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953 Mapleview Drive E – Block 192 Site Plan

Mapleview South (Innisfil) Ltd.

Functional Servicing Report

June 2024

The Jones Consulting Group Ltd.
229 Mapleview Drive East, Barrie ON L4N 0W5

REI-17055 (70)

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Rev. No.	Date	Description
0	June 2024	First Detailed Design Submission

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PROVINCE OF ONTARIO

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Disclaimer

This Report was prepared by **The Jones Consulting Group Ltd.** for **Mapleview South (Innisfil) LTD.** The material in the Report reflects **The Jones Consulting Group Ltd.'s** best judgment in light of the information available at the time of the Report preparation. Any use which a third party makes of this Report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. **The Jones Consulting Group Ltd**. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this Report. This report has been prepared, in part based on the Subwatershed Impact Study (SIS) prepared by R.J. Burnside & Associates Ltd., dated September 2016.

Functional Servicing Report

Mapleview South (Innisfil) Ltd. – Block 192 Site Plan

953 Mapleview Drive East, City of Barrie

1. Introduction

1.1. Appointment

The Jones Consulting Group Ltd. (TJCG) was retained by Mapleview South (Innisfil) LTD. (Client) to provide engineering services for a proposed residential subdivision development located in the Hewitt's Secondary Plan Area (HSPA) southeast of Mapleview Drive and Prince William Way in the City of Barrie (City). The subdivision is to be known as the Mapleview South Subdivision. This Report pertains to the Block 192 Site Plan located in the northeast corner of the overall subdivision, east of Dallaire Street.

This *Functional Servicing Report* (FSR) has been prepared in support of the *953 Mapleview Drive – Block-192 Site Plan* prepared by S&C Architects Inc., dated June 14, 2024, and demonstrates how the lands will be serviced by the surrounding municipal infrastructure.

In particular, this report examines the property's servicing in relation to:

- Stormwater Servicing
- Water Servicing
- Sanitary Servicing
- Roads and Grading
- Utility Servicing

1.2. Property Description

Block 192 is irregular in shape and is comprised of approximately 0.74 hectares (ha) of land. The subject property is legally described as Part of Lot 19, Concession 11, Geographic Township of Innisfil, in the City of Barrie, County of Simcoe. A copy of the *953 Mapleview Drive – Block-192 Site Plan* prepared by S&C Architects Inc. and the proposed *Draft Plan of Subdivision* prepared by The Jones Consulting Group for the overall subdivision lands have been attached in **Appendix C**.

The site is situated southeast of the intersection of Mapleview Drive East and Prince William Way. It is bound to the north, south and west by a Future Residential Subdivision (Mapleview South Subdivision), and to the east by a stormwater management facility (SWMF12) on future residential lands (Sandy Creek Estates). The location of the subject property is shown in **Figure 1**.

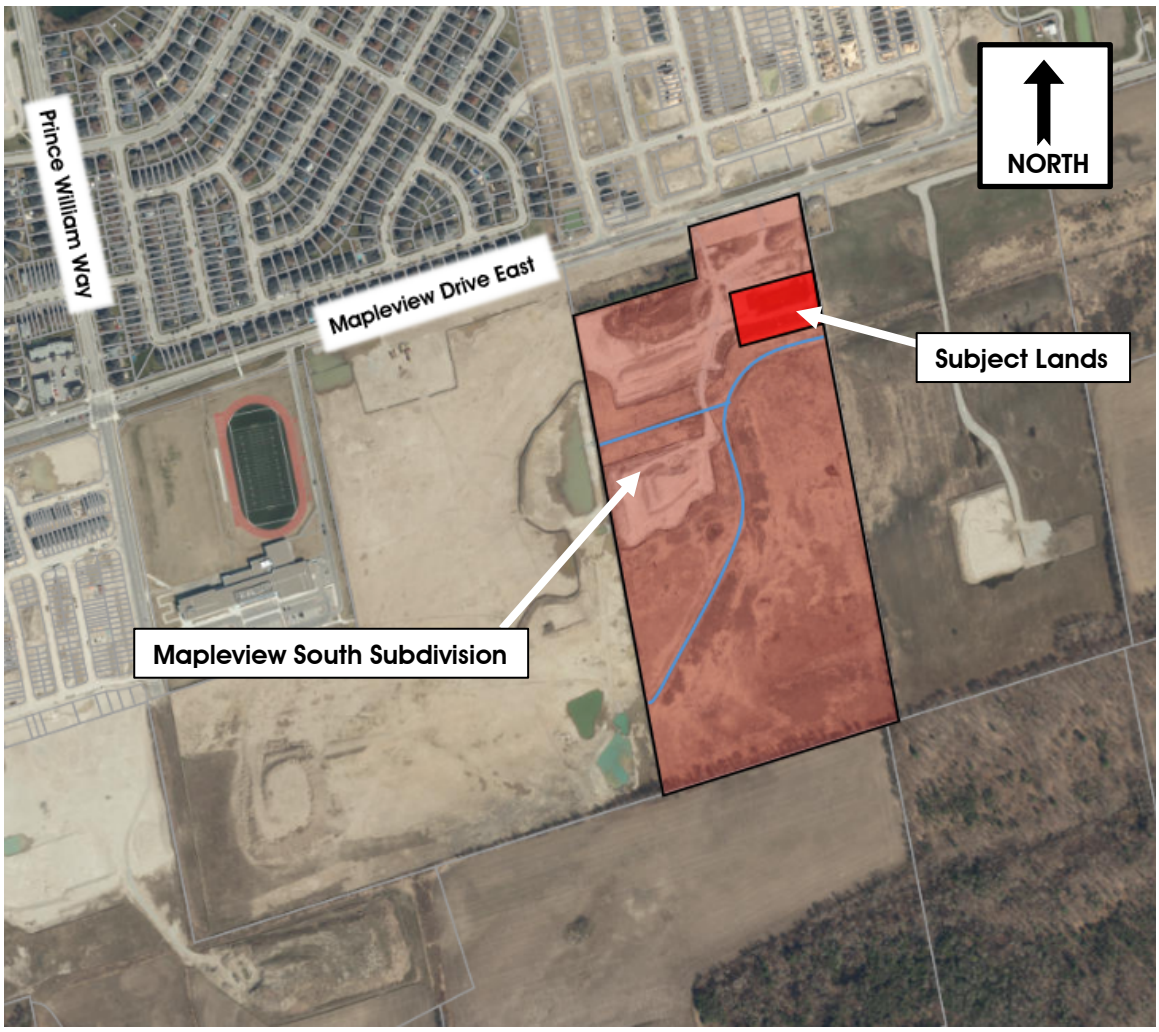


Figure 1 - Site Location

The existing site topography ranges in elevation from a maximum elevation of 259.00 meters at the northwest corner of the site adjacent to a minimum elevation of 252.50 meters near the southern boundary of the block. Sandy Cove Creek generally drains from southwest to northeast, with the subject lands draining from the north and south towards the creek. Existing slopes range from 1% to 7%.

The developable limits of the Mapleview South Subdivision lands were established in connection with the *Hewitt's Secondary Plan* and the associated *Secondary Infrastructure Master Plans*, *The Hewitt's Secondary Plan Area Subwatershed Impact Study (SIS)* prepared by R.J. Burnside and Associates Ltd. (September 2016), as well as the Natural Heritage System Core and Buffer Limits and Regional Floodplain Limits established through the SIS process and subsequent consultation with the Lake Simcoe Region Conservation Authority. The SIS has been utilized as a framework for developing a servicing strategy that is outlined in further detail in this report. As such, many of the assumptions noted in this FSR are based on the findings and recommendations of the *SIS*.

1.3. Existing and Proposed Land Use

The *Barrie-Innisfil Boundary Adjustment Act*, 2009, extended the southern boundary of Barrie to include 2,335 hectares (approximately) of land previously in the Town of Innisfil, which came into effect January 1, 2010. In response to the Boundary Adjustment, the City of Barrie completed in 2013 the Master Planning Process for the *Hewitt's Secondary Plan (East Annexation Lands)* and the associated Infrastructure Master Plans. These Master and Secondary Planning Documents along with the City's Growth Management Strategy have formed a framework for intensification and development activities taking place in the annexation lands. This framework is intended to ensure the development's successful implementation while meeting the City of Barrie's vision for growth.

The lands were previously used for agricultural practices comprised of mainly pasture and seasonal crops. The branch of Sandy Cove Creek/Redfern Channel traverses the Mapleview South Subdivision from southwest to northeast. Drainage of the subject lands in its previous condition was directed southerly to these watercourses.

The site is designated as residential per the City of Barrie Official Plan 2051, Council adopted Version February 15, 2022. The Block 192 Site Plan proposes the development of a 120-unit, 5 storey apartment building with, above and below ground surface parking, an outdoor amenity area, and internal roadway/fire route.

1.4. Overview of Municipal Infrastructure

1.4.1. Stormwater Servicing

Currently, there are no existing storm sewers or existing stormwater management facilities on the subject lands or within the areas immediately adjacent to the subject lands, and as such, a new storm sewer system and stormwater management facilities are required to be provided to support development of the subject lands. The proposed development will convey runoff to the adjacent Mapleview South Subdivision lands and Sandy Creek Estates lands, which will contain a receiving storm sewer system, and end-of-pipe SWMF, respectively. The receiving stormwater infrastructure within these lands will be constructed prior to construction of the Block 192 Site Plan.

The proposed storm sewer system and stormwater management facilities will be designed and constructed in accordance with the latest standards issued by the City of Barrie, Lake Simcoe Region Conservation Authority, Ministry of Environment, Conservation and Parks, and recommendations provided in the *Hewitt's Secondary Plan Area SIS*. Traditional end-of-pipe SWM facilities are proposed off-site while Low Impact Development (LID) controls are proposed throughout the site where feasible to meet Runoff Volume Control Targets (RVCT), Water Balance and provide additional quality control through infiltration of stormwater runoff.

A Detailed Stormwater Management Report has been completed by TJCG and submitted under separate cover. The Detailed Stormwater Management Report confirms that the new storm sewer system, LID's and end-of-pipe stormwater management facility (by others) will be able to fully service the Mapleview South Block 192 Site Plan. The proposed stormwater servicing plan is described in **Section 2** of this report.

1.4.2. Water Servicing

According to the City of Barrie's tender drawings of *Mapleview Drive East Road Widening* prepared by RJ Burnside (Drawing PP-5 Sta. 8+640 to Sta. 8+800 included in **Appendix C**), there is an existing 300mm diameter watermain located within the north boulevard of Mapleview Drive East.

In addition to the existing 300mm diameter watermain, the City of Barrie is proposing to construct a 600mm diameter Transmission Watermain within Mapleview Drive East as part of their Infrastructure Improvements outlined in the City of Barrie's *Water Storage and Distribution Master Plan* (October 2013). The proposed Transmission Watermain is intended to supply adequate water supply and fire flows to development lands in the Mapleview South Subdivision and adjacent Areas.

Block 192 will connect to the proposed 300mm watermain within Dallaire Street of the Mapleview South Subdivision. The proposed water servicing system is described in **Section 3** of this report.

The City's *Water Map – July 2017* shows that the lands are located in *Zone 2 South*. A copy of the City's infrastructure map has been attached in **Appendix C**.

1.4.3. Sanitary Servicing

There is an existing 450mm diameter trunk sanitary sewer located in the south boulevard of Mapleview Drive East. The existing trunk sanitary sewer was constructed as part of the Mapleview Drive East Road Widening construction works. Refer to as-built drawing prepared by RJ Burnside & Associates Ltd. (Sheet No. PP-5 Plan and Profile STA. 8+640 to STA. 8+800) attached in **Appendix C**. The trunk sanitary sewer drains westerly by gravity which crosses the Dallaire Street and Mapleview Drive East intersection at existing sanitary maintenance hole SAH33887. The existing sanitary sewer will allow Block 192 to be adequately serviced for wastewater.

A 200mm diameter sanitary sewer is currently proposed within Dallaire street which will convey flows from the Mapleview South Subdivision lands in a northerly direction to the Mapleview Drive East trunk sanitary sewer. Block 192 is proposed to connect to the 200mm diameter sewer at Dallaire street via a 200mm diameter sewer at the western limit of the block.

The proposed internal sanitary collection system is described in **Section 4** of this report.

The reduced figures by R.J. Burnside & Associates Ltd., *'Hewitt's Secondary Plan Area SIS report'* for the *proposed sanitary sewer plan* have been provided for reference in **Appendix C**.

1.4.4. Road Network

The subject property is bound by Mapleview Drive East to the north. The proposed internal road network of the Mapleview South Subdivision makes provisions for the ultimate connection to future Dallaire Street. Block 192 is proposed to have a single entrance/egress location to future Dallaire Street at the site's western limit.

