1472 Dundas Street, City of London

Functional Servicing and Stormwater Management Report

January 2024

Submitted by:

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Submission History

Submission	Date	In Support Of	Distributed To
1st	January, 2024	Official Plan Amendment and Re-Zoning Application	City of London

1.0 Introduction

SCS Consulting Group Ltd. has been retained by 2288711 Ontario Inc. to prepare a Functional Servicing and Stormwater Management (SWM) Report for a proposed mixed-use residential and commercial development located at 1472 Dundas Street in the City of London of Middlesex County.

1.1 Purpose of the Report

The Functional Servicing and SWM Report has been prepared in support of the Official Plan Amendment and Re-Zoning Application for the proposed development. The Site Plan is provided in **Appendix A**.

The purpose of this report is to demonstrate that the proposed development can be accommodated by the external storm, sanitary and water infrastructure and to establish servicing and grading expectations for the future site plan application in accordance with the City of London, Middlesex County, Upper Thames River Conservation Authority, the Ontario Building Code, and the Ministry of Environment, Conservation and Parks (MECP) design criteria.

1.2 Study Area

The proposed development is comprised of mixed-use mid-rise condominium located within the Upper Thames River Watershed in the City of London. As shown on **Figure 1.1**, the study area is bound by:

- Existing CN Railway to the north;
- Existing commercial development and Pottersburg Creek to the east;
- Dundas Street and existing commercial to the south; and,
- Existing green space to the west.

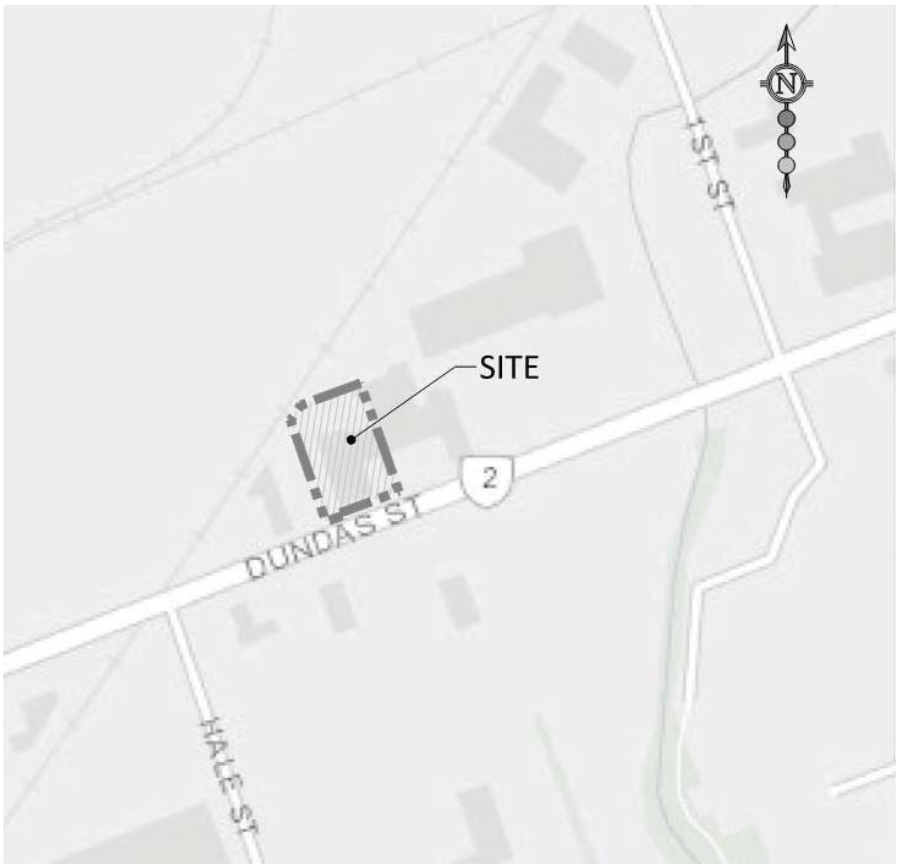

Figure 1.1: Site Location Plan

The study area is approximately 1.00 ha in size and is proposed to consist of a 9 floor residential apartment development with mixed commercial and residential space on the ground floor. A private driveway and parking are also proposed (refer to the Site Plan in **Appendix A**). Access to the proposed development is proposed from Dundas Street.

