Second (L/s) A = Area in Hectares (Ha) i = Rainfall intensity in millimeters per hour (mm/hr) [i = 732.951 / (TC+6.199)^0.810] 2 YEAR [i = 998.071 / (TC+6.053)^0.814] 5 YEAR [i = 1174.184 / (TC+6.014)^0.816] 10 YEAR [i = 1735.688 / (TC+6.014)^0.820] 100 YEAR				Notes: 1. Mannings coefficient (n) = 0.013										Designed: JEB										No.		Revision				Date										
														Checked: DY										1.		Issued for Site Plan Application				2021-11-24										
														Dwg. Reference: 132902.C-500																										
																								File Reference: 132902.6.04		Date: 2021-11-24				Sheet No: 1 of 1										



IBI GROUP
333 PRESTON STREET
OTTAWA, ON
K1S 5N4

PROJECT: 1546 Scott Street
DATE: 2022-05-13
FILE: 132902.6.04
REV #: 1
DESIGNED BY: SL
CHECKED BY: DY

STORMWATER MANAGEMENT

Formulas and Descriptions

$i_{2yr} = 1.2 \text{ year Intensity} = 732.951 / (T_c + 6.199)^{0.810}$
 $i_{5yr} = 1.5 \text{ year Intensity} = 998.071 / (T_c + 6.053)^{0.814}$
 $i_{100yr} = 1:100 \text{ year Intensity} = 1735.688 / (T_c + 6.014)^{0.820}$
 $T_c = \text{Time of Concentration (min)}$
 $C = \text{Average Runoff Coefficient}$
 $A = \text{Area (Ha)}$
 $Q = \text{Flow} = 2.78CiA \text{ (L/s)}$

Maximum Allowable Release Rate

Flow Allocation

$C = 0.5 \text{ (Pre-Development)}$
 $T_c = 10 \text{ min}$
 $i_{2yr} = 76.81 \text{ mm/hr}$
 $A_{TOTAL} = 0.25 \text{ Ha}$

$Q_{TOTAL} = 27.01 \text{ L/s}$

Uncontrolled Release ($Q_{uncontrolled} = 2.78 \cdot C^2 \cdot i_{100yr} \cdot A_{uncontrolled}$)

$C = 1.00$
 $T_c = 10 \text{ min}$
 $i_{100yr} = 178.56 \text{ mm/hr}$
 $A_{uncontrolled} = 0.006 \text{ Ha}$

$Q_{uncontrolled} = 2.98 \text{ L/s}$

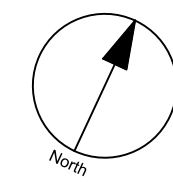
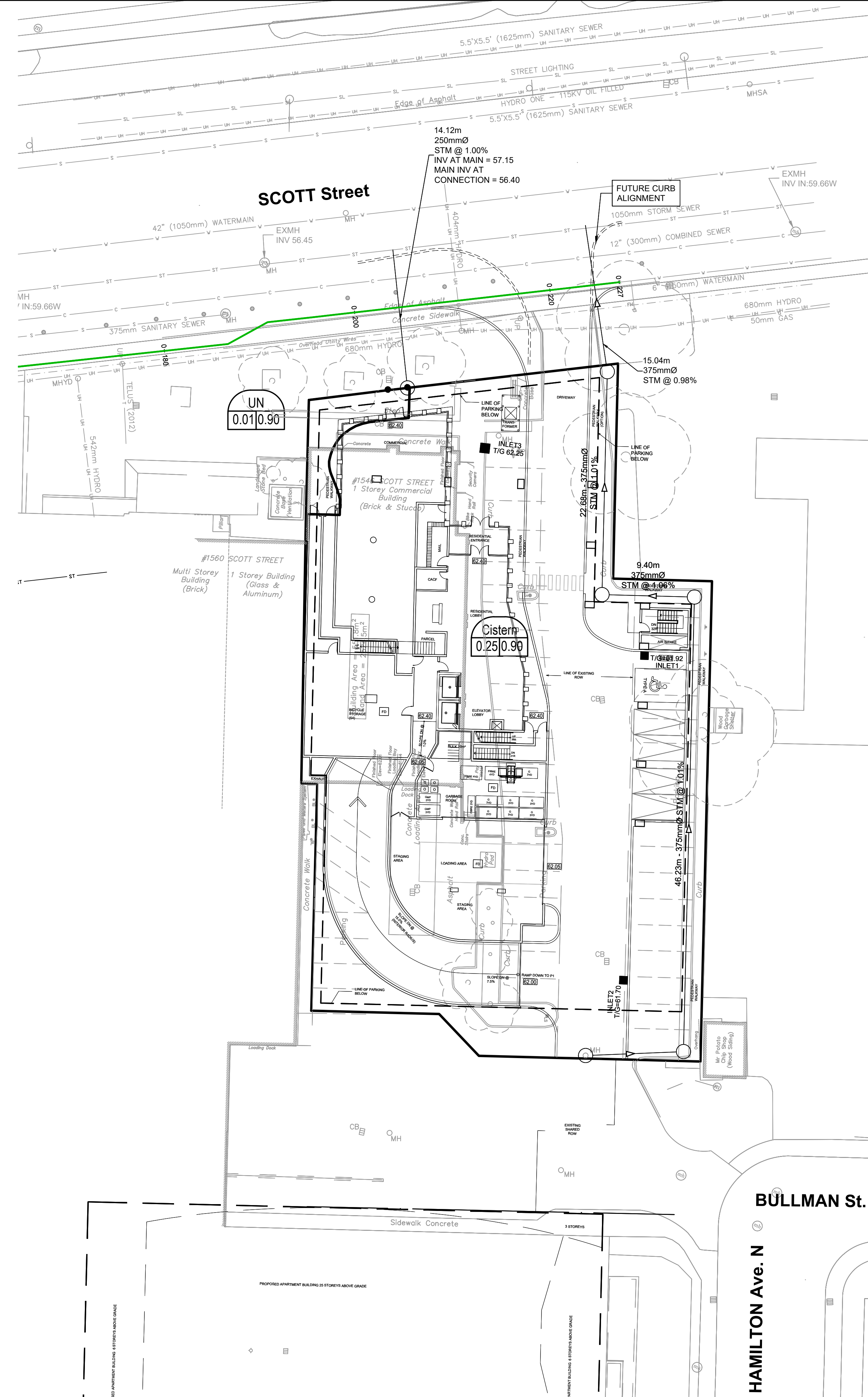
Maximum Allowable Release Rate ($Q_{max \text{ allowable}} = Q_{restricted} - Q_{uncontrolled}$)