1.5. Supporting Documents

The following documents have been referenced in the preparation of this report:

- Mapleview South Subdivision Detailed Stormwater Management Report, The Jones Consulting Group Ltd., June 2023;
- Mapleview South Subdivision (953 Mapleview Dr. E.), Functional Servicing Report, The Jones Consulting Group Ltd., June 2023;
- 953 Mapleview Drive E – Block 192 Site Plan, Detailed Stormwater Management Report, The Jones Consulting Group Ltd., June 2024;
- Hewitt's Secondary Plan Area Subwatershed Impact Study, Lover's, Hewitt's and Sandy Cove Creeks, R.J. Burnside & Associates Ltd., September 2016;
- 953 Mapleview Drive – Block-192 Site Plan, S&C Architects Inc., June 14, 2024;
- Mapleview South (Innisfil) Ltd. 953 Mapleview Drive, Barrie, Ontario, Proposed Draft Plan of Subdivision, Jones Consulting Group, Dec. 22, 2022;
- City of Barrie, Sanitary Infrastructure Standard, S600, April 2023;
- City of Barrie, Drinking Water Infrastructure Design Standard, W500A, April 2024;
- City of Barrie, Water Storage and Distribution Master Plan, October 2013;
- City of Barrie, Multi-Modal Active Transportation Master Plan, January 2014;
- City of Barrie, Stormwater Infrastructure Design Standard, D700, June 2023;
- City of Barrie, Lot Grading and Drainage Infrastructure Design Standard, D703, April 2023;
- City of Barrie, Hewitt's Secondary Plan Transportation Improvements Municipal Class Environmental Assessment, Phases 3 & 4, adopted by council June 19, 2017;
- City of Barrie, Secondary Plan, Background Studies & Infrastructure Master Plan, Intensification and Annexed Lands, AMEC, October 2013;
- Ministry of the Environment, Design Guidelines for Drinking-Water Systems, 2008;
- Geotechnical Investigation Report – Mapleview South Development Block B (192), Barrie, Ontario, Cambium Inc., June 2024;
- Hydrogeological Brief – Block 192 953 Mapleview Drive, R.J. Burnside & Associates Limited, June 2024;

- Geotechnical Investigation Report, Mapleview South Development, Cambium Inc., December 2018;
- Hydrogeological Assessment, Mapleview South (Innisfil) Ltd., R.J. Burnside & Associates Limited; May 2023;
- 953 Mapleview Drive East (Block 192) Traffic Brief / Parking Study / Construction Traffic Management Plan, JD Engineering Inc., June 2024;
- Traffic Brief for Mapleview South (Innisfil) Ltd., JD Northcote Engineering Inc., May 2021;
- Functional Servicing & Stormwater Management Report, 969, 979 & 989 Mapleview Drive East Phase 1, Tatham Engineering Ltd, February 2022;
- Water Supply Analysis Report 953 Mapleview Drive East Mapleview South Proposed Residential Subdivision, Schaeffers Consulting Engineers Project 2023-5303, June 2023;

2. Stormwater Servicing

A comprehensive stormwater management plan has been established as part of the detailed design of Block 192 to address stormwater quality & quantity control, erosion & sediment control, and water balance criteria outlined in the City of Barrie Stormwater Infrastructure Design Standard, D700 (June 2023), the LSRCA *Technical Guidelines for Stormwater Management Submissions* (April 2022) and the MOE *Stormwater Management Planning and Design Manual (*2003). Key features of the proposed stormwater management plan include subsurface storm sewers for minor flow (5-year event) conveyance, an overland flow path for major flow (Regional event) conveyance, a Low Impact Development (LID) infiltration gallery, Oil Grit Separator (OGS) Unit, and offsite end-of-pipe (wet pond) facility located on the adjacent Sandy Creek Estates Subdivision lands. A corresponding storm sewer design sheet illustrating safe conveyance of the 5-year storm event while meeting minimum and maximum pipe velocity requirements has been provided in **Appendix B** of this Report.

Runoff quantity control measures are addressed via the off site end-of-pipe SWMF located on the adjacent Sandy Creek Estates Subdivision lands. Design coordination has occurred between The Jones Consulting Group (Mapleview South lands) and Tatham Engineering (Sandy Creek Estates lands – SWMF12), to ensure the future SWMF has been designed to accept and control stormwater runoff from the subject lands, while meeting the design criteria targets of the City, LSRCA and the MOE. There is no anticipated increase in peak flow or runoff volume to the SWMF beyond its intended design.

Runoff quality control targets are achieved through the implementation of a prescribed treatment train. To mitigate loading and minimize reliance on the off-site end-of-pipe facility (by others), the stormwater management plan integrates an Oil Grit Separator (OGS) Unit and a Low Impact Development (LID) infiltration gallery as preliminary treatment components. As previously mentioned, there is no anticipated increase in peak flow or runoff volume to the respective off-site SWMF beyond its intended design and as such, no impact is expected to the facility's ability to achieve the water quality criteria which it is designed for.

The comprehensive hydrologic analysis and stormwater management plan have been further delineated in the *953 Mapleview Drive E – Block 192 Site Plan, Detailed Stormwater Management Report*, prepared by The Jones Consulting Group Ltd. (June 2024). This document has been provided under separate cover as part of the development's detailed design submission.

3. Water Servicing

3.1. Supply, Distribution Zone, External Watermain

The subject property is located within Pressure *Zone 2 South* of the City of Barrie Water Distribution Network. Pressure *Zone 2 South* generally operates between elevations of 237m and 273m with variations in static pressure from 344 kPa (50psi) to 690 kPa (100psi). Elevations for the subject property vary from 252m to 259m; well within the *Zone 2 South* operating pressure range.

An existing 300mm diameter watermain is present within the Mapleview Drive East Right-of-Way located north of the development. A 300mm diameter watermain is proposed to be constructed within future Dallaire Street of the Mapleview South Subdivision lands prior to construction of the proposed Block 192 Site Plan. Future Dallaire Street will traverse the western limit of the subject lands and connect to the existing water infrastructure at Mapleview Drive.

The development is proposed to be serviced by connections to Dallaire Street at the site's entrance/egress location. A 100mm diameter domestic service and 150mm diameter fire service will provide the required water supply to the development with a single hydrant located within the site's interior.

3.2. Domestic Water Supply Design Flows

The development's projected design population and water supply flow rates are estimated based on the City of Barrie Drinking Water Infrastructure Design Standard, W500A (April 2024), and MECP *Design Guidelines for Drinking Water Systems* (2008). The following design criteria have been used for calculating the person per unit (PPU) for residential flows.

Unit Type	Design Population
Medium Density Residential	2.57 persons/unit

Based on the above design criteria and the proposed *Site Plan* statistics, the total population for Block 192 of the Mapleview South Subdivision has been calculated below.

Unit Type	Design Population
120 Medium Density Residential units x 2.57 PPU	309 people
Total projected population	**309 people**

Operating pressures within the water supply and distribution system are required to remain between 50 psi and 90 psi. A summary of the proposed demand scenarios for the development is provided below.

Design Criteria:

- *Average Day Demand (ADD) = 225 L/d/capita (City of Barrie Sanitary Design Guideline)*
- *Peak Hour Demand Factor (PHD) = 5.35 (MECP Drinking Water Guideline, 2008)*
- *Max. Day Demand Factor (MDD) = 3.56 (MECP Drinking Water Guideline, 2008)*
- *Min. Hour Demand Factor (MHD) = 0.21 (MECP Drinking Water Guideline, 2008)*
- *Fire Flow = 267 L/s (Fire Underwriters Survey, 1999)*

Peak Hour Demand:

Q = Pop. x ADD x PHD

Q = (309 persons x 225 L/d/capita x 5.35)/86,400

Q = 4.31 L/s

Minimum Hour Demand:

Q = Pop. x ADD x MHD

Q = (309 persons x 225 L/d/capita x 0.21)/86,400

Q = 0.17 L/s

Max. Day Demand:

Q = Pop. x ADD x MDD + FF

Q = (309 persons x 225 L/d/capita x 3.56)/86,400 + 267L/s

Q = 269.86 L/s

3.3. Fire Water Supply Design Flows

The fire flows for the site are determined by calculations from Part 2 of the "Water Supply for Public Fire Protection" (*Fire Underwriter Survey, 2020*). An estimate of the required fire flow is given by the following formula:

$$RFF = 220C\sqrt{A}$$

Where: RFF=Required fire flow (L/min.)

C=Coefficient related to the type of construction

A=Building total floor area (m^2)

The fire flows calculated from the above formula are adjusted based on three building factors including occupancy contents, sprinklers and exposure. The original fire flow derived from the above formula is then increased or decreased based on these factors.

Based on the Fire Underwriters Survey calculations, the suggested required fire flow for the proposed developed is determined to be **267 L/s**, which is in accordance with the minimum criteria for residential fire flows (100 L/s) per the City of Barrie Drinking Water Infrastructure Design Standard, W500A (April 2024). Detailed Fire Underwriter Survey calculations are provided in **Appendix B** of this Report.

3.4. Water System Analysis

The SIS identifies that through the construction of the proposed external watermain capital projects by City of Barrie, there will be sufficient supply at the required flow and pressures to adequately service the proposed development.

A detailed Water Supply Analysis (WSA) report was completed by Schaeffers Consulting Engineers for the overall Mapleview South Subdivision, which will be updated to account for the water demand of Block 192 to confirm the required watermain pipe sizing and pressures for the system. Currently there are no anticipated conflicts associated with the required demand outlined in **Section 3.2.**

4. Sanitary Servicing

4.1. External Sanitary Servicing Framework

As previously mentioned in **Section 1.4.3.** of this report there is an existing 450mm diameter trunk sanitary sewer located within the south boulevard of Mapleview Drive, north of the proposed development. In accordance with the *Mapleview Drive East Road Widening* completed by R.J. Burnside & Associates Limited, sanitary allocation for the subject lands will be available through the Hewitt's Creek Trunk Sewer extension.

The subject lands will convey flows to the existing Hewitt's Creek trunk sanitary sewer extension via the proposed 200mm diameter sanitary sewer within Dallaire Street with a connection at the proposed sanitary maintenance hole SAN 17A.

There are no external sanitary catchment areas draining to the subject lands. All internal sanitary drainage will be captured and conveyed by a local sanitary sewer to the proposed outlet described above.

Refer to Drawings SAN-1 & SAN-2 of the *Mapleview South (Innisfil) Ltd. 953 Mapleview Drive East drawings* (June 2023) in **Appendix C** for more details.

4.2. Allocated and Projected Sanitary Flows

The City of Barrie Sanitary Infrastructure Standard, S600 (April 2023) provides theoretical design criteria for future developments and their projected sanitary loading demands. Specifically, the guidelines provide design criteria for development based on the proposed land use.

Peak Domestic Sewage Flow Equation:

$$Q_{tot} = Q_p + Q_i = \left[\frac{PQM}{86.4}\right] + [I \times A]$$

Where: Q_{tot} = Total peak sewage flow (L/s)

Q_p = Peak domestic sewage flow (L/s)

Q_i = Extraneous sewage flow (L/s)

P = Design population in thousands (309 people = 0.309)

Q = Average daily flow (225 L/person/day)

A = Area of Development (Ha), 0.74 Ha

I = Units of extraneous flow (0.10 L/s/ha - Refer to the City of Barrie Sanitary Infrastructure Standard, S600 (April 2023))

M = Harmon Peaking Factor or Babbitt Peaking Factor (Use Larger)

M = **Harmon Peaking Factor**; $M = 1 + \frac{14}{(P)^{0.5}+4} \quad (M \geq 2.0)$

Therefore: $M = 1 + \frac{14}{(0.309)^{0.5}+4}$

M = 4.07

OR

M = **Babbitt Peaking Factor**; $M = \frac{5}{(P)^{0.2}} \; (M \geq 2.0)$

Therefore: $M = \frac{5}{(0.309)^{0.2}}$

M = 6.32 (Use)

$$Q_{tot} = \frac{0.309 \times 225 \times 6.32}{86.4} + 0.10 \times 0.74$$

Q_{tot} = 5.16 L/s ← total peak sewage flow

4.3. Proposed Sanitary Servicing Scenario

The proposed works involve the construction of an internal gravity sanitary collector sewer system that will collect wastewater flows and convey them to the Dallaire Street sewer as described in **Section 4.1.**

The internal sanitary sewers will be constructed in accordance with the City's current engineering standards and the MECP guidelines. The sewers will consist of PVC DR35 pipe with a diameter of 200mm. The design has ensured that the minimum and maximum velocities are maintained under full flow conditions as well as the flushing velocities outlined in the City of Barrie standards.

Refer to **Drawing SAN-1** in **Appendix A** which illustrates the proposed drainage scenario for the subject lands and delineates the sanitary sewer subcatchment areas.

To illustrate the proposed drainage scenario in relation to allowable pipe capacities within the overall Mapleview South Subdivision, refer to the Mapleview South Subdivision Design Sheet in **Appendix B**, which has been revised to illustrate the proposed design flows generated by Block 192. Drawings SAN-1 & SAN-2 of the *Mapleview South (Innisfil) Ltd. 953 Mapleview Drive East*

drawings (June 2023) illustrate the overall Mapleview South Subdivision sanitary catchment areas and are provided in **Appendix C**.

5. Transportation

5.1. External Road Network

The City of Barrie *Hewitt's Secondary Plan Schedule '9D-2' Street Widening Plan* identifies two collector roads severing the Mapleview South Subdivision lands. From west to east, there is a minor collector road identified on the Mapleview South Draft Plan as McAush Street, and from southwest to east (south of the realigned channel), a major collector road noted as Terry Fox Drive. The Draft Plan layout and road designations for the Mapleview South Subdivision were developed in accordance with Hewitt's Secondary Plan.

A copy of the *HSP Schedule '9D-2'* has been attached in **Appendix C**. The Mapleview South Lands are also bound to the west, south and east by future residential development lands owned by others that will ultimately connect to the two collector roads mentioned above.

Mapleview Drive East, which is currently a two-lane arterial road, in an east/west orientation is located along the northern boundary of Block 193 (which is immediately north of the subject site, Block 192).

5.2. Proposed Site Entrance & Internal Roadway

The subject lands will consist of a single internal roadway and entrance/egress point providing a connection to the Mapleview South Subdivision Lands via Dallaire Street. Dallaire Street is proposed to have an 18.0m Right-of-Way (ROW) cross-section designed in accordance with the City of Barrie's current ROW standards. The proposed site entrance and internal roadway have been designed to serve as a designated fire route for the development, ensuring secure passage for emergency vehicles to reach the structure.

Refer to the *953 Mapleview Drive – Block 192 Site Plan,* prepared by S&C Architects Inc. dated June 14, 2024, attached in **Appendix C** for the proposed entrance alignment, ROW widths and internal roadway geometry. A Traffic Impact Study (Brief) in support of the Mapleview South Subdivision has been prepared by JD Northcote Engineering Inc., dated May 10th, 2021.

5.3. Traffic Study

A *Traffic Brief* for the proposed development was completed by JD Northcote Engineering Inc. (June 2024) to estimate the amount of traffic generated by the proposed development, identify operational deficiencies and significant impacts to nearby roadways, review traffic flow patterns and intersection geometry, etc. Ultimately the analysis concluded that proposed development will not cause any operational issues and will not add significant delay or congestion to the local roadway network. The *Traffic Brief* completed by JD Northcote Engineering Inc., June 14th, 2024, is provided under separate cover.

6. Site Grading

The proposed grading will conform to the City of Barrie Lot Grading and Drainage Infrastructure Design Standard, D703 (April 2023). Site grading will generally be directed towards Dallaire Street which drains to an off-site end-of-pipe SWM facility identified as SWMF12 within the Sandy Creek Estates lands. The lot grading plan **Drawing GP-1** has been provided in **Appendix A** for reference.

7. Utilities

It is expected that secondary utilities, including Bell, hydro, gas, and cable TV will be available via Dallaire Street within the Mapleview South Subdivision prior to the Block 192 Site Plan construction.