It should be noted that due to the existing CN Railway to the north of the study area, a rail consultant will be retained at the detailed design stage of the project for Site Plan Application to determine the requirements associated with the railway corridor.

1.3 Background Servicing Information

In preparation of the site servicing and SWM Strategies, the following design guidelines and standards were used.

- Design Specification and Requirements Manual, March 2022, prepared by City of London (Ontario)
- Pottersburg Creek and Crumlin Drain Subwatershed Study (SWS Study), May 24, 1995, prepared by Paragon Engineering Limited.

- Ministry of the Environment, Conservation and Parks (MECP) Stormwater Management Planning and Design Manual (March 2003).

The following reports have been referred to with regard to the proposed development (relevant excerpts are included in **Appendix B**):

- SUE Report 1472 Dundas Street, London, July 14, 2023, prepared by 4Sight Utility Engineers

2.0 Storm Servicing

2.1 Existing Storm Sewer System

As indicated in the record drawings (**Appendix B**), the sizes and locations of the existing storm sewers surrounding the site, which all ultimately discharge to Pottersburg Creek are:

- A 200 mm diameter concrete storm sewer within the property along the North side of the site flowing East through neighbouring lands;
- A 300 mm diameter concrete storm sewer within the property along the South side of the site flowing East through neighbouring lands;
- A 600 mm diameter concrete storm sewer on Dundas Street flowing East;
- A 675 mm diameter concrete storm sewer on Dundas Street flowing East and South; and,
- A 750 mm diameter concrete storm sewer on the adjacent parking lot to the East flowing South.

As illustrated on **Figure 2.1**, the site is currently being serviced through the two existing concrete storm sewers, a 200 mm diameter concrete sewer and a 300 mm concrete sewer on the existing property. These two existing storm sewers flow east through the adjacent east property's parking lot before discharging to Pottersburg Creek. The existing 100 mm and 200 mm diameter concrete storm sewer on the northern area of the site will be removed up to the existing catchbasin, CB1016, located on the adjacent property to the north. The existing 300 mm diameter concrete storm sewer on the central area of the site will be removed up to the property limit towards the east side of the site. These existing sewers shall be removed to accommodate the proposed building.

2.2 Proposed Storm Sewer System

The storm sewer system within the proposed development on **Figure 2.2** is designed for the 5-year return storm per the City of London design standards. The storm sewer system was designed in accordance with the City of London, Ontario Building Code and MECP guidelines, including the following:

- Minimum Pipe Sizes: 300 mm diameter; or
- 100 mm diameter on private property in accordance with Part 7 of the Ontario Building Code
- Maximum Flow Velocities: 4.5 m/s for 300mm to 825mm diameter sewers
- Minimum Flow Velocity: 1.0 m/s
- Minimum Pipe Depth: 1.5 m to obvert

Criteria	Control Measure
Phosphorous Budget	Consideration on the design of stormwater management systems for their role in trapping, storing and processing phosphorous (City of London, 2022).

3.3 Allowable Release Rates

The allowable release rates for the proposed development are to control the proposed peak flows for the storm events up to and including the 100 year storm event to the existing 5 year peak flow. The rational method was used to determine the existing release rates from the site based on Intensity-Duration-Frequency (IDF) rainfall curves from the City of London Design Standards. Supporting calculations are provided in **Appendix C**. **Table 3.2** summarizes the existing peak flows from the site to the 250 mm diameter storm sewer, 300 mm storm sewer outlet and to the Dundas Street outlet based on existing drainage patters.

Table 3.2: Summary of Existing Peak Flows

Return Period Storm	250mm Storm Sewer (L/s)	300 mm Storm Sewer (L/s)	Dundas Street (L/s)	Overall to Pottersburg Creek
5 Year	112.4	153.0	2.3	**267.7 L/s**

3.4 Stormwater Best Management Practices Selection

In accordance with the Ministry of Environment Stormwater Management Planning and Design Manual (2003) and the City of London design standards (2022), a review of stormwater management best practices was completed using a treatment train approach, which evaluated at-source, conveyance system, and end-of-pipe alternatives. The potential best management practices were evaluated based on the stormwater management objectives listed in **Table 3.2**.