$Q_{max \text{ allowable}} = 24.03 \text{ L/s}$

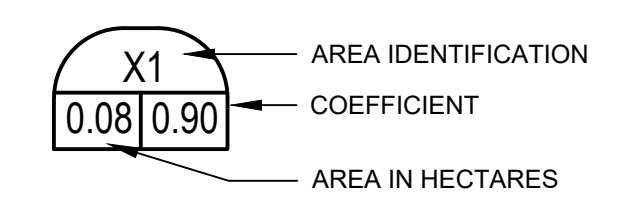
MODIFIED RATIONAL METHOD (100-Year & 5-Year Ponding)

Drainage Area		Cistern			
Area (Ha)	0.250				
C =	1.00	Restricted Flow Q_r (L/s)=	24.00		
100-Year Ponding					
T_c Variable (min)	i_{100yr} (mm/hour)	Peak Flow $Q_p = 2.78 \times C^2 \cdot i_{100yr} \cdot A$ (L/s)	Q_r (L/s)	$Q_p - Q_r$ (L/s)	Volume 100yr (m^3)
46	67.96	47.23	12.00	35.23	97.24
48	65.89	45.79	12.00	33.79	97.32
49	64.91	45.11	12.00	33.11	97.34
50	63.95	44.45	12.00	32.45	97.34
52	62.14	43.19	12.00	31.19	97.31
Storage (m^3)					
Overflow	0.00	Required	97.34	Roof	0.00
				Cistern	100.00
				Balance	0.00

Drainage Area		Cistern			
Area (Ha)	0.250				
C =	0.90	Restricted Flow Q_r (L/s)=	24.00		
5-Year Ponding					
T_c Variable (min)	i_{5yr} (mm/hour)	Peak Flow $Q_p = 2.78 \times C^2 \cdot i_{5yr} \cdot A$ (L/s)	Q_r (L/s)	$Q_p - Q_r$ (L/s)	Volume 5yr (m^3)
24	62.54	39.12	12.00	27.12	39.05
26	59.35	37.12	12.00	25.12	39.19
27	57.88	36.20	12.00	24.20	39.21
28	56.49	35.34	12.00	23.34	39.20
30	53.93	33.73	12.00	21.73	39.12
Storage (m^3)					
Overflow	0.00	Required	39.21	Roof	0.00
				Cistern	100.00
				Balance	0.00



LEGEND:



CLIENT

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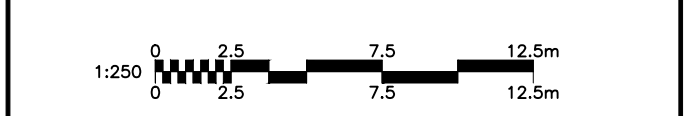
ISSUES

No.	DESCRIPTION	DATE
1	ISSUED FOR SPA	2021-11-24
2	REVISED PER CITY COMMENTS	2022-07-28
2	REVISED PER NEW SITE PLAN	2022-08-05

SEE 010 FOR NOTES, LEGEND, CB TABLE, STREET SECTIONS AND DETAILS



CONSULTANTS



SEAL

IBI GROUP
 Suite 400 - 333 Preston Street
 Ottawa ON K1S 5N4 Canada
 Tel: 613 225 1311 / 613 241 3300 Fax: 613 225 9868
 ibigroup.com

PROJECT
EVOKE
 1546 Scott Street, Ottawa

PROJECT NO:
 132902

DRAWN BY: D.D. **CHECKED BY:** J.B.
PROJECT MGR: D.G.Y. **APPROVED BY:** J.B.