The utility providers for the *Hewitt's Secondary Plan Area* are Enbridge Gas, Innpower, Bell Canada and Rogers Cable.

Utility Servicing coordination for the entire Hewitt's Secondary Plan Area has been undertaken by the Hewitt's Land Owner's Group (HLOG). The developments' electrical and utility design is in accordance with municipal and utility provider standards. The Composite Utility Plan **Drawing CUP-1** is provided in **Appendix A** for reference.

8. Conclusions

This Functional Servicing Report identifies the recommended servicing design for the proposed Block 192 of the Mapleview South Subdivision. This Report, read in conjunction with the *Detailed Stormwater Management Report*, *Geotechnical Investigation, Hydrogeological Investigation, Water Network Analysis and Traffic Impact Study* outlines the proposed infrastructure required to service the lands in terms of stormwater, water servicing, wastewater, roads, grading, and conventional utilities.

This Report has been prepared based, in part, on the recommendations provided in *the Hewitt's Secondary Plan Area Subwatershed Impact Study* prepared by R.J. Burnside & Associates Ltd. (September 2016), as well as preliminary consultation with adjacent landowners. In particular, this Report has recommended the proposed development can be adequately serviced based on the following:

- The provision of storm infrastructure as outlined in **Section 2** and in the DSWMR (under separate cover);
- The provision of watermains as outlined in **Section 3**;
- The provision of gravity sanitary sewers as outlined in **Section 4**;
- The provision of Transportation Infrastructure as outlined in **Section 5** of this Report, and in the *Mapleview South Subdivision Traffic Brief* prepared by JD Engineering Inc. (June 2024) submitted under separate cover;
- The provision of Site Grading as outlined in **Section 6**; and,
- The provision of Utility Infrastructure as outlined in **Section 7**.

It is recommended that this report be accepted as fulfilling the functional servicing requirements in support of Site Plan Approval.

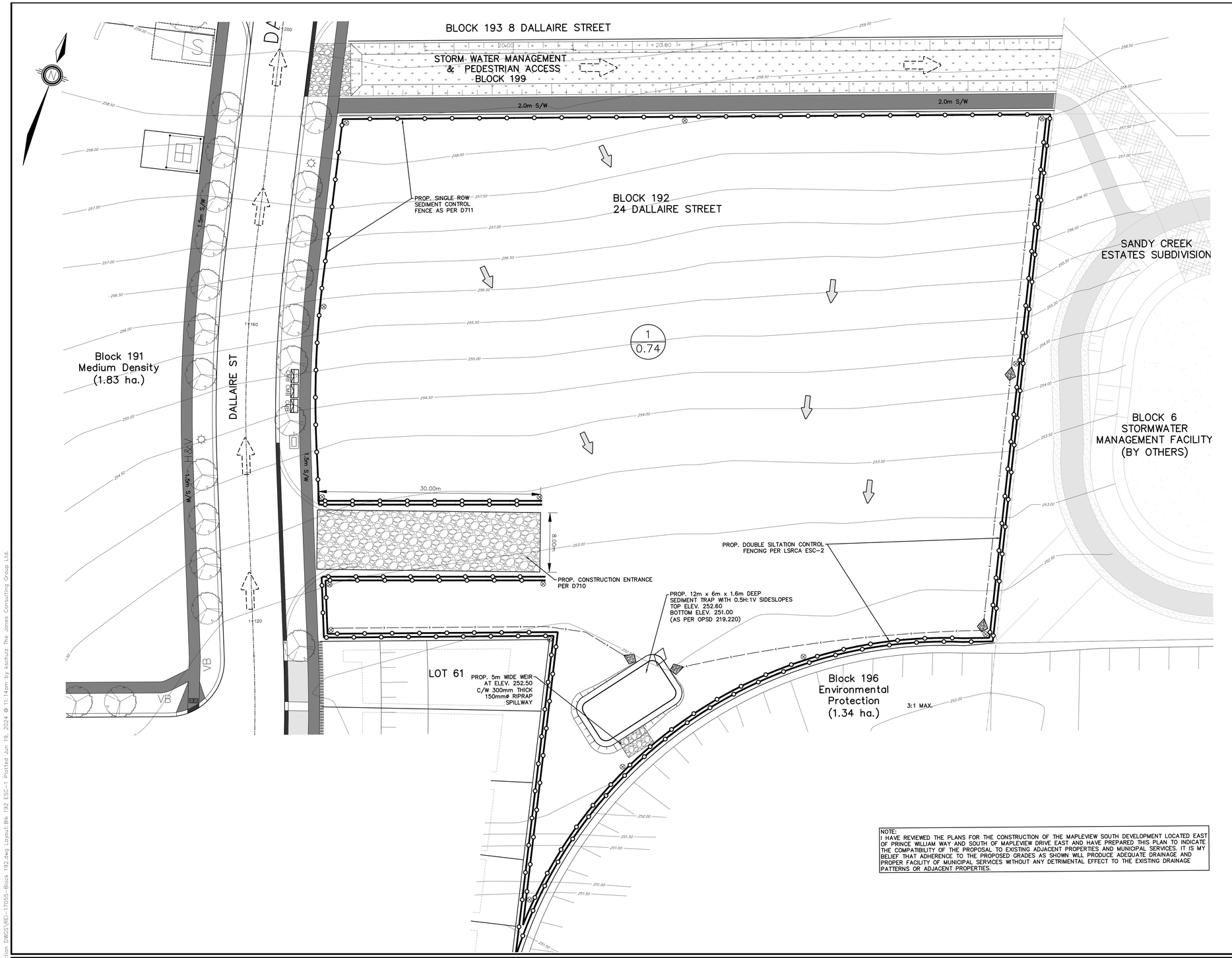
All of which is respectfully submitted,
THE JONES CONSULTING GROUP LTD.

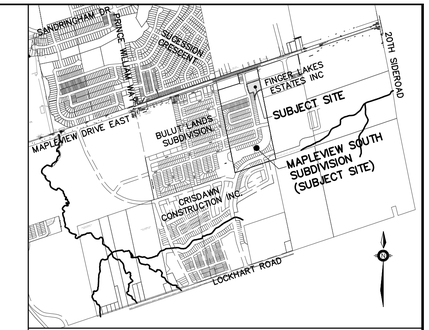
Appendix A

Engineering Drawings

- The Jones Consulting Group Ltd. – *Mapleview South (Innisfil) Ltd. 953 Mapleview Drive East, Block 192 Drawings,* Stamped June 21, 2024:

ESC-1	Erosion and Sediment Control Plan
ESC-2	Erosion and Sediment Control Plan – Notes and Details
GS-1	General Servicing Plan
GP-1	Grading Plan
STM-1	Storm Sewer Subcatchment Plan
SAN-1	Sanitary Sewer Subcatchment Plan
DS-1	Storm and Sanitary Design Sheets
WM-1	Water Swabbing Plan
CUP-1	Composite Utility Plan
PM-1	Pavement Marking, Signage and Parking Plan





KEY PLAN
NTS

LEGEND

251.0	EXISTING CONTOUR
	EX. SIGN
H&V	EX. HYDRANT & VALVE
V&B	EX. VALVE
SAP24025	EX. SANITARY MANHOLE
STM MH 12	EX. STORM MANHOLE
CB	EX. CATCHBASIN
DCB	EX. DOUBLE CATCHBASIN
BH1 259.21	EX. BORE HOLE
	TEMPORARY SWALE
	EX. DIRECTION OF OVERLAND FLOW
	DIRECTION OF EXTERNAL STORM DRAINAGE
	PROP. SILTATION CONTROL FENCE AS PER P1233
	TEMP. ROCK CHECK DAM AS PER D786
	PROPOSED CEDAR POST
	DRAINAGE BOUNDARY
	LSRCA REGULATED LIMIT
1 / 0.74	EROSION CATCHMENT AREA NUMBER / PRE-GRADE CATCHMENT AREA (ha.)
	CATCHBASIN SEDIMENT TRAP
	CLEAR AND GRUB AREA
	TOP SOIL STOCK PILE

NOTE:
I HAVE REVIEWED THE PLANS FOR THE CONSTRUCTION OF THE MAPLEVIEW SOUTH DEVELOPMENT LOCATED EAST OF PRINCE WILLIAM WAY AND SOUTH OF MAPLEVIEW DRIVE EAST AND HAVE PREPARED THIS PLAN TO INDICATE THE COMPATIBILITY OF THE PROPOSAL TO EXISTING ADJACENT PROPERTIES AND MUNICIPAL SERVICES. IT IS MY BELIEF THAT ADHERENCE TO THE PROPOSED GRADES AS SHOWN WILL PRODUCE ADEQUATE DRAINAGE AND PROPER FACILITY OF MUNICIPAL SERVICES WITHOUT ANY DETRIMENTAL EFFECT TO THE EXISTING DRAINAGE PATTERNS OR ADJACENT PROPERTIES.

REFERENCES:
1. CITY OF BARRIE LATEST MANUALS AND GUIDELINES
2. OPSD AND OPSS
3. CRYSTAL HOMES SUBDIVISION DEVELOPMENT BY TATHAM ENGINEERING LIMITED
4. SANDY COVE CREEK REALIGNMENT BY TATHAM ENGINEERING LIMITED
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BENCHMARK:
BENCHMARK NO. 03120080055 LOCATED APPROXIMATELY 1.9km EAST OF YONGE STREET, APPROXIMATELY 6m NORTH OF CENTERLINE OF MAPLEVIEW DRIVE EAST AND 35m WEST OF CITY BOUNDARY LINE. N4912122.851 E611241.154
ELEV 223.039
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ELEV 211.834
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NO.	REVISIONS	DATE	INITIAL
2.	FIRST SUBMISSION	JUNE 2024	MF
1.	ISSUED FOR PRE-CONSULTATION	JULY 2023	DR

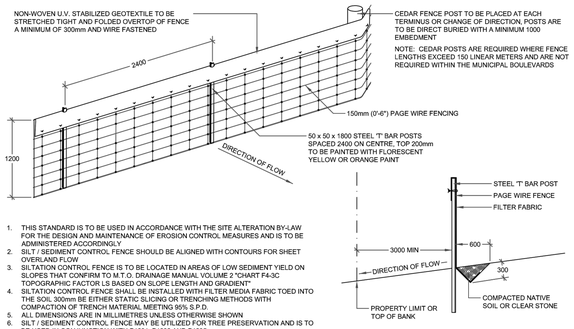
LICENSED PROFESSIONAL ENGINEER
M. G. FLIS
100149153
06-21-2024
PROVINCE OF ONTARIO

MAPLEVIEW SOUTH (INNISFIL) LTD
953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

BLOCK 192
EROSION AND SEDIMENT CONTROL PLAN

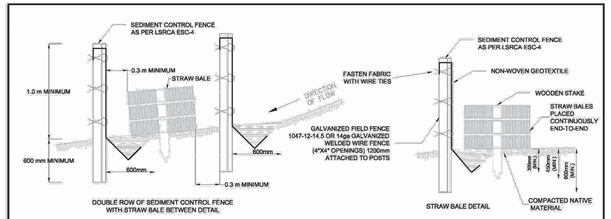
JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056

DESIGN	JJH	SCALE: 1:250	DATE MAY 2023
DRAWN	JJH	PROJECT REI-17055	DWG. № ESC-1
CHECKED	RC/DR		



1. THIS STANDARD IS TO BE USED IN ACCORDANCE WITH THE SITE ALTERATION BY-LAW FOR THE DESIGN AND MAINTENANCE OF EROSION CONTROL MEASURES AND IS TO BE ADMINISTERED ACCORDINGLY
2. SILT / SEDIMENT CONTROL FENCE SHOULD BE ALIGNED WITH CONTOURS FOR SHEET OVERLAND FLOW
3. SILTATION CONTROL FENCE IS TO BE LOCATED IN AREAS OF LOW SEDIMENT YIELD ON SLOPES THAT CONFIRM TO M.T.O. DRAINAGE MANUAL VOLUME 2 "CHART F4-3C TOPOGRAPHIC FACTOR LS BASED ON SLOPE LENGTH AND GRADIENT"
4. SILTATION CONTROL FENCE SHALL BE INSTALLED WITH FILTER MEDIA FABRIC TOED INTO THE SOIL 300mm BE EITHER STATIC SLICING OR TRENCHING METHODS WITH COMPACTION OF TRENCH MATERIAL MEETING 95% S.P.D.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
6. SILT / SEDIMENT CONTROL FENCE MAY BE UTILIZED FOR TREE PRESERVATION AND IS TO BE USED IN CONJUNCTION WITH P1231, P1232 AND P1235

Barrie	FENCE SILTATION CONTROL	REV No. 3	DATE: APR 2023
			SCALE: N.T.S.
		P1233	

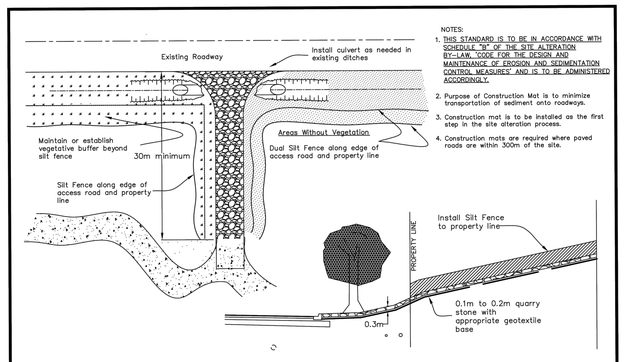


NOTES:

1. SEDIMENT CONTROL FENCE SHOULD BE ALIGNED WITH CONTOURS FOR SHEET OVERLAND FLOW.
2. SEDIMENT CONTROL FENCE IS TO BE LOCATED IN AREAS OF LOW SEDIMENT YIELD ON SLOPES THAT CONFORM TO MTO DRAINAGE MANUAL VOLUME 2 CHART F4-3C TOPOGRAPHIC FACTOR LS BASED ON SLOPE LENGTH AND GRADIENT.
3. SEDIMENT CONTROL FENCE SHALL BE INSTALLED WITH FILTER MEDIA FABRIC TIED INTO THE SOIL A MINIMUM OF 300 mm BY EITHER STATIC SLICING OR TRENCH METHODS WITH COMPACTION OF TRENCH MATERIAL MEETING 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
4. STEEL "T" BAR POSTS ARE TO BE SPACED A MAXIMUM DISTANCE OF 2000 mm ON CENTER.
5. STRAW BALES TO BE PLACED END-TO-END CONTINUOUSLY BETWEEN SEDIMENT CONTROL FENCES.
6. FROZEN GROUND CONDITIONS REQUIRE FILTER FABRIC TO BE BACKFILLED IN TRENCH WITH CLEAR STONE.
7. GEOTEXTILE FABRIC TO BE COMPRISED OF NON-WOVEN U.V. STABILIZED MATERIAL FABRIC TO BE FOLDED OVER TOP OF FENCE A MINIMUM OF 300 mm AND WIRE FASTENED.
8. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
9. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

NO.	REVISION	DATE
1	SWM GUIDELINES UPDATE	06.2016

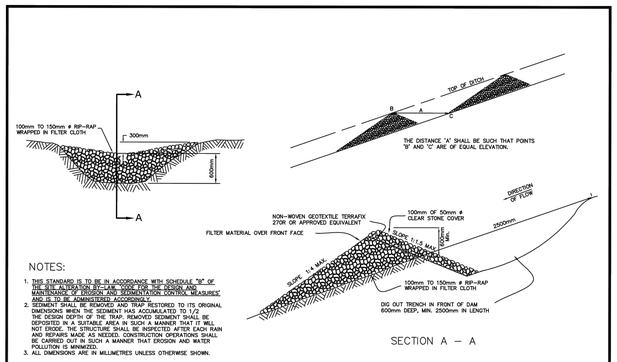
DOUBLE ROW SEDIMENT CONTROL FENCE	DATE: 06.2016 / SCALE: NTS	LSRCA ESC-5



NOTES:

1. THIS STANDARD IS TO BE IN ACCORDANCE WITH SCHEDULE "B" OF THE SITE ALTERATION BY-LAW, "CODE FOR THE DESIGN AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES" AND IS TO BE ADMINISTERED ACCORDINGLY.
2. Purpose of Construction Mat is to minimize transportation of sediment onto roadways.
3. Construction mat is to be installed as the first step in the site alteration process.
4. Construction mats are required where paved roads are within 300m of the site.