The following site characteristics were taken into consideration:

- Developable area of 1.00 ha consisting of mixed use residential and commercial development;
- Underground parking planned below proposed development; and
- The proposed site is located in the Pottersburg Creek and Crumlin Drain Subwatershed.

The following are examples of at-source, conveyance and end-of-pipe controls that were evaluated for use in the proposed development. While evaluating the following controls, cost, feasibility, groundwater and grading constraints were taken into consideration.

3.0 Stormwater Management

3.1 Existing Drainage

The north portion of the existing property (0.45 ha, Catchment 101, **Figure 3.1**) conveys runoff northeast to an existing 250 mm diameter storm sewer which outlets to the existing commercial plaza to the east which ultimately outlets to Pottersburg Creek. External drainage from the northeast (0.03 ha, Catchment EXT-1, **Figure 3.1)** is conveyed through the existing property into Catchment 101, ultimately captured by the existing 250 mm diameter storm sewer.

The majority of the existing property (0.54 ha, Catchment 102, **Figure 3.1**) conveys runoff towards an existing 300 mm diameter storm sewer which outlets to the existing commercial plaza to the east which ultimately outlets to Pottersburg Creek. A small portion of the external lands to the west (0.03 ha, Catchment EXT-2, **Figure 3.1**) conveys runoff to the east into Catchment 102, which is ultimately captured by the existing 300 mm diameter storm sewer.

Runoff from the remaining portion of the existing property in the southwest (0.01 ha, Catchment 103, **Figure 3.1**) conveys runoff south towards Dundas Street to the existing 600 mm diameter storm sewer that ultimately outlets to Pottersburg Creek.

3.2 Stormwater Runoff Control Criteria

The following stormwater runoff control criteria have been established based on the City of London design criteria (March, 2022) and the MECP Stormwater Management Planning and Design Manual (2003). The stormwater runoff criteria are summarized below in **Table 3.2**.

Table 3.1: Stormwater Runoff Control Criteria

Criteria	Control Measure
Quantity Control	Control the proposed peak flows up to and including the 100 year storm event to the existing 5 year storm event (City of London. 2022)
Quality Control	Provide MECP Enhanced (Level 1) Protection for 80% TSS Removal (SWS, 1995; City of London, 2022).
Erosion Control	Erosion control storage is only applied to regional wet ponds with long extended detention drawdown for larger developments and is not to be used on smaller site development projects unless specified by the City Engineer (City of London, 2022).
Water Balance	Infiltration, filtration or detention and treatment of the 25 mm storm runoff (SWS, 1995; City of London, 2022).

Criteria	Control Measure
Phosphorous Budget	Consideration on the design of stormwater management systems for their role in trapping, storing and processing phosphorous (City of London, 2022).

3.3 Allowable Release Rates

The allowable release rates for the proposed development are to control the proposed peak flows for the storm events up to and including the 100 year storm event to the existing 5 year peak flow. The rational method was used to determine the existing release rates from the site based on Intensity-Duration-Frequency (IDF) rainfall curves from the City of London Design Standards. Supporting calculations are provided in **Appendix C**. **Table 3.2** summarizes the existing peak flows from the site to the 250 mm diameter storm sewer, 300 mm storm sewer outlet and to the Dundas Street outlet based on existing drainage patters.

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3.4 Stormwater Best Management Practices Selection

In accordance with the Ministry of Environment Stormwater Management Planning and Design Manual (2003) and the City of London design standards (2022), a review of stormwater management best practices was completed using a treatment train approach, which evaluated at-source, conveyance system, and end-of-pipe alternatives. The potential best management practices were evaluated based on the stormwater management objectives listed in **Table 3.2**.