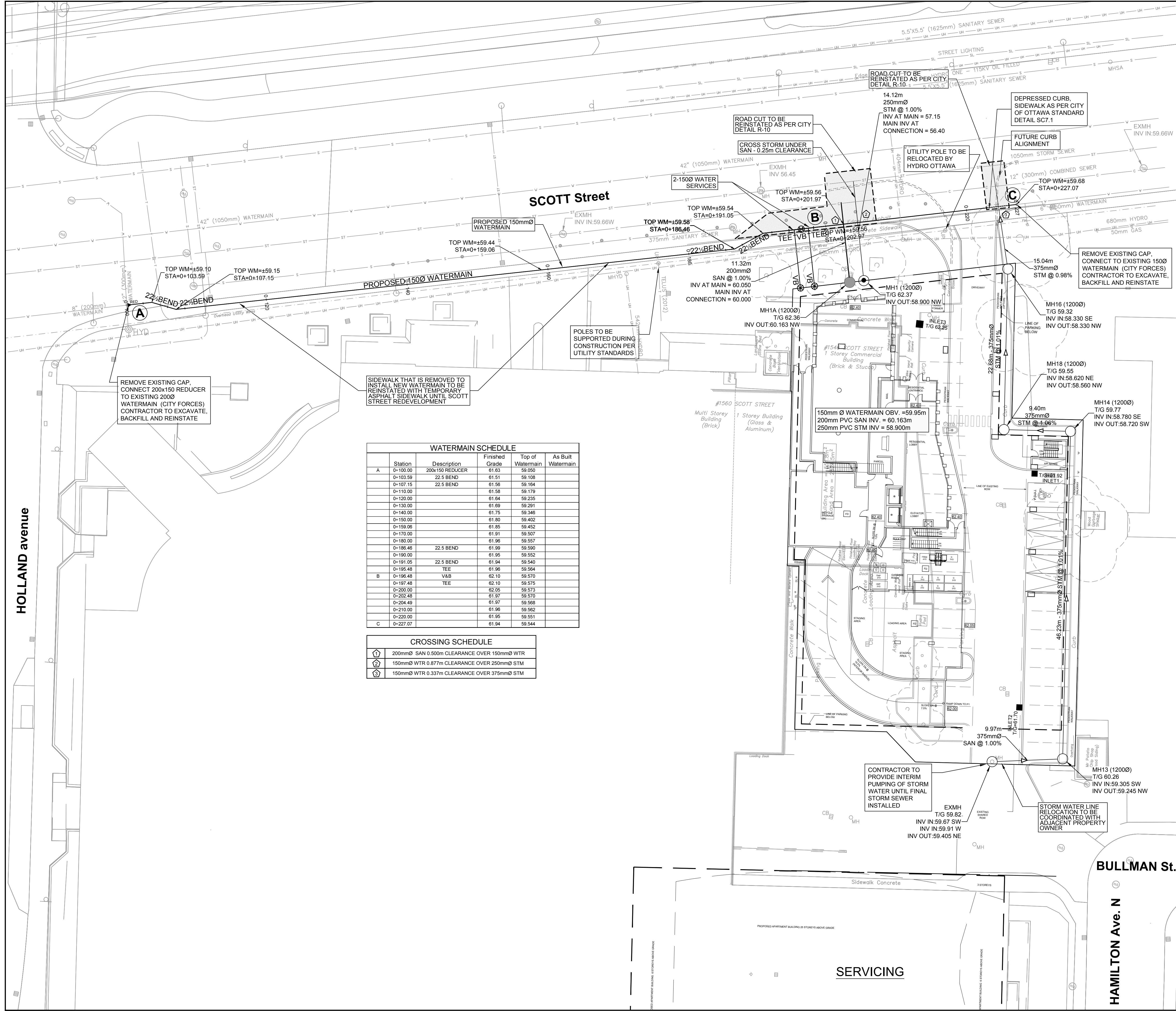
SHEET TITLE
STORM DRAINAGE AREA PLAN

SHEET NUMBER C-500 **ISSUE** 2

CITY FILE No. D02-02-21-0148

APPENDIX E

- Drawing 132902 C-001 – General Plan of Services
- Drawing 132902 C-200 – Site Grading Plan
- Drawing 132902 C-900 – Erosion and Sedimentation Control Plan



LEGEND

F.F. = 80.50	FINISHED FLOOR ELEVATION
(M)	WATER METER (SEE MECH. DRAWG. FOR EXACT LOCATION)
(RM)	REMOTE WATER METER (SEE MECH. DRAWG. FOR EXACT LOCATION)
(S)	SIAMSE CONNECTIONS (SEE MECH. DRAWG. FOR EXACT LOCATION)
(G)	GAS SERVICE
(R)	RETAINING WALL CW TOP OF WALL AND GRASS GRADE
(V&V)	VALVE AND VALVE BOX
(V&VC)	VALVE AND VALVE CHAMBER
(W)	WATER SERVICE
(S&S)	SANITARY SEWER SERVICE
(SS)	STORM SEWER SERVICE
(E)	EXISTING CURB
(CB)	EXISTING CATCHBASIN
(WV)	EXISTING WATER VALVE
(LS)	EXISTING LAMP STANDARD
(UP)	EXISTING UTILITY POLE
(FH)	EXISTING FIRE HYDRANT
(MH)	EXISTING MANHOLE
(S)	EXISTING SIGN
(BL)	EXISTING BOLLARDS
(D)	EXISTING DECIDUOUS TREE
(S)	EXISTING SANITARY SEWER
(SS)	EXISTING STORM SEWER
(W)	EXISTING WATERMAIN
(G)	EXISTING GAS LINE
(UH)	EXISTING HYDRO EXISTING
(O)	EXISTING OVERHEAD UTILITY WIRES
(C)	EXISTING COMBINED SEWER
(SL)	EXISTING STREET LIGHTING

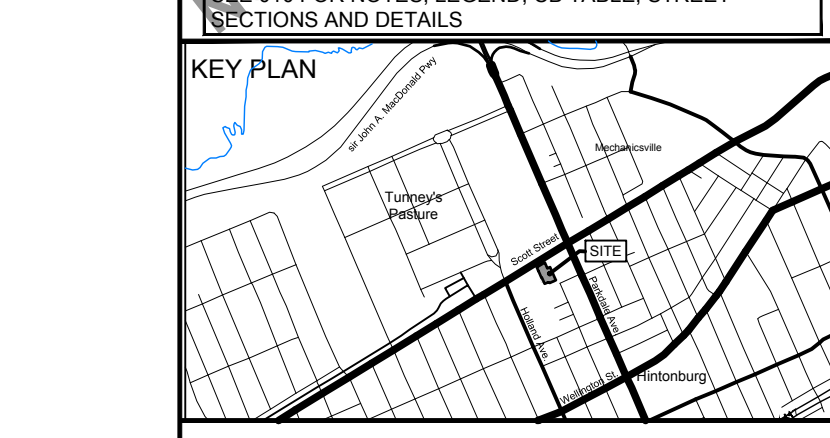
CLIENT
Reid's Heritage Properties
 1515 Gordon Street, Suite 203, Guelph, ON, N1L 1C9

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ISSUES

No.	DESCRIPTION	DATE
1	ISSUED FOR SPA	2021-11-24
2	REVISED PER CITY COMMENTS	2022-07-26
2	REVISED PER NEW SITE PLAN	2022-08-05