Barrie	Construction Entrance	REV No. 2	DATE: APR 2023
			SCALE: N.T.S
		D710	



NOTES:

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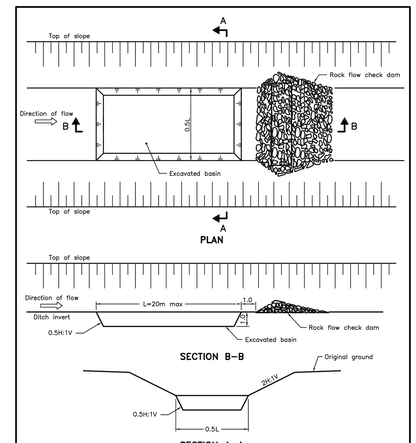
2. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DISPOSED OF IN A MANNER THAT WILL NOT ADVERSELY AFFECT FLOWS, OR ERODE. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

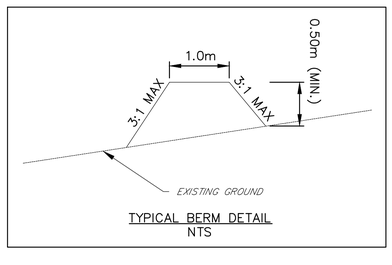
Barrie	Granular Erosion Control Device	REV No. 3	DATE: APR 2023
			SCALE: N.T.S.
		D786	



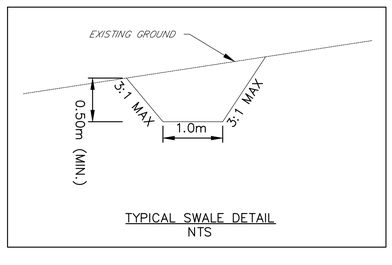
NOTES:

A Ditch cross-section upstream or downstream of sediment trap may be flat bottom or V-shaped. Flat bottom shown.
B This OPSD shall be read in conjuction with OPSD 219.210 or 219.211.
C All dimensions are in metres unless otherwise shown.

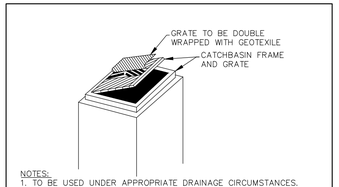
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
SEDIMENT TRAP IN DITCH		OPSD 219.220



TYPICAL BERM DETAIL
NTS



TYPICAL SWALE DETAIL
NTS



NOTES:
1. TO BE USED UNDER APPROPRIATE DRAINAGE CIRCUMSTANCES. BETWEEN APRIL AND DECEMBER.
2. WOVEN GEOTEXTILE TO HAVE A MINIMUM EQUIVALENT OPENING SIZE OF 0.15mm AND A MAXIMUM EQUIVALENT OPENING SIZE OF 0.25mm OR A NON WOVEN GEOTEXTILE TO BE CONSIDERED BASED ON SOIL PARAMETERS AND SITE CONDITIONS.
3. GEOTEXTILE TO BE REPLACED PERIODICALLY WHEN ACCUMULATED SEDIMENTS INTERFERES WITH DRAINAGE, OR AS DIRECTED BY THE ENGINEER..

CATCHBASIN SEDIMENT TRAP
N.T.S.

EROSION CONTROL NOTES

1. THE ACCOMPANYING PLANS SET OUT THE MEASURES THAT WILL BE TAKEN BY THE DEVELOPER AND ITS CONTRACTORS TO CONTROL DOWNSTREAM SEDIMENT TO THE LOWEST LEVEL PRACTICALLY ACHIEVABLE. THE CONDITIONS AND TECHNIQUES SET OUT ARE TO BE FOLLOWED UNLESS APPROVED OTHERWISE BY THE CONTRACT ADMINISTRATOR, CONSERVATION AUTHORITY AND/OR MUNICIPALITY.
2. ALL TEMPORARY SILT CONTROL AND EROSION PROTECTION DEVICES (I.E. SILT FENCING, DRAINAGE SWALES, ROCK CHECK DAMS, SEDIMENT BASIN, GRAVEL ACCESS PAD, ETC.) SHALL BE CONSTRUCTED PRIOR TO COMMENCEMENT OF SITE WORKS AND SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND THE GRASS HAS ESTABLISHED GROWTH, SUBJECT TO APPROVAL BY THE CITY OF BARRIE APPROVALS BRANCH.
3. ALL SEDIMENTATION CONTROL MEASURES ARE TO BE INSPECTED REGULARLY (MINIMUM WEEKLY), AS WELL AS AFTER EVERY RAINFALL EVENT AND ANY DAMAGED SILT CONTROL AND EROSION PROTECTION DEVICES SHALL BE PROMPTLY REPAIRED OR REPLACED BY THE CONTRACTOR.
4. THE CONTRACTOR MUST USE MATERIALS, CONSTRUCTION PRACTICES, AND MITIGATION TECHNIQUES IN ORDER TO PREVENT THE UNAUTHORIZED HARMFUL ALTERATION, DISRUPTION OR DESTRUCTION OF VEGETATION OR THE IMPAIRMENT OF WATER QUALITY.
5. THE CONTRACTOR SHALL BE PREPARED FOR UNEXPECTED CONDITIONS AND ACCORDINGLY HAVE STOCKPILED MATERIALS ON SITE FOR NECESSARY REPAIRS AS A RESULT OF FAILED OR INADEQUATE CONTROL MEASURES.
6. AREAS WITHOUT STABLE GROUND COVER SHALL BE PROTECTED WITH SILTATION CONTROL FENCING, STRAW MULCH, ETC, AND MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION HAS BECOME ESTABLISHED IN THE SUBSEQUENT GROWING SEASON.
7. ALL EXPOSED SOIL MUST BE GRADED TO A STABLE SLOPE AND TREATED AS QUICKLY AS POSSIBLE TO PREVENT EROSION AND SEDIMENT FROM LEAVING THE SITE. ALL AREA STRIPPED OF VEGETATIVE COVER FOR LONGER THAN 30 DAYS SHALL BE TOPSOILED AND SEEDED AT THE DIRECTION OF THE ENGINEER.
8. ALL SITE DRAINAGE TO BE DIRECTED TO THE TEMPORARY SEDIMENT BASINS AND OTHER CHECK DAMS VIA SHEET DRAINAGE, BERMS OR SWALES (AS NECESSARY) TO FACILITATE THE COMPLETION OF GRADING WORKS. THE CONTRACTOR SHALL CONSTRUCT ANY ADDITIONAL SWALES OR BERMS THAT MAY BE NECESSARY TO DIRECT RUN-OFF IN A CONTROLLED MANNER OF SUITABLE QUALITY.
9. ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE FROM THE PROPOSED CONSTRUCTION ACCESS VIA THE GRAVEL ACCESS PAD.
10. ANY DEWATERING WASTE SHALL BE DISCHARGED TO A VEGETATED AREA AT LEAST 30m FROM ANY WATERCOURSE AND FILTERED. FILTERING METHOD SHALL INCLUDE APPROPRIATELY SIZED DEWATERING BAG (FILTER BAG) ON TOP OF A 300mm THICK CLEARSTONE PAD TO BE APPROVED BY SITE INSPECTOR AND LSRCA. DEWATERING BAG AND CLEARSTONE PAD SHALL BE MAINTAINED IN GOOD WORKING ORDER AND REPLACED AS DEEMED NECESSARY.
11. TECHNIQUES FOR EROSION AND SEDIMENT CONTROLS ARE TO ADHERE TO ACCEPTED ENGINEERING PRACTICE AND MUNICIPAL, CONSERVATION AUTHORITY AND ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS. THE CONTRACTOR SHALL OBTAIN A CURRENT COPY AND BECOME FAMILIAR WITH OPSS 805; CONSTRUCTION SPECIFICATION FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, AS WELL AS APPLICABLE MUNICIPAL STANDARDS AND/OR APPROVAL AGENCY STANDARDS.
12. THE CONTRACTOR MAY CONSIDER ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES, SUCH MEASURES MUST BE PRESENTED IN WRITING FOR APPROVAL BY THE CONTRACT ADMINISTRATOR AND MUST BE APPROVED IN WRITING BY THE APPLICABLE APPROVAL AGENCIES.

CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE IS PROVIDED FOR CONTRACTOR GUIDANCE:

1. CONSTRUCT ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES INCLUDING SILT FENCE, TREE PRESERVATION FENCE, MUD MATS, CHECK DAMS, SEDIMENT BASINS, SWALES/BERMS, ETC.
2. HYDRO SEED ALL EROSION CONTROL WORKS I.E. TEMPORARY DRAINAGE SWALES/BERMS.
3. STRIPPING AND REMOVAL OF TOPSOIL. A VOLUME OF TOPSOIL TO BE STORED ON-SITE AS REQUIRED TO FACILITATE RESTORATION OF SITE.
4. PROCEED WITH EARTH EXCAVATION, CUT TO FILL AND PRE-GRADING OPERATIONS. ALL AREAS STRIPPED OF VEGETATIVE COVER FOR A PERIOD GREATER THAN 30 DAYS SHALL BE HYDRO SEEDED AS DIRECTED BY THE ENGINEER.
5. PROCEED WITH SITE WORKS I.E. SITE SERVICING AND SURFACE WORKS INSTALLATIONS.
6. RESTORATION OF DISTURBED AREAS.
7. REMOVAL OF SEDIMENT AND EROSION CONTROLS.

NOTE SILTATION AND EROSION CONTROL MEASURES ARE TO BE MONITORED AND MAINTAINED THROUGHOUT CONSTRUCTION AND NECESSARY REPAIRS TO BE PROMPTLY COMPLETED AS REQUIRED.

CONTINGENCY PLAN

IF UNFORESEEN EVENTS CAUSE THE STRATEGIES SET OUT IN THIS PLAN TO BE INSUFFICIENT OR INAPPROPRIATE TO MEET THE OBJECTIVE, THE CONTRACTOR IS EXPECTED TO RESPOND IN A TIMELY MANNER WITH ALL REASONABLE MEASURES CONSISTENT WITH SAFETY, TO PREVENT, COUNTERACT OR REMEDY DOWNSTREAM SEDIMENTATION AND EROSION.

IF A SPILL OCCURS IT SHALL BE REPORTED TO THE MINISTRY OF ENVIRONMENT, CONSERVATION AND PARKS SPILLS ACTION CENTRE AT 1-800-268-6060 AND THE ON CALL CITY OF BARRIE ENVIRONMENTAL OFFICER SHOULD ALSO BE NOTIFIED VIA CELL PHONE AT (705) 725-3374.

IF APPROVAL AGENCIES DETERMINE THAT LONG TERM DAMAGE TO THE NATURAL ENVIRONMENT HAS OCCURRED DUE TO FAILURE OF THIS PLAN TO CONTROL SEDIMENTS, A RESTORATION PLAN WILL BE DEVELOPED BY THE CONTRACTOR IN CONSULTATION WITH AND APPROVAL FROM THE APPROPRIATE AGENCIES FOR IMPLEMENTATION BY THE CONTRACTOR.

HYDRO SEEDING

1. ALL TEMPORARY EROSION AND SEDIMENT CONTROL SWALES AND BERMS TO BE HYDRO SEEDED IMMEDIATELY FOLLOWING CONSTRUCTION.
2. ALL AREAS STRIPPED OF VEGETATIVE COVER FOR LONGER THAN 30 DAYS SHALL BE HYDRO SEEDED AS DIRECTED BY THE ENGINEER.
3. HYDRO SEED MIX TO BE 48% ANNUAL RYE GRASS, 48% FALL RYE AND 4% RED CLOVER (100 kg/Ha) WITH FIBRATAC TACTIFIER OR APPROVED EQUIVALENT.