The following site characteristics were taken into consideration:

- Developable area of 1.00 ha consisting of mixed use residential and commercial development;
- Underground parking planned below proposed development; and
- The proposed site is located in the Pottersburg Creek and Crumlin Drain Subwatershed.

The following are examples of at-source, conveyance and end-of-pipe controls that were evaluated for use in the proposed development. While evaluating the following controls, cost, feasibility, groundwater and grading constraints were taken into consideration.

At-Source Controls

At-source controls are at-source measures that reduce runoff prior to stormwater entering the conveyance system, such as:

- Increased topsoil depth;
- At-source storage (i.e. rooftop or parking lot storage);
- Pervious pavements;
- Rainwater Harvesting;
- Infiltration trenches/soak-away pits.

Conveyance Controls

Conveyance controls provide treatment of stormwater during the transport of runoff from individual lots to the receiving watercourse or end-of-pipe facility. Examples of conveyance controls include:

- Grassed Swales;
- Pervious pipe system.

End-of-Pipe Controls

End-of-pipe stormwater management facilities receive stormwater flows from a conveyance system (i.e., storm sewers or ditches) and provide treatment of stormwater prior to discharging flows to the receiving watercourse. Typical end-of-pipe controls include:

- Wet ponds;
- Wetlands;
- Dry ponds;
- Manufactured Treatment Devices; and
- Underground storage.

3.4.1 At-Source Controls Evaluation

It is noted these controls are proposed on private properties. Incorporating controls that require minimal routine maintenance can be an effective method in the treatment train approach to SWM. The following controls have been evaluated and have been found to be feasible for use in the proposed development:

Increased Topsoil Depth

An increase in the proposed topsoil depth is recommended to promote at source infiltration (minimum 0.3 m depth). Increased topsoil depth will also contribute to at

source quality and quantity control and will contribute to groundwater recharge. A topsoil depth of 0.30 m is proposed.

Passive Landscaping

Planting of gardens and other vegetation designed to minimize local runoff or use rainwater as a watering source can be used to reduce rainwater runoff by increasing evaporation, transpiration, infiltration and contribute to groundwater recharge. Homeowner education should be encouraged to use passive landscaping practices as part of the homeowner turnover package of information. By promoting infiltration through passive landscaping, water quality and quantity control is provided for the volume of water infiltrated. Passive landscaping can provide significant stormwater management benefits as part of the overall treatment train approach for the proposed development.

3.4.2 Conveyance Controls Evaluation

Conveyance controls provide treatment of stormwater during the transport of runoff from individual lots to the receiving watercourse or end-of-pipe facility. The following conveyance controls have been evaluated for use in the proposed development:

Grassed Swales

Grassed swales conveying runoff promote infiltration, filtration, and evapotranspiration, contributing to water quality and quantity control, and contribute to groundwater recharge. Grassed swales are not proposed on the proposed development.

3.4.3 Proposed End-of-Pipe Controls

While at-source and conveyance system controls are valuable components of the overall SWM plan, on their own they are not sufficient to meet the quantity and quality control objectives for the proposed development. End-of-pipe stormwater management facilities receive stormwater flows from a conveyance system (i.e., storm sewers or ditches) and provide treatment of stormwater prior to discharging flows to the receiving outlet. Accordingly, the following end-of-pipe controls have been evaluated and have been found to be feasible for use in the proposed development:

Underground Storage

To meet quantity control targets, flow restrictors can be used to control stormwater release rates. To accommodate the reduced release rate, stormwater detention facilities are required to store stormwater runoff. Stormwater storage is proposed to be provided by on-site underground storage within the underground parking garage within the proposed development as shown on **Figure 3.2**.

Manufactured Treatment Device

A properly sized manufactured treatment device (MTD) can assist in providing MECP Enhanced (Level 1) treatment and can contribute to the treatment train approach for water quality control. The MTD unit is certified to provide 80% TSS removal for fine particle size distribution. Therefore, at-source and conveyance controls will work in conjunction with the MTD unit to provide overall Enhanced quality control. A MTD is proposed on-site to provide the quality control, refer to **Figure 3.2**.

Table 3.3 below summarizes the recommended stormwater management Best Management Practices (BMPs) for the proposed development.