CONSULTANTS

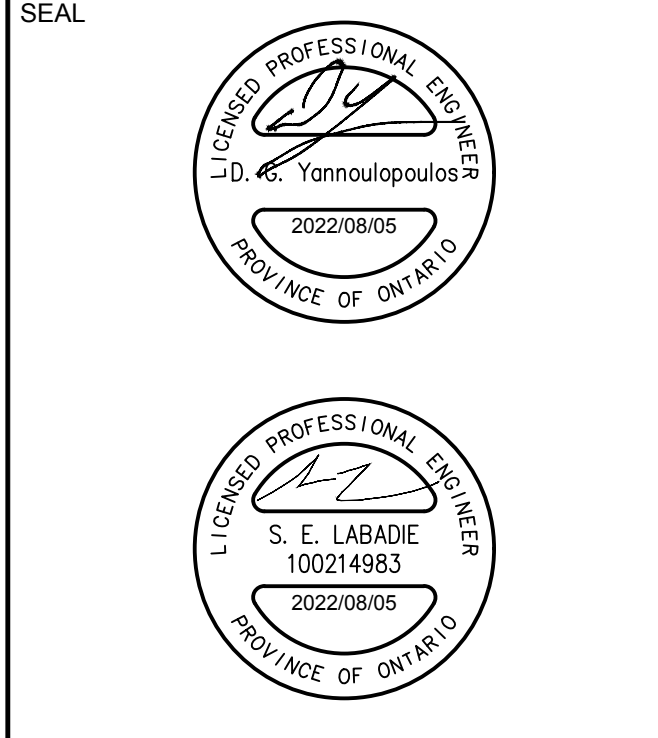
WATERMAIN SCHEDULE

Station	Description	Finished Grade	Top of Watermain	As Built Watermain
A 0+100.00	200x150 REDUCER	61.83	59.050	
0+103.59	22.5 BEND	61.51	59.108	
0+107.15	22.5 BEND	61.56	59.164	
0+110.00		61.58	59.179	
0+120.00		61.64	59.235	
0+130.00		61.69	59.291	
0+140.00		61.75	59.346	
0+150.00		61.80	59.402	
0+159.06		61.85	59.452	
0+170.00		61.91	59.507	
0+180.00		61.96	59.557	
0+186.46	22.5 BEND	61.99	59.590	
0+190.00		61.95	59.552	
0+191.05	22.5 BEND	61.94	59.540	
0+195.48	TEE	61.96	59.564	
B 0+196.48	V&B	62.10	59.570	
0+197.48	TEE	62.10	59.575	
0+200.00		62.05	59.573	
0+202.48		61.97	59.570	
0+204.49		61.97	59.568	
0+210.00		61.96	59.562	
0+220.00		61.95	59.551	
C 0+227.07		61.94	59.544	

CROSSING SCHEDULE

(1)	200mm Ø SAN 0.500m CLEARANCE OVER 150mm Ø WTR
(2)	150mm Ø WTR 0.877m CLEARANCE OVER 250mm Ø STM
(3)	150mm Ø WTR 0.337m CLEARANCE OVER 375mm Ø STM

- NOTES:**
- ALL WORKS TO BE COMPLETED AS PER CURRENT CITY OF OTTAWA STANDARDS AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS.
 - SEWER LATERALS TO BE PVC DR 35.
 - WATER MAIN AND SERVICES TO BE PVC DR 18 CL 150. MINIMUM COVER OF 2.4m FOR WATER SERVICE IS REQUIRED. USE THERMAL INSULATION AS PER CITY STANDARDS WHEN COVER IS LESS THAN 2.4m. WATER MAIN AND SERVICES TO HAVE RESTRAINTS AND THRUST BLOCKS AS PER CITY STD W23, W25.5 AND W25.6. NEW WATER MAIN TO HAVE TRACING WIRE PER STD W36.
 - ALL SERVICE LATERAL AND SURFACE RESTORATION WORK IN ACCORDANCE WITH CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
 - FULL PORT BACKWATER VALVE IS REQUIRED ON BOTH THE SANITARY AND STORM SERVICE CONNECTIONS.
 - WATER SERVICE CHLORINATION AND TESTING TO BE COMPLETED BY CITY FORCES.
 - BUILDING INFORMATION TAKEN FROM TREGEBOW COGAN ARCHITECTS DRAWINGS.
 - AN EROSION AND SEDIMENTATION CONTROL PLAN WILL BE IMPLEMENTED ON THIS SITE. AS A MINIMUM THAT PLAN WILL INCLUDE A LIGHT DUTY SILT FENCE BARRIER TO CPSD STANDARD 219.110 SURROUNDING THE SITE WHERE PRACTICAL AND SILT SACKS FITTED UNDER EXISTING STREET CATCH BASINS.
 - ALL SHOWN UTILITIES ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED BY CONTRACTOR. ANY DISCREPANCIES ARE TO BE REPORTED TO IBI GROUP PRIOR TO CONTRACTOR MOBILIZING TO SITE.
 - CONTRACTOR RESPONSIBLE TO SUPPORT EXISTING UTILITIES THAT MAY BE AFFECTED DURING CONSTRUCTION.
 - EXISTING CURBS AND SIDEWALKS ARE TO BE REMOVED AND REPLACED AS NOTED ON THE DRAWINGS.
 - THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATER COURSE. DURING CONSTRUCTION ACTIVITIES THIS INCLUDES LIMITING THE AMOUNT OF EXPOSED SOIL, USING FILTER CLOTH UNDER THE GRATES OF CATCHBASINS AND MANHOLES AND INSTALLING SILT FENCES AND EFFECTIVE SEDIMENT TRAPS. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCIES.
 - FOR GEOTECHNICAL INFORMATION SEE REPORT 47-CEI-R1BY YURI MENDEZ ENGINEERING.
 - CLAY SEAL TO BE INSTALLED IN SERVICE TRENCHES BETWEEN CONNECTION POINT AND CAP.



IBI GROUP
 Suite 400 - 333 Preston Street
 Ottawa, ON K1S 5N4 Canada
 Tel: 613 225 1311 / 613 241 3300 Fax: 613 225 9868
 ibigroup.com

PROJECT
EVOKE
 1546 Scott Street, Ottawa

PROJECT NO:
 132902

DRAWN BY:
 D.D.

CHECKED BY:
 J.B.

PROJECT MGR:
 D.G.Y.

APPROVED BY:
 J.B.