SITE DATA	
OVERALL SITE AREA TO BE DISTURBED	0.74Ha
EXISTING LAND USE	(VACANT) AGRICULTURAL FIELD
PREDOMINANT SOIL TYPE	BONDHEAD SANDY LOAM
SEDIMENT TRAP SIZING	
BOTTOM ELEVATION	251.00
TOP ELEVATION	252.60
OVERFLOW WEIR ELEVATION	252.50
DIMENSIONS (LxWxD)	12x6x1.6
STORAGE VOLUME	115.2m3
CATCHMENT AREA	0.74 Ha
REQUIRED ACTIVE STORAGE VOLUME BASED ON 125cu.m/Ha OF DRAINAGE AREA TO POND	92.50m3

NOTE:
I HAVE REVIEWED THE PLANS FOR THE CONSTRUCTION OF THE MAPLEVIEW SOUTH DEVELOPMENT LOCATED EAST OF PRINCE WILLIAM WAY AND SOUTH OF MAPLEVIEW DRIVE EAST AND HAVE PREPARED THIS PLAN TO INDICATE THE COMPATIBILITY OF THE PROPOSAL TO EXISTING ADJACENT PROPERTIES AND MUNICIPAL SERVICES. IT IS MY BELIEF THAT ADHERENCE TO THE PROPOSED GRADES AS SHOWN WILL PRODUCE ADEQUATE DRAINAGE AND PROPER FACILITY OF MUNICIPAL SERVICES WITHOUT ANY DETRIMENTAL EFFECT TO THE EXISTING DRAINAGE PATTERNS OR ADJACENT PROPERTIES.

REFERENCES:

1. CITY OF BARRIE LATEST MANUALS AND GUIDELINES
2. OPSD AND OPSS
3. CRYSTAL HOMES SUBDIVISION DEVELOPMENT BY TATHAM ENGINEERING LIMITED
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BLOCK 192
EROSION AND SEDIMENT
NOTES AND DETAILS

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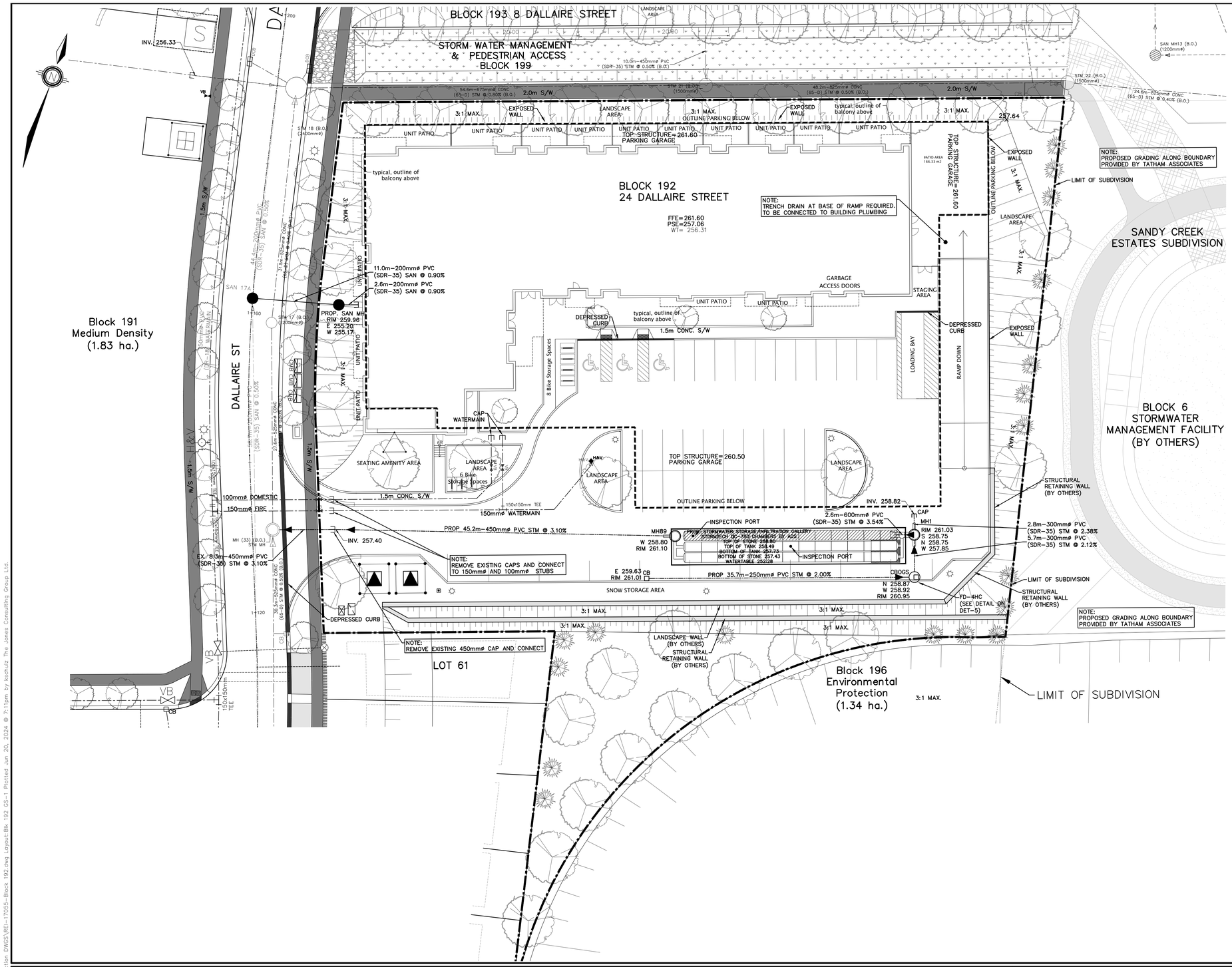
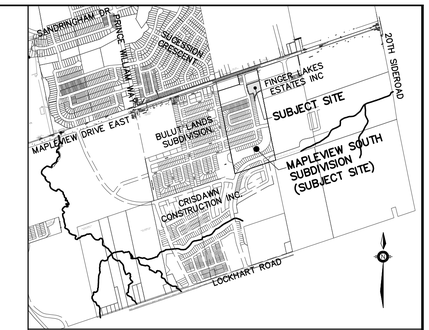
DESIGN JT	SCALE: N/A	DATE MAY 2023
DRAWN JT	PROJECT REI-17055	DWG. № ESC-2
CHECKED DR		





KEY PLAN
NTS

LEGEND

- SITE PLAN BOUNDARY
- EXISTING CONTOUR
- EXISTING VEGETATION
- SLOPE (3:1 MAX.)
- H&V — HYDRANT AND VALVE
- VB — VALVE AND BOX
- BELL PEDESTAL, BELL VAULT
- CABLE VAULT
- SAN1 — SANITARY MAINTENANCE HOLE
- SANITARY SEWER AND DIRECTION OF FLOW
- STORM SEWER AND DIRECTION OF FLOW
- STM1 — STORM MAINTENANCE HOLE
- CB — CATCH BASIN
- DCB — DOUBLE CATCH BASIN
- DCBMH 36 — DOUBLE CATCHBASIN MANHOLE
- CBMH 36 — CATCHBASIN MANHOLE
- DROPPED CURB
- SIDEWALK TACTILE PLATES
- LIGHT PEDESTAL
- TRANSFORMER

REFERENCES:

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2.	FIRST SUBMISSION	JUNE 2024	MF
1.	ISSUED FOR PRE-CONSULTATION	JULY 2023	DR

LICENSED PROFESSIONAL ENGINEER
M. G. FLIS
100149153
06-21-2024
PROVINCE OF ONTARIO

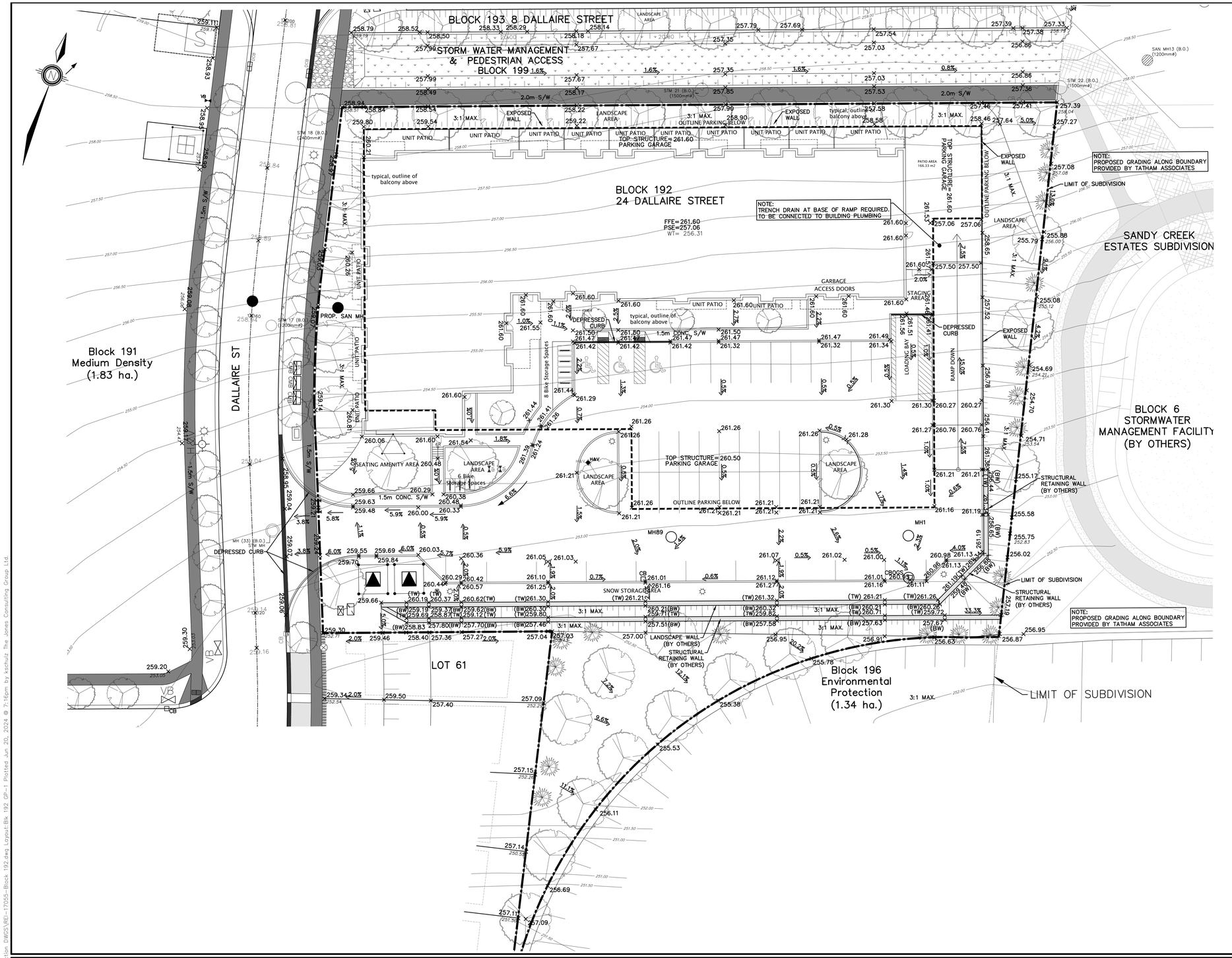
MAPLEVIEW SOUTH (INNISFIL) LTD
953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

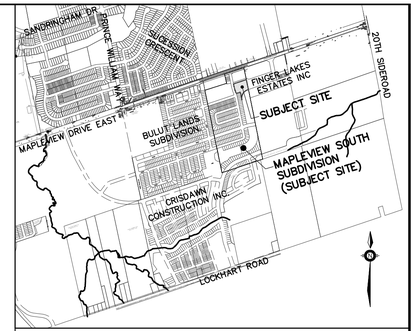
BLOCK 192

SERVICING PLAN

JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056

DESIGN JJH	SCALE: 1:250	DATE MAY 2023	
DRAWN JJH	PROJECT REI-17055	DWG. № GS-1	
CHECKED RC/DR			





KEY PLAN
NTS

LEGEND

- SITE PLAN BOUNDARY
- EXISTING CONTOUR
- EXISTING VEGETATION
- SLOPE (3:1 MAX.)
- H&V — HYDRANT AND VALVE
- VB — VALVE AND BOX
- BELL PEDESTAL, BELL VAULT
- CABLE VAULT
- SAN1 — SANITARY MAINTENANCE HOLE
- STM1 — STORM MAINTENANCE HOLE
- CB — CATCH BASIN
- DCB — DOUBLE CATCH BASIN
- DCBMH 36 — DOUBLE CATCHBASIN MANHOLE
- CBMH 36 — CATCHBASIN MANHOLE
- DROPPED CURB
- SIDEWALK TACTILE PLATES
- LIGHT PEDESTAL
- S — SWITCHGEAR & 5.0x8.0m EASEMENT LIMIT
- TRANSFORMER
- 259.35 / 253.66 — PROPOSED GROUND ELEVATON / EXISTING GROUND ELEVATON
- 2.0% — DIRECTION OF FLOW & GRADIENT
- FFE= — FIRST FLOOR ELEVATION
- PSE= — UNDERGROUND PARKING SLAB ELEVATION
- WT= — HIGH GROUNDWATER TABLE
- (TW) — TOP OF RETAINING WALL
- (BW) — BOTTOM OF RETAINING WALL

REFERENCES:

1. CITY OF BARRIE LATEST MANUALS AND GUIDELINES
2. OPSD AND OPSS
3. CRYSTAL HOMES SUBDIVISION DEVELOPMENT BY TATHAM ENGINEERING LIMITED
4. SANDY COVE CREEK REALIGNMENT BY TATHAM ENGINEERING LIMITED
5. BULUT LANDS SUBDIVISION DEVELOPMENT BY SCHAEFFERS CONSULTING ENGINEERING
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13. HEWITT'S SECONDARY PLAN AREA SIS BY R.J. BURNSIDE & ASSOCIATES LIMITED
14. LSRCA LATEST MANUALS AND GUIDELINES

BENCHMARK:

BENCHMARK NO. 03120080055 LOCATED APPROXIMATELY 1.9km EAST OF YONGE STREET, APPROXIMATELY 6m NORTH OF CENTERLINE OF MAPLEVIEW DRIVE EAST AND 35m WEST OF CITY BOUNDARY LINE. N4912122.851 E611241.154
ELEV 223.039
BENCHMARK NO. 03120110020 LOCATED ON MAPLEVIEW DRIVE EAST ON THE SOUTH SIDE OF THE BOULEVARD, APPROXIMATELY 790m WEST OF THE MAPLEVIEW DRIVE EAST AND 20TH SIDE ROAD INTERSECTION. N4912264.547 E611717.298
ELEV 225.549
BENCHMARK NO. 03120080008. LOCATED ON THE NORTH SIDE OF MAPLEVIEW DRIVE EAST (12TH CONCESSION ROAD), APROXIMATELY 0.8km EAST OF YONGE STREET (HWY #11) AND APPROXIMATELY 10.0m NORTH OF MAPLEVIEW DRIVE EAST CENTERLINE. N4911763.816 E610187.698
ELEV 211.834
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LICENSED PROFESSIONAL ENGINEER
M. G. FLIS
100149155
06-21-2024
PROVINCE OF ONTARIO