Table 3.3: Summary of the Recommended Stormwater Best Management Practices (BMPs)

Stormwater Management Control	Recommended BMP
At-Source Controls	Increased Topsoil Depth
	Passive Landscaping
End Of Pipe Controls	Underground Stormwater Detention Tank
	Manufactured Treatment Device

3.5 Proposed Storm Drainage

The proposed major and minor system flow patterns and drainage areas are shown on **Figure 3.2**. As illustrated, the proposed development will convey runoff east via an existing 300 mm diameter storm sewer system towards the existing creek. Major and minor system flows from the proposed development will be captured via a proposed internal storm sewer system (Catchment 201, **Figure 3.2**) and detained on-site in an underground storage tank and conveyed east via the existing storm sewer system. Drainage from external boundaries will also be conveyed to and captured within Catchment 201 (EXT 1-2, **Figure 3.2**).

3.5.1 Quantity Control

An orifice tube located on the outlet pipe will control the proposed flows from the proposed development to the allowable releasee rates outlined within **Section 3.3** for the 100-year storm event. Proposed release rates and required storage volumes were calculated using the modified rational method and the IDF rainfall curves from the City of London Design Standards. Calculations are included in **Appendix C**. To accommodate the controlled release rate, an underground stormwater tank is proposed and will outlet to the existing 300 mm diameter storm sewer via a 250 mm diameter orifice tube

(**Figure 3.2**). The underground storage tank will provide approximately 200 m^3 of detention storage. A summary of the quantity control provided is listed in **Table 3.4** and **Table 3.5**.

Table 3.4: Summary of 100 Year Release Rates for the 300mm Storm Sewer

Storm Event	Allowable Release Rate to Storm Sewer (L/s)	Controlled Site Release Rate (L/s)	Uncontrolled Site Release Rate (L/s)	Total Proposed Site Release Rate (L/s)
100 Year	153.0	148.1	0.0	148.1

Table 3.5: Summary of 100 Year Storage Volumes

Storm Event	Total Required Storage (m^3)	Underground Storage System Provided (m^3)
100 Year	195.0	200.0

3.5.2 Quality Control

To contribute to the treatment train approach and to improve the level of quality control, a manufactured treatment device (MTD) (HydroDome, or approved equivalent) is proposed to treat runoff from the proposed development prior to discharging east to the existing storm sewer. The proposed MTD, (HydroDome HD 4), has been sized to provide MECP Enhanced (Level 1) Protection (80% TSS removal) for the 20 µm to 2000 µm particle size distribution. Refer to **Appendix D** for the preliminary sizing.

3.5.3 Erosion Control

As outlined within the City of London design standards (2022), erosion control storage is only typically applied to regional wet ponds for larger developments and not to be used on smaller site development projects unless specified by the City Engineer. As this proposed development is 1.00 ha in size, erosion control is not required.

3.5.4 Water Balance

As outlined within the City of London design standards (2022), infiltration, filtration or detention and treatment of the 25 mm storm runoff is required on-site. The preference to satisfy this criterion is based on a hierarchy, with infiltration as the preferred method, filtration as an alternative method, and detention and treatment of the 25 mm storm event as an alternative method should infiltration or filtration not be feasible. As the

proposed development has underground parking, the infiltration or filtration of the runoff from a 25 mm storm event is not feasible. Therefore, the treatment of the runoff from the 25 mm storm event will be provided via a manufactured treatment device. Re-use of the runoff will be explored further at the site plan application stage.

3.5.5 Phosphorous

As outlined within the City of London design standards (2022), consideration should be taken on the design of stormwater management systems for their role in trapping, storing and processing phosphorous. As the existing development consists of a commercial development, the proposed phosphorous loading will be reduced based on the proposed loading for a high density development. For example, existing and proposed phosphorus loading rates were calculated using the Lake Simcoe Region Conservation Authority (LSRCA) Phosphorus Loading Tool. As shown in **Table 3.6**, the proposed development will reduce existing phosphorus loading by 27 %. Further assessment of potential phosphorus removal focused BMPs will be explored at the site plan application stage.