SHEET TITLE
GENERAL PLAN OF SERVICES

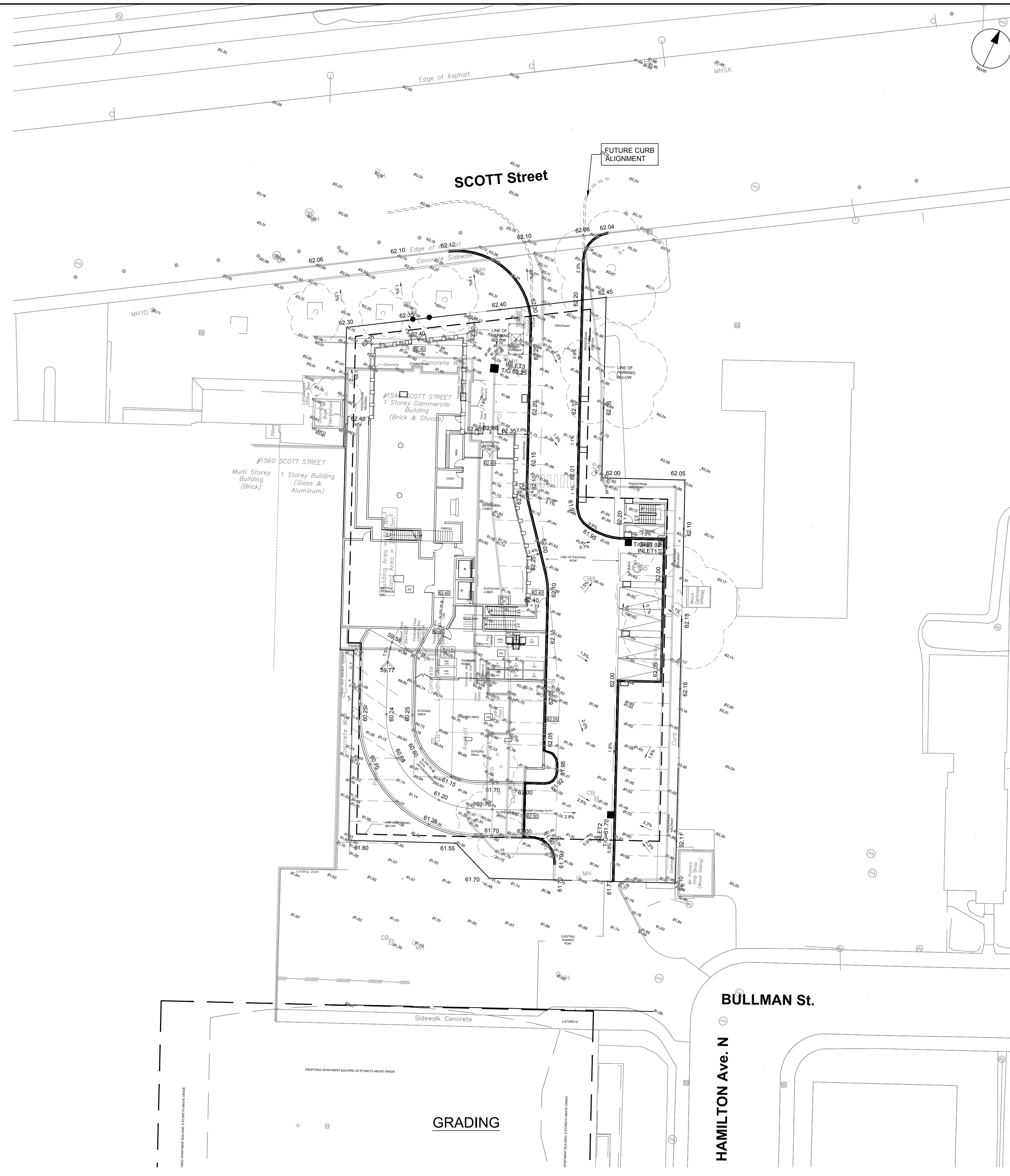
SHEET NUMBER
C-001

ISSUE
2

HOLLAND AVENUE

BULLMAN ST.
 HAMILTON AVE. N

CITY FILE No. D02-02-21-0148
 SCALE CHECK
 File Location: W:\132902_1546_Scott_0_Production\02_Design\04_Civil\Sheets\C-001_GENERAL_PLAN_OF_SERVICES.dwg Last Saved: July 7, 2022, by: dore. Plotted: Friday, August 5, 2022 9:49:40 AM by Samantha Labadie



CLIENT
Reid's Heritage Properties
REID'S
 Heritage Properties
 1515 Gordon Street, Suite 203, Guelph, ON, N1L 1C9

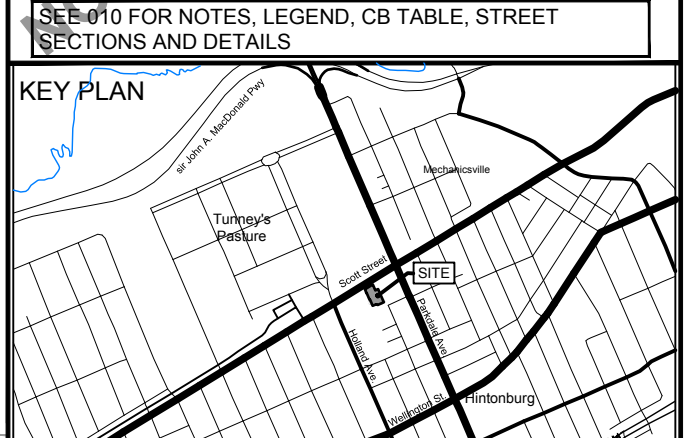
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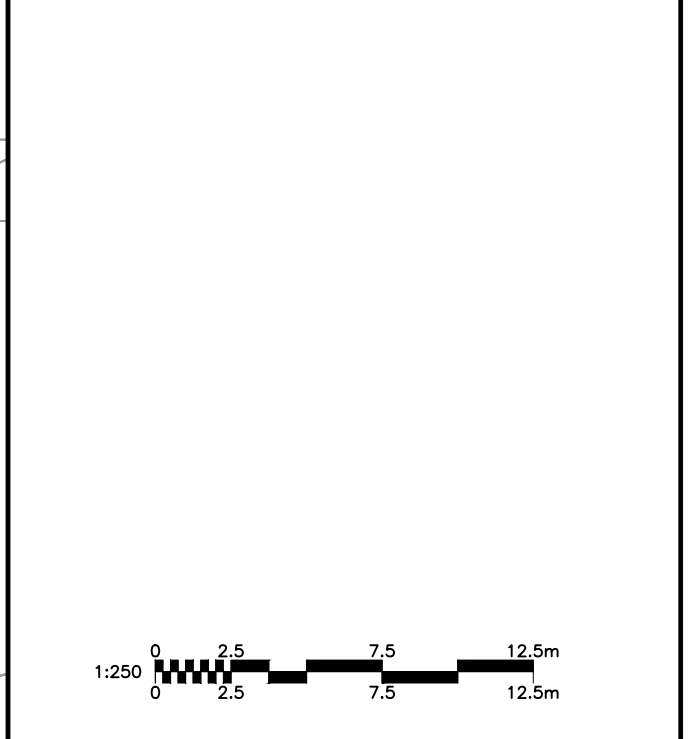
ISSUES

No.	DESCRIPTION	DATE
1	ISSUED FOR SPA	2021-11-24
2	REVISED PER CITY COMMENTS	2022-07-28
2	REVISED PER NEW SITE PLAN	2022-08-05

SEE 010 FOR NOTES, LEGEND, CB TABLE, STREET SECTIONS AND DETAILS



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PROJECT
EVOKE
 1546 Scott Street, Ottawa

PROJECT NO:
132902

DRAWN BY:
D.D.

PROJECT MGR:
D.G.Y.

CHECKED BY:
J.B.