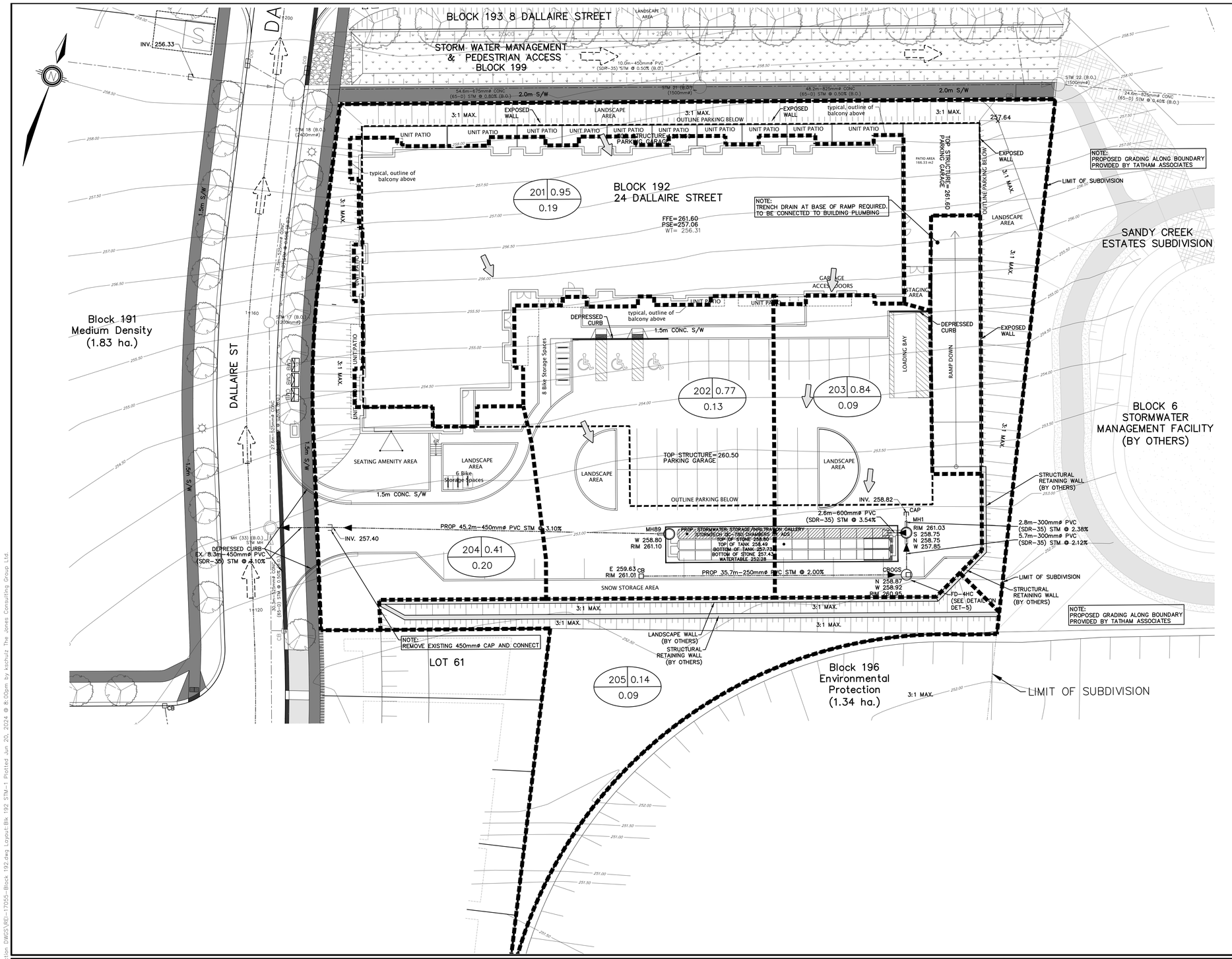
MAPLEVIEW SOUTH (INNISFIL) LTD
953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

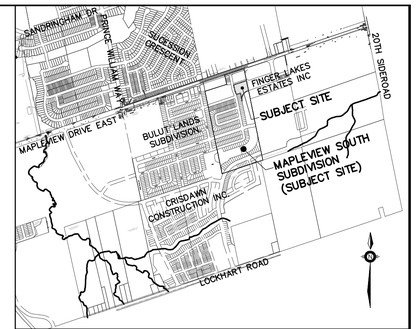
BLOCK 192

GRADING PLAN

JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056

DESIGN JJH	SCALE: 1:250	DATE MAY 2023	
DRAWN JJH	PROJECT REI-17055	DWG. Nº GP-1	
CHECKED RC/DR			





KEY PLAN
NTS

LEGEND

- PROPOSED STORM DRAINAGE BOUNDARY
- PROPOSED OVERLAND DRAINAGE FLOW DIRECTION
- DIRECTION OF EXTERNAL STORM DRAINAGE
- INTERNAL CATCHMENT AREA NUMBER — 401 | 0.15 / 0.27 — RUNOFF COEFFICIENT / AREA (ha)
- EXTERNAL CATCHMENT AREA NUMBER — 502 | 0.32 / 0.07 — RUNOFF COEFFICIENT / AREA (ha)
- STM1 — PROPOSED STORM MAINTENANCE HOLE
- STM12 — PROPOSED CATCHBASIN MAINTENANCE HOLE
- DCB1 — PROPOSED DOUBLE CATCHBASIN
- CB2 — PROPOSED CATCHBASIN

NOTE:
REFER TO DESIGN SHEET ON DRAWING DS-1

REFERENCES:

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LICENSED PROFESSIONAL ENGINEER M. G. RJS 100149153 06-21-2024 PROVINCE OF ONTARIO

MAPLEVIEW SOUTH (INNISFIL) LTD
953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

BLOCK 192
STORM SEWER
SUBCATCHMENT PLAN

JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
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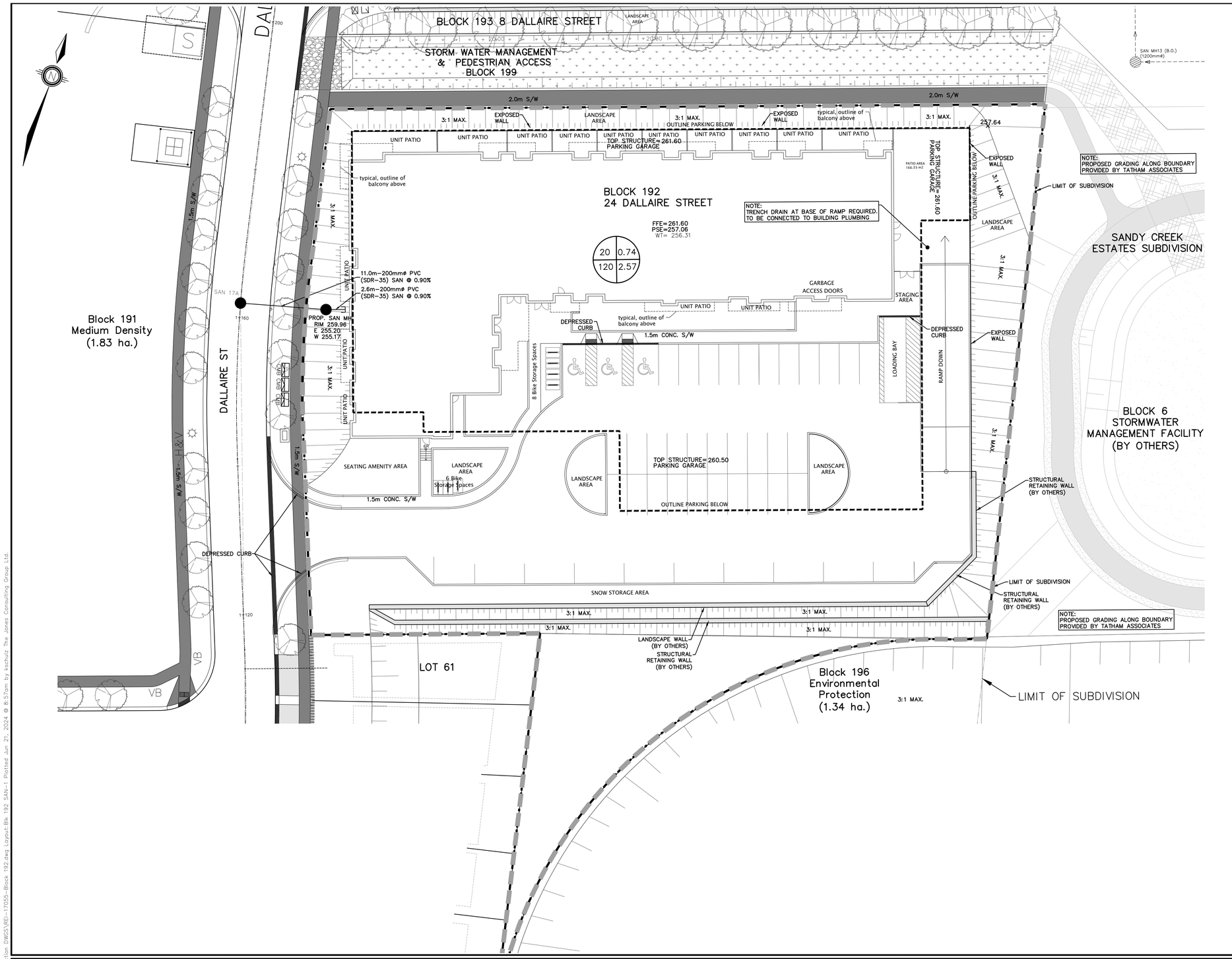

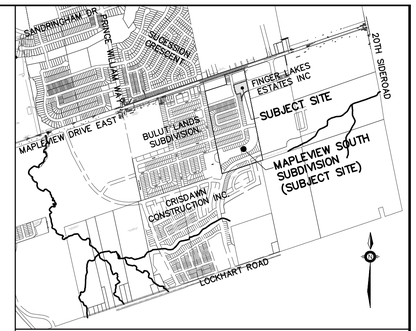

KEY PLAN
NTS

LEGEND

PROPOSED SANITARY DRAINAGE BOUNDARY

PROPOSED SANITARY DRAINAGE DIRECTION

SANITARY CATCHMENT AREA ID No. — 20 — 0.74 — AREA (ha)
NO. OF UNITS — 120 — 2.57 — PERSONS PER UNIT

SAN01 PROPOSED SANITARY MAINTENANCE HOLE

NOTE:
REFER TO DESIGN SHEET ON DRAWING DS-1

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DESIGN JJH	SCALE: 1:250	DATE MAY 2023	
DRAWN JJH	PROJECT REI-17055	DWG. № SAN-1	
CHECKED RC/DR			

BLK 192 STORM SEWER DESIGN - MINOR SYSTEM

Barrie

Design flow in (m^3/s)	Q= C·I·A / 360	Pipe capacity (m^3/s)	Q	Client:	Anthony Reino
Site specific runoff coefficient	C	Manning roughness value	n=0.013	Project:	Mapleview South (Innisfil) LTD
Rainfall intensity (mm/hr)	I = A/(T.C. + B)^C	Cross sectional area of pipe (m^2)	A	Address:	953 Mapleview Drive East - BLK 192
function of the local intensity-duration data	A= 843.019	Hydraulic Radius (m)	R_h	File:	REI-17055
function of the local intensity-duration data	B= 4.582	Sewer pipe slope (m/m)	S	Design:	KR
function of the local intensity-duration data	C= 0.763	Velocity of flow (m/s)	V	Check:	MF
Max. time of concentration (min)	T.C.= 10			Date:	June 19 2024
Drainage area (ha)	A			Design sheet:	DS-1

AREAS	Street	MANHOLE FROM	MANHOLE TO	LENGTH (m)	INCREMENT C	INCREMENT A	INCREMENT CA	TOTAL CA	FLOW TIME (min) TO	FLOW TIME (min) IN	I (mm/h)	TOTAL Q (cms)	S (%)	D (mm)	Q FULL (cms)	V FULL (m/s)	% FULL
201	BLK 192	STUB	MH1	2.8	0.95	0.19	0.18	0.18	10.00	0.02	109	0.055	2.40	300	0.150	2.1	***36.7***
202	BLK 192	CB1	OGS	35.7	0.77	0.13	0.10	0.10	10.00	0.35	109	0.030	2.00	250	0.084	1.7	***36.2***
203	BLK 192	OGS	MH1	5.7	0.84	0.09	0.08	0.18	10.35	0.05	107	0.053	2.10	300	0.140	2.0	***38.0***
	BLK 192	MH1	LID	2.6				0.36	10.40	0.01	107	0.107	3.50	600	1.149	4.1	***9.3***
	BLK 192	LID	MH33 (B.O)	45.2				0.36	10.41	0.24	107	0.107	3.10	450	0.502	3.2	***21.3***

MAPLEVIEW SOUTH SUBDIVISION SANITARY DESIGN SHEET
(DETAILED DESIGN 1ST SUBMISSION, JUNE 2023)

SANITARY SEWER DESIGN - LOCAL SEWER
Development Details Basis

Barrie

DESIGN SHEET 1 of 1
FILE NO REI-17055
CONTRACT / PROJECT MAPLEVIEW SOUTH (INNISFIL) LTD.

n ≥ 0.013
M = 5/P^0.2 Babbit
M=1+[14/(4+P^0.5)] Harmon
Q_p = P*q*M/86.4
Q_i = I*A
Q_{tot} = Q_p + Q_i
$Q_{Commercial}$

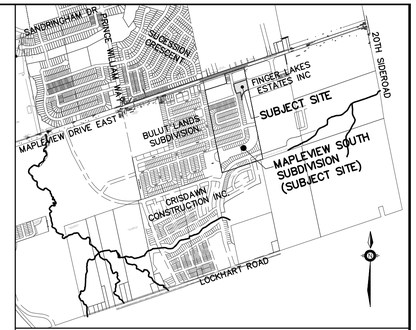
Numbers in blue or text in red are equations
(Harmon or Babbitt peaking factor where; M ≥ 2), the greater of the two is used in the spreadsheet. Please refer to Section 3.3.1.1 of the Barrie Sanitary Design Guidelines for additional guidance on which peaking factor to use.
(Peak population flow where; q = 225 L/day/person; P = population in thousands) 225 litres/person/day
(Peak extraneous flow: I= 0.1L/s/ha over development area)
(Total peak flow as the sum of peak population flow and peak extraneous flow)
See Note 1.