Phosphorus Loading (kg/yr)	
Existing	**Proposed without BMPs**
1.82	1.32

4.0 Sanitary Servicing

4.1 Existing Sanitary Servicing

As indicated in the site survey (**Appendix B**), the sizes and locations of the existing sanitary sewers surrounding the site are:

- A 525 mm diameter concrete sanitary sewer on Dundas Street flowing west;
- A 200 mm diameter concrete sanitary connection to the existing property; and,
- A 200 mm diameter ACP sanitary sewer on Dundas Street flowing East.

The site is currently being serviced by an existing 200 mm sanitary sewer on site. This existing 200 mm sanitary sewer connects to the existing 525 mm diameter sewer on Dundas Street, before flowing West. This existing 200 mm diameter sanitary sewer on site is shared between the current property and the adjacent property directly to the east. The existing 200 mm sanitary sewer currently on site will be removed and replaced up to the existing sanitary maintenance hole, SAN.MH2001. The existing sanitary maintenance hole, SAN.MH2001, and subsequent upstream sanitary sewer pipes, shall be maintained and reused by the proposed development.

4.2 Proposed Sanitary Servicing

The sanitary servicing system from the proposed development is proposed to realign the existing 200 mm diameter sanitary sewer on site before connecting to the existing sanitary control maintenance hole at the property line at the southwest corner of the proposed development, as shown on **Figure 4.1**. A proposed 200 mm diameter PVC sanitary sewer shall be constructed between the existing building on the property adjacent to the proposed development to the east, and existing sanitary maintenance hole, SAN.MH2001. This proposed 200 mm sanitary sewer will be used to convey combined flows between the proposed development and the existing development on the property adjacent to the east. Existing sanitary maintenance hole, SAN.MH2001, and subsequent downstream sanitary sewer pipes shall be reused by the proposed development and existing development on the adjacent property to the east. Per the subsurface utility engineering (SUE) investigation provided by 4Sight (**Appendix B**), the proposed sanitary sewer has 2.13 m of cover at the existing sanitary control maintenance hole, which is sufficient to service the proposed development.

A downstream sanitary capacity analysis has been completed for the residual capacity of the downstream sanitary sewers for the proposed development, up to the existing 600 mm sanitary sewer west of the property along Dundas Street, just before the existing 750 mm sanitary trunk sewer flowing south on Highbury Avenue North, as shown on

Figure 4.2 and **Figure 4.3**. The peak flows for the proposed development are 5.80 L/s, per the sanitary flow calculation in **Appendix G**. Based on the result of this analysis, the downstream sanitary sewer has sufficient capacity to accommodate the proposed development.

The sanitary servicing system will be designed in accordance with the City of London and MECP criteria, including but not limited to:

- Residential Sanitary Generation Rate: 230 l/c/d
- Commercial Sanitary Generation Rate: 230 l/c/d
- Population Density: 1.6 people/unit
- Peaking Factor: Harmon
- Infiltration Rate: 0.10 L/s/ha
- Minimum Pipe Sizes: 200 mm diameter; or
- 100mm diameter on private property in accordance with Part 7 of the Ontario Building Code
- Minimum Pipe Cover: 2.4 m
- Minimum Actual Velocity: 0.60 m/s
- Maximum Velocity: 4.5 m/s

5.0 Water Servicing

5.1 Existing Water Servicing

As indicated in the survey (**Appendix B**), the following existing watermains surround the site:

- A 250 mm diameter watermain on the north side of Dundas Street;
- A 150 mm diameter watermain on the adjacent parking lot east of the site;
- A 100 mm diameter service connection connecting to the above mentioned 150 mm diameter watermain;
- A service connection in the southwest corner of the site; and,
- A 450 mm diameter watermain on the South side of Dundas Street.

The site is currently being serviced by two existing watermain service connections. One existing service connection is located at the southwest corner of the site connecting to the existing 250 mm diameter watermain on the north side of Dundas Street. The second existing watermain service connection is a 100 mm diameter service connection and is serviced via an existing 150 mm diameter (private) watermain connection from the adjacent property to the east. The existing watermain service connection located at the southwest corner of the site shall be removed and capped at the property limit. The existing 100 mm diameter watermain service connection being serviced from the adjacent property to the east will also be removed and capped at the property limit.