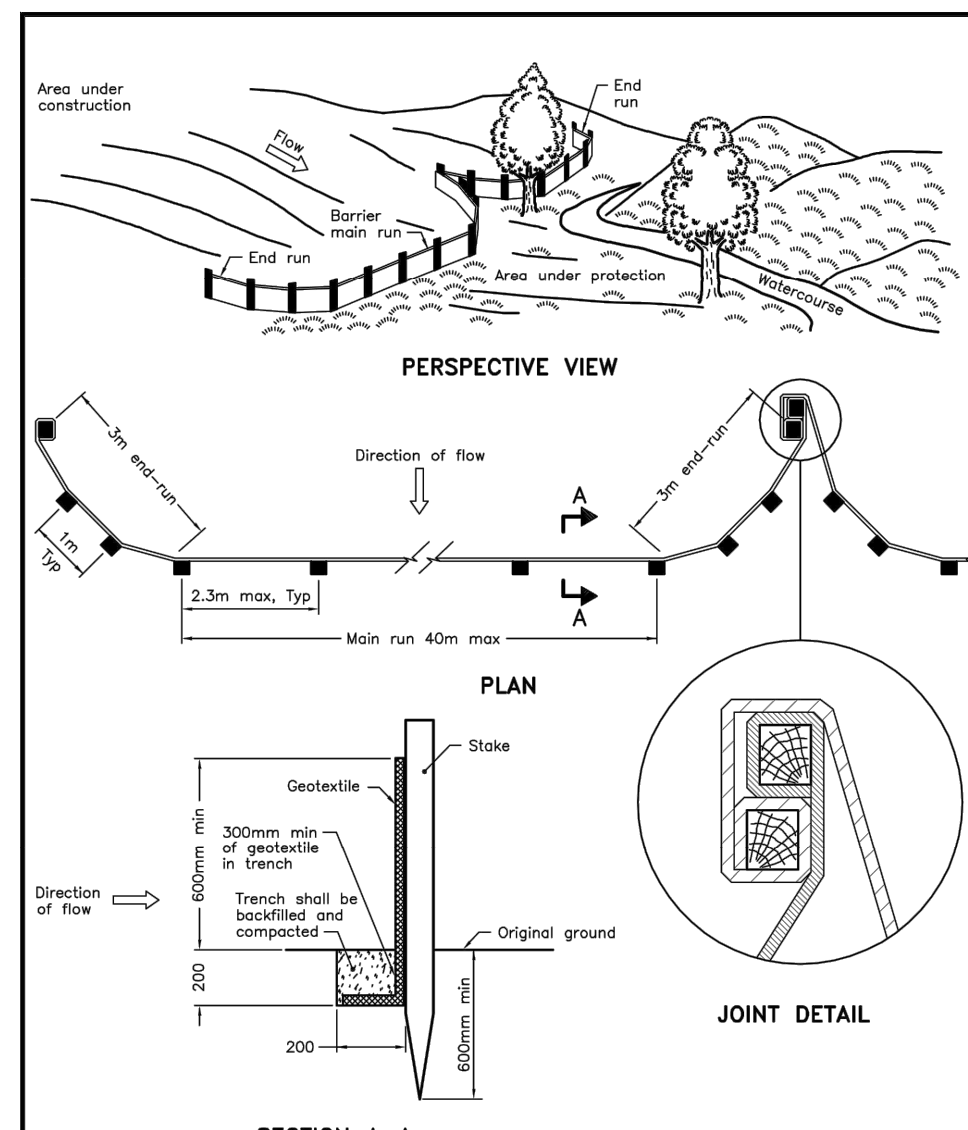
APPROVED BY:
J.B.

SHEET TITLE
GRADING PLAN

SHEET NUMBER
C-200

ISSUE
2

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 SCALE CHECK
CITY FILE No. D02-02-21-0148