AREA - STREET	MAINTENANCE HOLE FROM	MAINTENANCE HOLE TO	DWELL UNITS	DWELL (ACC) UNITS	DENSITY P.P.U.	POP. (P)	POP. (ACC)	M PEAKING FACTOR BABBIT	M PEAKING FACTOR HARMON	Max PEAKING FACTOR	Q_p (l/s)	AREA (ha)	AREA (ACC) (ha)	Q_i (l/s)	Q_{tot} (l/s)	L (m)	D (mm)	S (%)	Qf FULL (l/s)	d/D(2)	d/D(3) >0.5 or >0.7	Velocity FULL (m/s)	Velocity Partial(4) (m/s)	Velocity(4) > 0.6 (m/s)
1A - Colosimo Cres			8		3.25	26																		
1B - Colosimo Cres	SAN 01A	SAN 02A	8	16	2.57	21	47	9.234	4.321	9.234	1.120	0.49	0.49	0.049	1.169	52.2	200	2.00	46.384	0.109	Ok	1.476	0.618	Ok
2A - Colosimo Cres			10		3.25	33																		
2B - Colosimo Cres	SAN 02A	SAN 03A	16	42	2.57	41	120	7.638	4.221	7.638	2.391	0.76	1.25	0.125	2.516	108.7	200	1.10	34.399	0.183	Ok	1.095	0.628	Ok
3 - Dallaire St	SAN 03A	SAN 04A	6	48	3.25	20	140	7.412	4.201	7.412	2.696	0.32	1.57	0.157	2.853	74.6	200	1.00	32.798	0.199	Ok	1.044	0.629	Ok
4 - Colosimo Cres	SAN 05A	SAN 06A	8	8	3.25	26	26	10.375	4.364	10.375	0.702	0.39	0.39	0.039	0.741	58.5	200	2.00	46.384	0.088	Ok	1.476	0.534	Check
5 - Colosimo Cres	SAN 06A	SAN 07A	3	11	3.25	10	36	9.735	4.342	9.735	0.906	0.19	0.58	0.058	0.964	14.7	200	2.00	46.384	0.099	Ok	1.476	0.577	Check
6 - Colosimo Cres	SAN 07A	SAN 08A	18	29	3.25	59	94	8.019	4.251	8.019	1.968	0.64	1.22	0.122	2.090	80.7	200	1.20	35.929	0.163	Ok	1.144	0.610	Ok
7 - Colosimo Cres	SAN 08A	SAN 04A	13	42	3.25	42	137	7.446	4.204	7.446	2.647	0.53	1.75	0.175	2.822	76.4	200	1.00	32.798	0.198	Ok	1.044	0.627	Ok
8 - Dallaire St	SAN 04A	SAN 09A	5	95	3.25	16	292	6.394	4.083	6.394	4.869	0.33	3.65	0.365	5.234	77.6	200	0.60	25.406	0.307	Ok	0.809	0.623	Ok
9 - Dallaire St	SAN 10A	SAN 11A	2	2	3.25	7	7	13.689	4.431	13.689	0.232	0.13	0.13	0.013	0.245	18.8	200	2.00	46.384	0.052	Ok	1.476	0.379	Check
10 - Dallaire St	SAN 11A	SAN 09A	5	7	3.25	16	23	10.655	4.373	10.655	0.631	0.29	0.42	0.042	0.673	64.1	200	2.00	46.384	0.084	Ok	1.476	0.518	Check
11 - McAush St	SAN 09A	SAN 12A	16	118	3.25	52	367	6.109	4.040	6.109	5.842	0.77	4.84	0.484	6.326	105.8	200	0.50	23.192	0.356	Ok	0.738	0.615	Ok
12 - McAush St	SAN 12A	SAH 34063 (B.O.)	18	136	3.25	59	426	5.931	4.009	5.931	6.575	0.83	5.67	0.567	7.142	102.8	200	0.50	23.192	0.380	Ok	0.738	0.635	Ok
EXT - McAush St	SAH 34063 (B.O.)	SAH 34066 (B.O.)		136			426	5.931	4.009	5.931	6.575		5.67	0.567	7.142	40.4	200	0.50	23.192	0.380	Ok	0.738	0.635	Ok
13 - Dallaire St	SAN 10A	SAN 13A	17	17	3.25	55	55	8.923	4.306	8.923	1.284	0.79	0.79	0.079	1.363	101.2	200	1.70	42.764	0.122	Ok	1.361	0.606	Ok
14 - Dallaire St	SAN 13A	SAH 34067 (B.O.)	12	29	3.25	39	94	8.019	4.251	8.019	1.968	0.59	1.38	0.138	2.106	95.6	200	1.20	35.929	0.164	Ok	1.144	0.610	Ok
EXT - Dallaire St	SAH 34067 (B.O.)	SAH 34068 (B.O.)		29			94	8.019	4.251	8.019	1.968		1.38	0.138	2.106	40.1	250	1.20	65.143	0.123	Ok	1.327	0.594	Check
15 - MD BLK 191	STUB	SAN 14A	300	300	2.57	771	771	5.267	3.870	5.267	10.575	1.83	1.83	0.183	10.758	11.0	200	0.50	23.192	0.478	Ok	0.738	0.721	Ok
16 - Lotus Rd	SAN 14A	SAN 15A	14	314	2.57	36	807	5.219	3.858	5.219	10.968	0.42	2.25	0.225	11.193	85.4	200	0.60	25.406	0.464	Ok	0.809	0.779	Ok
17 - Lotus Rd	SAN 15A	SAN 16A	10	324	2.57	26	833	5.186	3.850	5.186	11.247	0.33	2.58	0.258	11.505	77.4	200	0.60	25.406	0.471	Ok	0.809	0.783	Ok
18 - Dallaire St	SAN 03A	SAN 16A	7	7	3.25	23	23	10.655	4.373	10.655	0.631	0.33	0.33	0.033	0.664	77.5	200	2.00	46.384	0.083	Ok	1.476	0.518	Check
19 - Dallaire St	SAN 16A	SAN 17A	2	333	3.25	7	862	5.151	3.841	5.151	11.562	0.16	3.07	0.307	11.869	58.7	200	0.50	23.192	0.506	Check	0.738	0.738	Ok
20 - MD BLK 192	STUB	SAN 17A	~~100~~120	~~100~~120	2.57	~~287~~309	~~287~~309	~~5.561~~ 6.324	~~4.196~~ 4.073	~~5.561~~ 6.324	~~4.991~~ 5.089	0.74	0.74	0.074	~~1.485~~ 5.163	11.0	200	0.90	31.115	0.278	~~0.265~~	Ok	0.990	~~0.699~~ 0.729	Ok
21 - Dallaire St	SAN 17A	SAN 18A	2	~~135~~455	2.57	~~3~~ 6	~~1124~~1177	~~4.884~~ 4.840	~~3.767~~ 3.753	~~4.884~~ 4.840	~~14.239~~14.833	0.22	4.03	0.403	~~14.281~~ 15.236	70.3	200	0.50	23.192	0.595	~~0.577~~	Check	0.738	~~0.775~~ 0.783	Ok
		Landuse			Q m^3/d/ha	~~Q m3/d/ha~~																		
22 - MD BLK 193*		Commercial			28	~~26~~ 79*	79*	8.307	4.270	~~2.608~~8.307	~~0.830~~ 1.709	~~0.050~~0.63	0.63		~~0.830~~1.709									
22 - MD BLK 193	STUB	SAN 18A	~~80~~100	~~80~~100	2.57	~~206~~257	~~206~~336	~~5.561~~ 6.219	~~4.146~~4.057	~~5.561~~6.219	~~3.873~~5.441	~~0.02~~0.63	~~0.02~~0.63	~~0.002~~0.063	~~3.765~~7.213	11.0	200	1.00	32.798	0.31	~~0.226~~	Ok	1.044	~~0.665~~ 0.772	Ok
23 - Dallaire St	SAN 18A	SAH 33887 (B.O.)	4	~~519~~559	2.57	~~10~~ 11	~~1340~~1524	~~4.715~~ 4.596	~~3.714~~3.678	~~4.715~~4.596	~~16.415~~18.239	0.14	~~4.79~~4.80	~~0.479~~ 0.480	~~18.895~~ 20.420	37.5	250	0.80	53.189	0.439	~~0.385~~	Ok	1.084	~~0.931~~ 0.981	Ok
24 - Lotus Rd	SAN 14A	SAH 34087 (B.O.)	7	7	2.57	18	18	11.168	4.386	11.168	0.523	0.21	0.21	0.021	0.544	45.8	200	4.50	69.576	0.062	Ok	2.215	0.647	Ok
EXT - Lotus Rd	SAH 34087 (B.O.)	SAH 34088 (B.O.)		7			18	11.168	4.386	11.168	0.523		0.21	0.021	0.544	39.5	250	2.00	84.100	0.057	Ok	1.713	0.474	Check
25 - Terry Fox Dr	SAN 20A	SAN 21A	13	13	3.25	42	42	9.415	4.329	9.415	1.036	0.66	0.66	0.066	1.102	80.6	200	2.00	46.384	0.106	Ok	1.476	0.603	Ok
26 - Terry Fox Dr	SAN 21A	SAN 22A	16	29	3.25	52	94	8.019	4.251	8.019	1.968	0.91	1.57	0.157	2.125	109.9	200	1.20	35.929	0.165	Ok	1.144	0.610	Ok
27 - Giovanni Cres	SAN 23A	SAN 22A	2	2	3.25	7	7	13.689	4.431	13.689	0.232	0.22	0.22	0.022	0.254	38.3	200	2.00	46.384	0.053	Ok	1.476	0.379	Check
28 - Terry Fox Dr	SAN 22A	SAN 24A	8	39	3.25	26	127	7.558	4.214	7.558	2.495	0.70	2.49	0.249	2.744	99.4	200	1.00	32.798	0.195	Ok	1.044	0.615	Ok

Date: ~~June 2023~~ June 2024 CALCULATED BY: ~~JBS~~ MG CHECKED BY: ~~BC~~ MF

(1) without extraneous flow
(2) with extraneous flow
(3) d/D>0.5 for pipes 375 and less, d/D>0.7 for pipes greater than 375
(4) Velocity check based on the lesser of full flow or partial velocity
Numbers in Blue are cell formulas

* Note: An equivalent population of 79 people was calculated for the Commercial Landuse within Block 193 by multiplying the anticipated flowrate per hectare (28 m^3/d/ha) by the area (0.63 ha) and dividing it by the peak population flow converted to m^3/person/day (0.225 m^3/person/day). The equivalent population has been rounded up to the next person.



KEY PLAN
NTS

REFERENCES:
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14. LSRCA LATEST MANUALS AND GUIDELINES

BENCHMARK:
BENCHMARK NO. 03120080055 LOCATED APPROXIMATELY 1.9km EAST OF YONGE STREET, APPROXIMATELY 6m NORTH OF CENTERLINE OF MAPLEVIEW DRIVE EAST AND 35m WEST OF CITY BOUNDARY LINE. N4912122.851 E611241.154 ELEV 223.039
BENCHMARK NO. 03120110020 LOCATED ON MAPLEVIEW DRIVE EAST ON THE SOUTH SIDE OF THE BOULEVARD, APPROXIMATELY 790m WEST OF THE MAPLEVIEW DRIVE EAST AND 20TH SIDE ROAD INTERSECTION. N4912284.547 E611717.298 ELEV 225.549
BENCHMARK NO. 03120080008. LOCATED ON THE NORTH SIDE OF MAPLEVIEW DRIVE EAST (12TH CONCESSION ROAD), APROXIMATELY 0.8km EAST OF YONGE STREET (HWY #11) AND APPROXIMATELY 10.0m NORTH OF MAPLEVIEW DRIVE EAST CENTERLINE. N4911763.816 E610187.698 ELEV 211.834
BENCHMARK NO: 03120080054 LOCATED ON THE SOUTH LIMIT OF MAPLEVIEW DRIVE WEST APPROXIMATELY 1km EAST OF HURONIA ROAD. N4910878.122 E607601.062 ELEV 248.996