A hydrant flow test will be completed during the spring season in 2024 as the hydrant flow testing season for 2023 has currently closed due to the winter season.

5.2 Proposed Water Servicing

The domestic and fire water supply for the proposed development will be provided via new separate domestic and fire watermain service connections that are proposed to connect to the existing 250 mm diameter watermain on the north side of Dundas Street, as shown on **Figure 5.1**. Sizing of these proposed service connections will be provided in the spring season once the hydrant flow tests are completed and the results are available. The water meter and backflow preventer for the proposed development will be located within the mechanical room of the proposed development's building within the underground levels.

A water distribution analysis will be completed in subsequent submissions when hydrant flow test results are available. The watermain system has been designed in accordance with the City of London and MECP criteria including:

- Residential water usage rate: 255 l/c/d

- Population Density: 1.6 people/unit
- Minimum Pipe Size: 150 mm diameter
- Minimum Pipe Depth: 1.7 m
- Maximum Hydrant Spacing: 170 m
- Maximum Day Peaking Factor: 3.5
- Maximum Hour Peaking Factor: 7.8

6.0 Grading

6.1 Existing Grading Conditions

The existing topography has slopes in the range of 0.5% to 3.6% within the site area. The ground surface elevations through the study area range from approximately 259.30 m in the southeast corner to approximately 261.38 m in the northwest corner.

6.2 Proposed Grading Concept

In general, the proposed development will be graded in a manner which satisfies the following goals:

Satisfy the City of London lot and road grading criteria, create required depth for sanitary sewer, as well as provision of an efficient earthworks program, including:

- Minimum Road Grade: 0.5%
- Maximum Road Grade: 8.0%
- Minimum Lot Grade: 2%
- Minimum Driveway Grade: 2%
- Maximum Driveway Grade: 10%
- Minimize the need for retaining walls
- Minimize the volume of earth to be moved and minimize cut/fill differentials
- Minimize the need for rear lot catchbasins
- Achieve the stormwater management objectives required for the proposed development.

A preliminary grading plan is provided on **Figure 6.1**. At the site plan application stage, the preliminary grading will be subject to a more in-depth analysis in an attempt to balance the cut and fill volumes and minimize slopes and retaining walls.

7.0 Erosion and Sediment Control During Construction

During the detailed design stage in support of Site Plan approval, erosion and sediment control measures will be designed with a focus on erosion control practices (such as stabilization, track walking, staged earthworks, etc.) as well as sediment controls (such as fencing, mud mats, catchbasin sediment control devices, and check dams). These measures will be designed and constructed as per the Stormwater Management Design Specification & Requirements Manual document (City of London, 2022). A detailed erosion and sediment control plan will be prepared for review and approval by the City of London and UTRCA prior to any proposed grading being undertaken. This plan will address phasing, inspection and monitoring aspects of erosion and sediment control. All reasonable measures will be taken to ensure sediment loading to the adjacent watercourses and properties are minimized both during and following construction.

8.0 Summary

This Functional Servicing and Stormwater Management Report has outlined the means by which:

- The site can be serviced by full municipal services (storm, sanitary and water);
- The Site Plan layout supports the stormwater management requirements.

This Stormwater Management Report has outlined the means by which proposed development at 1472 Dundas Street, London will meet the objectives the City of London Guidelines through the following measures:

Quantity Control

- The proposed peak flows from all storm events up to and including the 100 year design storm will be controlled to match the existing 5 year peak flow.
- Stormwater quantity control will be achieved through an orifice control with stormwater storage provided by underground stormwater tank.

Quality Control

- The water quality objective is satisfied through the use of a manufactured treatment device.

Water Balance

- Infiltration, filtration or detention and filtration of the runoff generated by the 25 mm storm event will be detained within the underground stormwater management tank and treated via a manufactured treatment device. The use of re-use will be explored at the site plan application stage.

Erosion Control

- Erosion control storage is not required due to the size of the proposed development.

Respectfully Submitted:

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