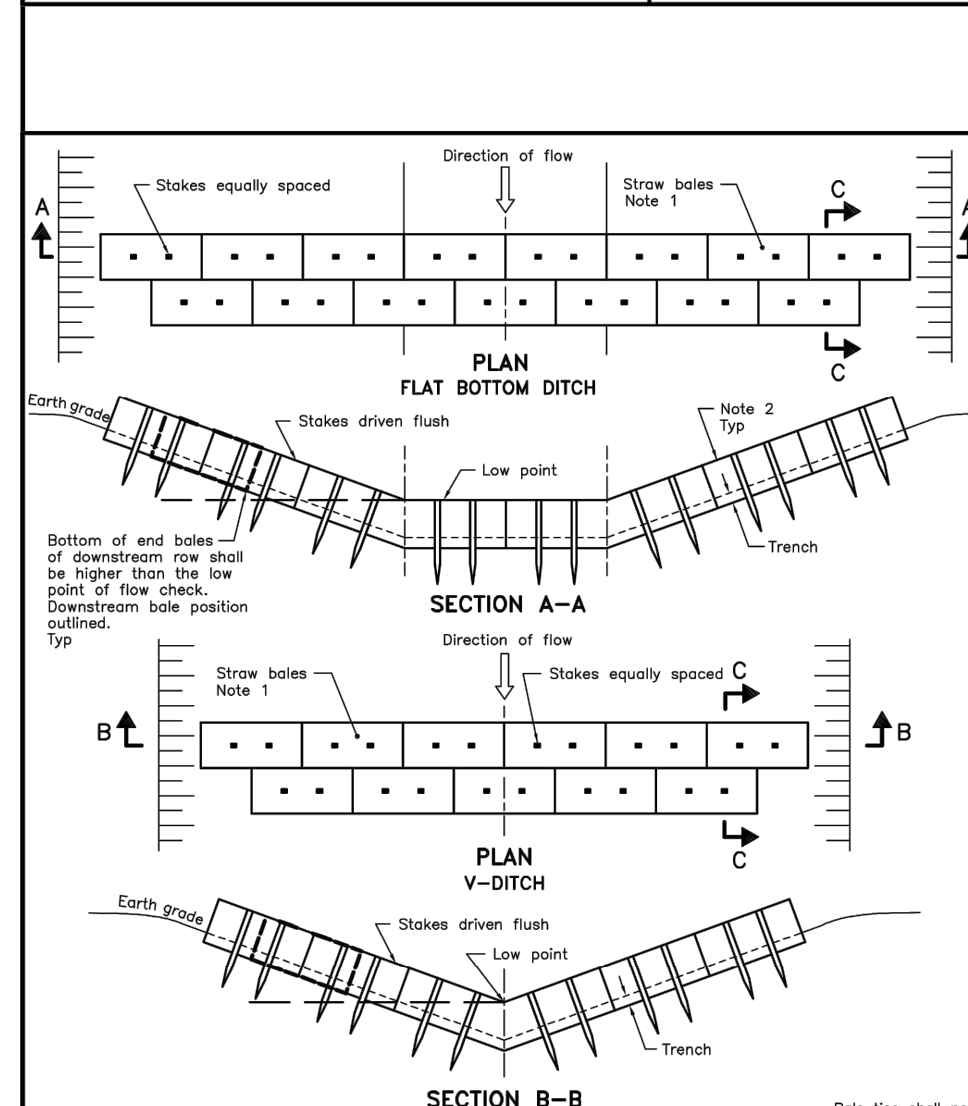
SECTION A-A

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

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 2

LIGHT-DUTY SILT FENCE BARRIER

OPSD 219.110



SECTION A-A

SECTION B-B

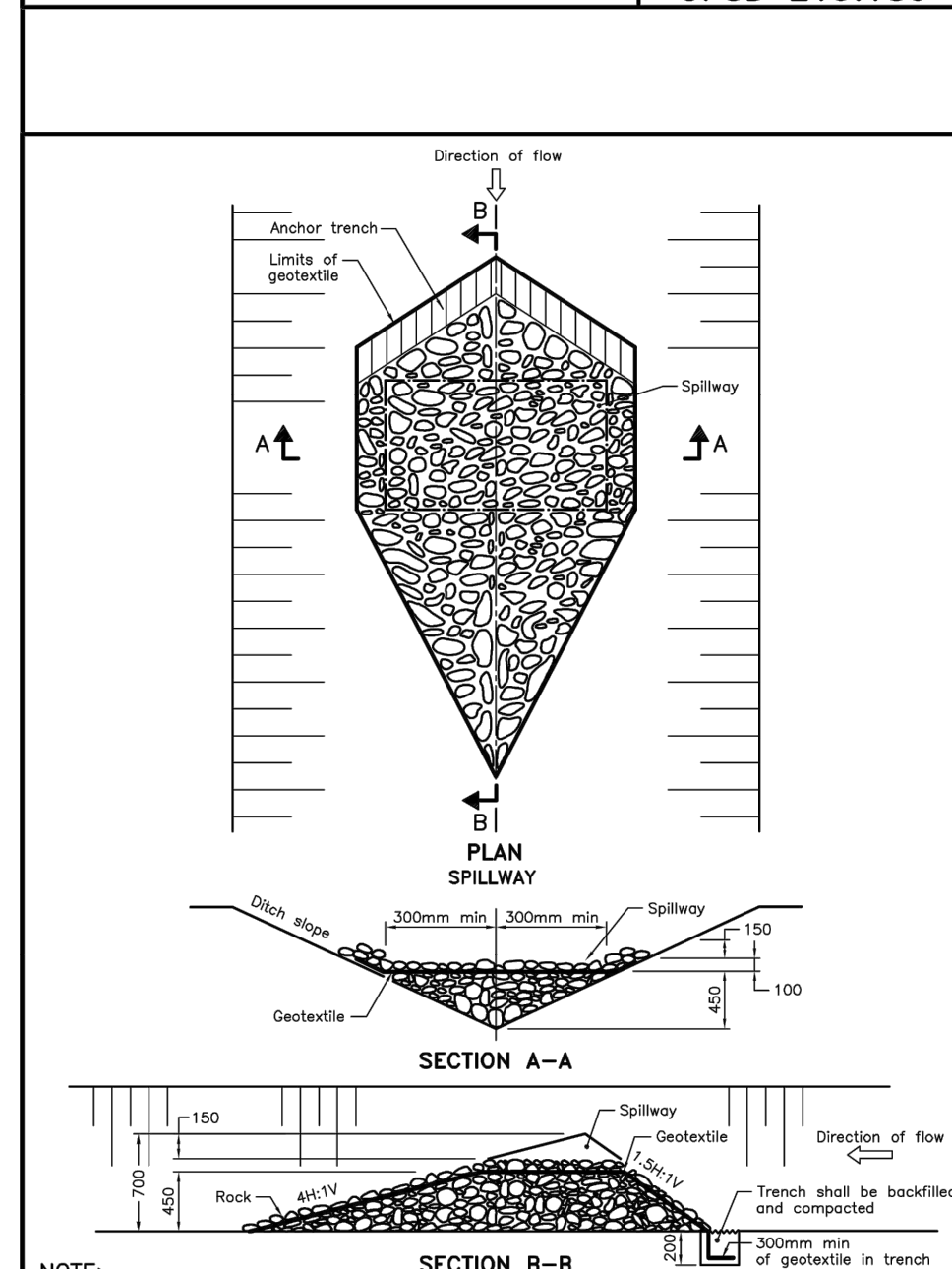
SECTION C-C

NOTE:
1 Number of bales varies and shall suit ditch.
2 Straw bales shall be butted tightly against adjoining bales and shaped to conform to the sides of the ditch to prevent water flow through barrier.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 2

STRAW BALE FLOW CHECK DAM

OPSD 219.180



SECTION A-A

SECTION B-B

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

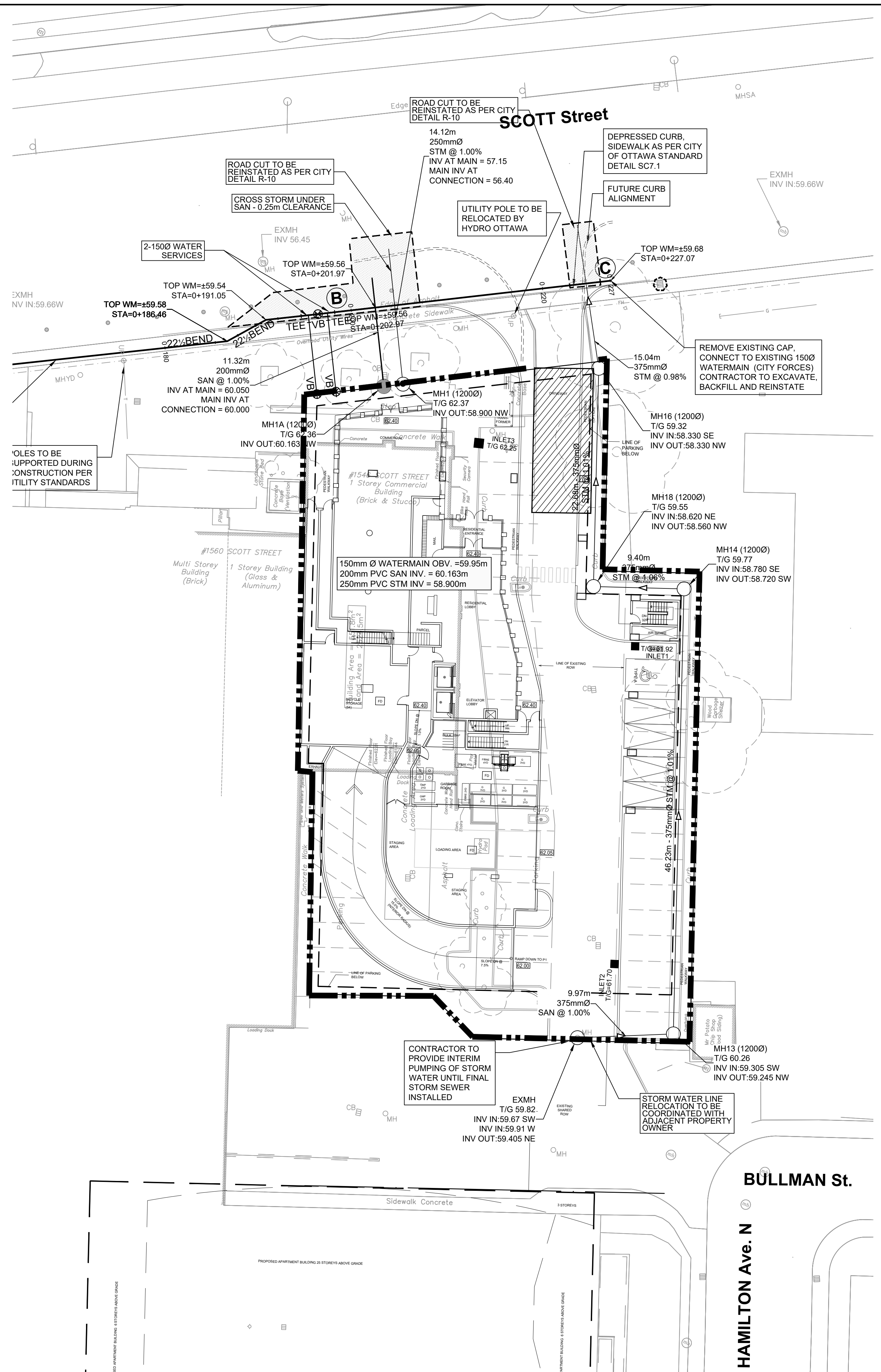
ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 2

TEMPORARY ROCK FLOW CHECK DAM V-DITCH

OPSD 219.210

- NOTES:**
- 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.
 - SILT FENCE TO BE ERECTED PRIOR TO EARTH WORKS BEING COMMENCED. SILT FENCE TO BE MAINTAINED UNTIL VEGETATION IS ESTABLISHED OR UNTIL START OF SUBSEQUENT PHASE.
 - SILT SACK TO BE PLACED AND MAINTAINED UNDER COVER OF ALL CATCHBASINS. GEOTEXTILE SILT SACK IN STREET CBs TO REMAIN UNTIL ALL CURBS ARE CONSTRUCTED. GEOTEXTILE FABRIC IN RYCBs TO REMAIN UNTIL VEGETATION IS ESTABLISHED. ALL CATCHBASINS TO BE REGULARLY INSPECTED AND CLEANED, AS NECESSARY, UNTIL SOD AND CURBS ARE CONSTRUCTED.
 - WORKS NOTED ABOVE ARE TO BE INSTALLED, INSPECTED, MAINTAINED AND ULTIMATELY REMOVED BY SERVICING CONTRACTOR.
 - THIS IS A "LIVING DOCUMENT" AND MAY BE MODIFIED IN THE EVENT THE PROPOSED CONTROL MEASURES ARE INSUFFICIENT
 - SEE DRAWING C-010 FOR ADDITIONAL DETAILS AND NOTES.

- LEGEND:**
- LIGHT DUTY SILT FENCE AS PER OPSD-219.110
 - SNOW FENCE
 - STRAW BALE CHECK DAM AS PER OPSD-219.180
 - ROCK CHECK DAM AS PER OPSD-219.210
 - SILT SACK PLACED UNDER EXISTING CB COVER
 - TEMPORARY MUD MAT 0.15m THICK 50mm CLEAR STONE ON NON WOVEN FILTER CLOTH



CLIENT

REID'S
Heritage Properties

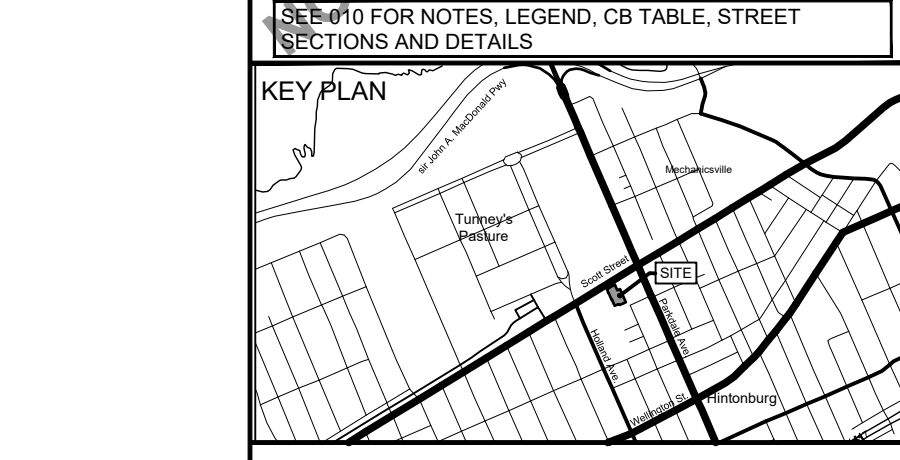
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ISSUES

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CONSULTANTS

1:500

0 5 10 15 20 25m

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SHEET TITLE

EROSION AND SEDIMENT CONTROL PLAN

SHEET NUMBER
C-900

ISSUE
2

CITY FILE No. D02-02-21-0148

FILE LOCATION: W:\132902_1546_Scott_0_Production\02_Design\04_Civil\Sheets\C-900 EROSION AND SEDIMENT CONTROL PLAN.dwg Last Saved: July 7, 2022, by: ddore

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CITY PLAN No. 18666