NO.	REVISIONS	DATE	INITIAL
1.	FIRST DETAILED SUBMISSION	JUNE 2024	MF

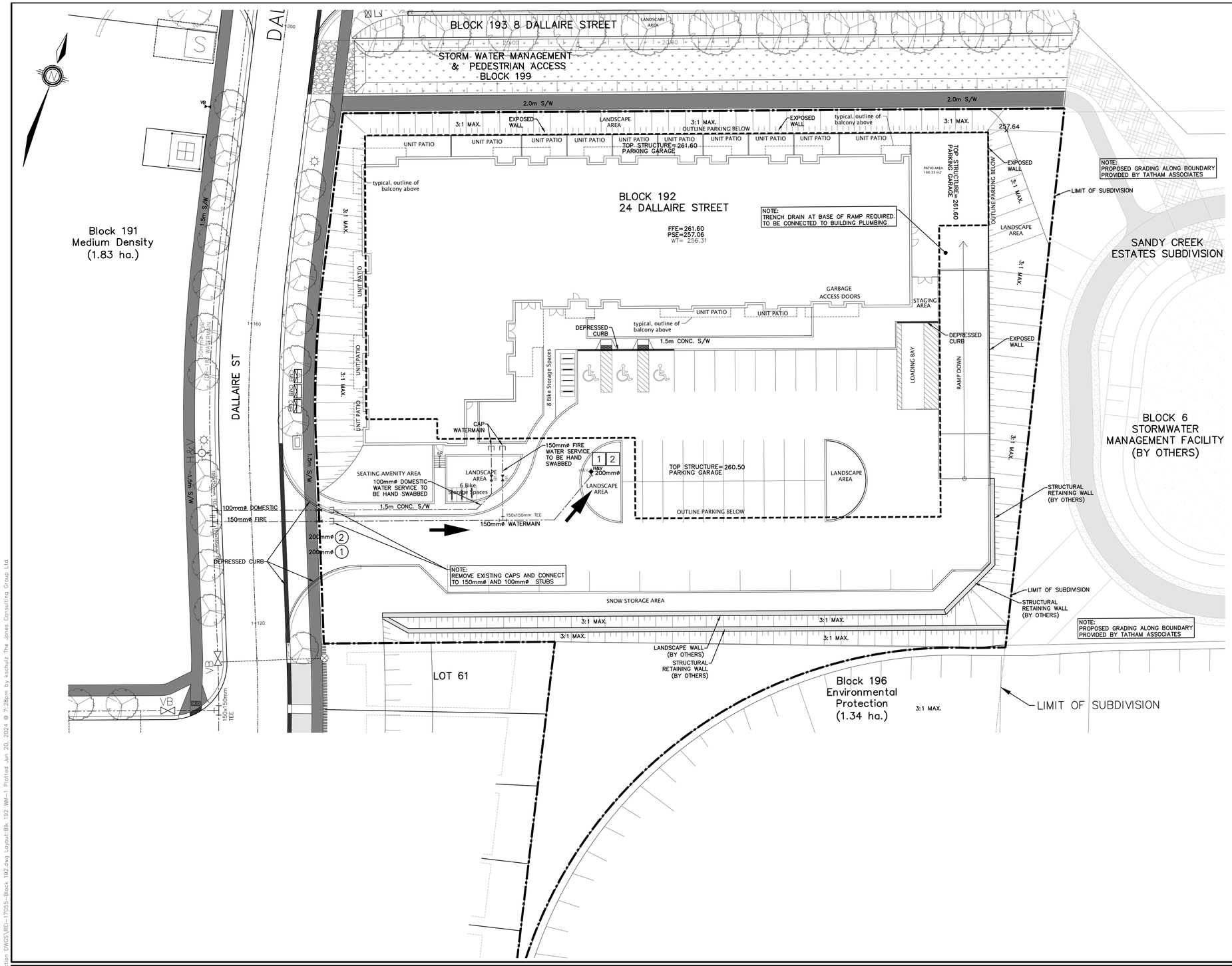
LICENSED PROFESSIONAL ENGINEER
M. G. FLIS
100149153
06-21-2024
PROVINCE OF ONTARIO

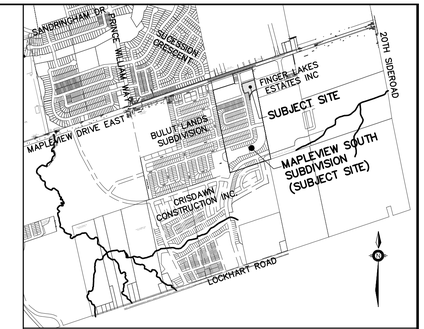
MAPLEVIEW SOUTH (INNISFIL) LTD
953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

BLOCK 192
STORM AND SANITARY
DESIGN SHEETS

JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056

DESIGN KR	SCALE: N/A	DATE MAY 2024	
DRAWN KR	PROJECT REI-17055	DWG. № DS-1	
CHECKED MF			





KEY PLAN
NTS

LEGEND

H&V	PROPOSED HYDRANT
VB	PROPOSED VALVE BOX
	PROPOSED CURB STOP
1 200mmø	SWAB NUMBER, INSERTION LOCATION & SIZE
1 200mmø	SWAB NUMBER, REMOVAL LOCATION & SIZE
	SWAB TRAVEL DIRECTION

WATERMAIN TESTING AND DISINFECTION NOTES

1. THE FOLLOWING SEQUENCE WILL BE UTILIZED IN THE COMMISSIONING OF THE WATER SYSTEM: SWAB AND CHARGE THE WATERMAIN, PRESSURE TEST, CHLORINATE, FLUSHING AND SAMPLING.
2. ALL PROCEDURES ARE TO BE COMPLETED THROUGH A BYPASS CONNECTION TO THE EXISTING WATERMAIN, c/w BACKFLOW PREVENTION VALVE.
3. THE VALVES ARE TO BE OPERATED BY CITY REPRESENTATIVES ONLY.
4. THE FINAL CONNECTION TO THE EXISTING SYSTEM WILL NOT BE PERMITTED UNTIL ALL COMPONENTS OF THE TESTING AND DISINFECTION PROCEDURE HAVE BEEN COMPLETED TO THE SATISFACTION OF THE CITY.
5. HYDROSTATIC TESTING SHALL BE PERFORMED ON THE COMPLETED DISTRIBUTION SYSTEM IN SECTIONS NOT EXCEEDING 500 METRES IN LENGTH IN ACCORDANCE WITH AWWA C600. FOR POLYETHYLENE PIPE THE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 701. TESTING OF SECTIONS THAT CONSIST OF VARYING PIPE MATERIALS WILL NOT BE PERMITTED. ALL SECONDARY MAIN VALVES MUST BE OPEN DURING TESTING WITH THE EXCEPTION OF THOSE BEING USED TO DIVIDE THE SYSTEM INTO SECTIONS FOR THE PURPOSE OF TESTING.
6. THE SYSTEM SHALL BE DISINFECTED USING THE "CONTINUOUS FEED" METHOD IN ACCORDANCE WITH AWWA C651. FOLLOWING THE REQUIRED 24 HOUR CONTACT TIME, THE SYSTEM IS TO BE FLUSHED. THE CHLORINATED WATER MUST BE NEUTRALIZED USING AN APPROPRIATE CHEMICAL SUCH AS SODIUM THIOSULPHATE. THE DISCHARGED WATER WILL DRAIN TO THE ON-SITE STORM SEWER.
7. SAMPLES FOR BACTERIOLOGICAL TESTING SHALL BE COLLECTED BY THE CITY A MINIMUM OF 24 HOURS AFTER FLUSHING IS COMPLETED IN ACCORDANCE WITH AWWA C651. SAMPLES SHALL BE COLLECTED FROM EVERY 350 METRES OF NEW WATERMAIN PLUS ONE SAMPLE FROM THE END OF EACH OF THE LINES AND AT LEAST ONE SAMPLE FROM EACH BRANCH (OPSS 441.07.25). FOLLOWING THE RECEIPT OF TWO CONSECUTIVE SETS OF ACCEPTABLE TEST RESULTS THE CITY WILL PROVIDE WRITTEN NOTIFICATION THAT A FINAL CONNECTION CAN BE MADE TO THE EXISTING DISTRIBUTION SYSTEM.
8. A CONTINUITY TEST OF THE TRACER WIRE SHALL BE COMPLETED WITH POINT TO POINT READINGS RECORDED AND APPROVED BY THE CITY.
9. THE FINAL CONNECTION SHALL NOT BE MADE UNTIL ALL OF THE ABOVE TESTING REQUIREMENTS HAVE BEEN SATISFACTORILY COMPLETED AND THE CITY HAS PROVIDED WRITTEN NOTIFICATION TO PROCEED. THE LENGTH OF PIPE REQUIRED TO CONNECT THE NEW WATER SYSTEM TO THE EXISTING DISTRIBUTION SYSTEM SHALL NOT EXCEED 5.5 METRES AND SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651.

NOTE

1. DOMESTIC AND FIRE SERVICE VALVES SHALL BE LOCATED IN THE BOULEVARD, UNLESS OTHERWISE NOTED.
2. DOMESTIC AND FIRE SERVICES SHALL BE MECHANICALLY RESTRAINED FROM THE TEE TO THE BUILDINGS.
3. DOMESTIC AND FIRE SERVICE RISERS ENTERING EACH BUILDING SHALL BE INSTALLED AS PER BSD-505.
4. DOMESTIC AND FIRE SERVICE TO BE HAND SWABBED OR A SWAB IS TO BE PLACED IN SERVICE AND REMOVED FROM RISERS.
5. THE 100mm DOMESTIC WATER SERVICE WILL REQUIRE A 100mm WATER METER (SUPPLIED AND INSTALLED BY THE OWNER) COMPLETE WITH A BYPASS ASSEMBLY AS PER BSD-533 AND SHALL BE LOCATED IN AN APPROPRIATELY SIZED MECHANICAL ROOM.
6. BACKFLOW PREVENTION SHALL BE PROVIDED ON ALL DOMESTIC AND FIRE SERVICES AS PER CITY OF BARRIE BYLAW 2017-121.

REFERENCES:
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NO.	REVISIONS	DATE	INITIAL
2.	FIRST SUBMISSION	JUNE 2024	MF
1.	ISSUED FOR PRE-CONSULTATION	JULY 2023	DR

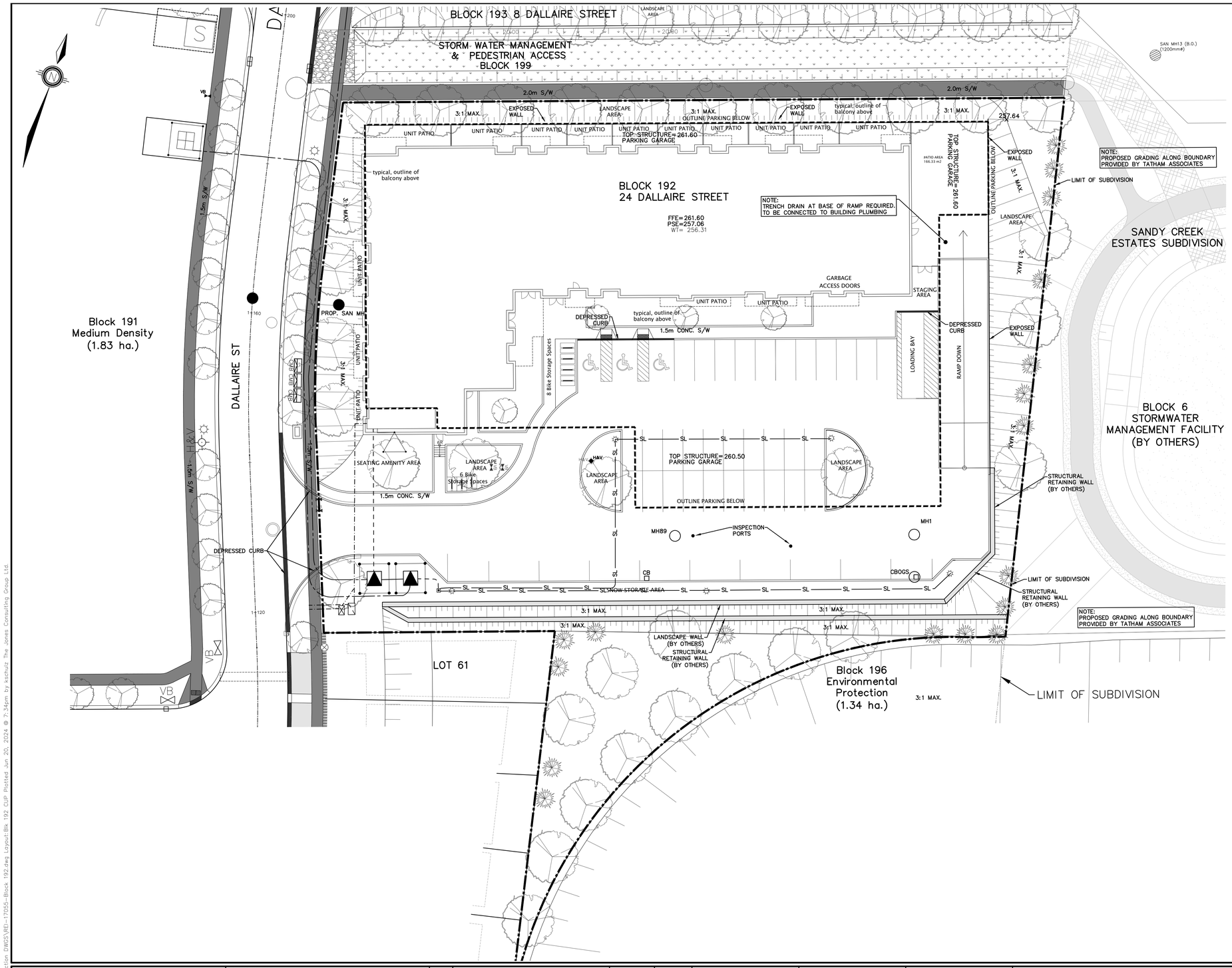
LICENSED PROFESSIONAL ENGINEER M. G. RUIS 100149153 06-21-2024 PROVINCE OF ONTARIO

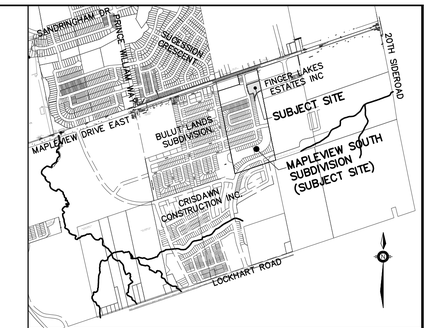
MAPLEVIEW SOUTH (INNISFIL) LTD
953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

BLOCK 192
WATER
SWABBING PLAN

JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056

DESIGN JJH	SCALE: 1:250		DATE MAY 2023
DRAWN JJH	PROJECT REI-17055		DWG. № WM-1
CHECKED RC/DR			





KEY PLAN
NTS

LEGEND

- SITE PLAN BOUNDARY
- EXISTING CONTOUR
- EXISTING VEGETATION
- SLOPE (3:1 MAX.)
- HYDRANT AND VALVE
- VALVE AND BOX
- BELL PEDESTAL, BELL VAULT
- CABLE VAULT
- SANITARY MAINTENANCE HOLE
- SANITARY SEWER AND DIRECTION OF FLOW
- STORM SEWER AND DIRECTION OF FLOW
- STORM MAINTENANCE HOLE
- CATCH BASIN
- DOUBLE CATCH BASIN
- DOUBLE CATCHBASIN MANHOLE
- CATCHBASIN MANHOLE
- DROPPED CURB
- SIDEWALK TACTILE PLATES
- LIGHT STANDARD
- TRANSFORMER
- LIGHT STANDARD PEDESTAL
- UNDERGROUND STREET LIGHT CABLE(S)
- UNDERGROUND SECONDARY SERVICE CONDUCTOR
- UNDERGROUND PRIMARY FEEDER
- UNDERGROUND COMMUNICATION DUCT
- PROPOSED DECIDUOUS TREE
- PROPOSED CONIFEROUS TREE

REFERENCES:

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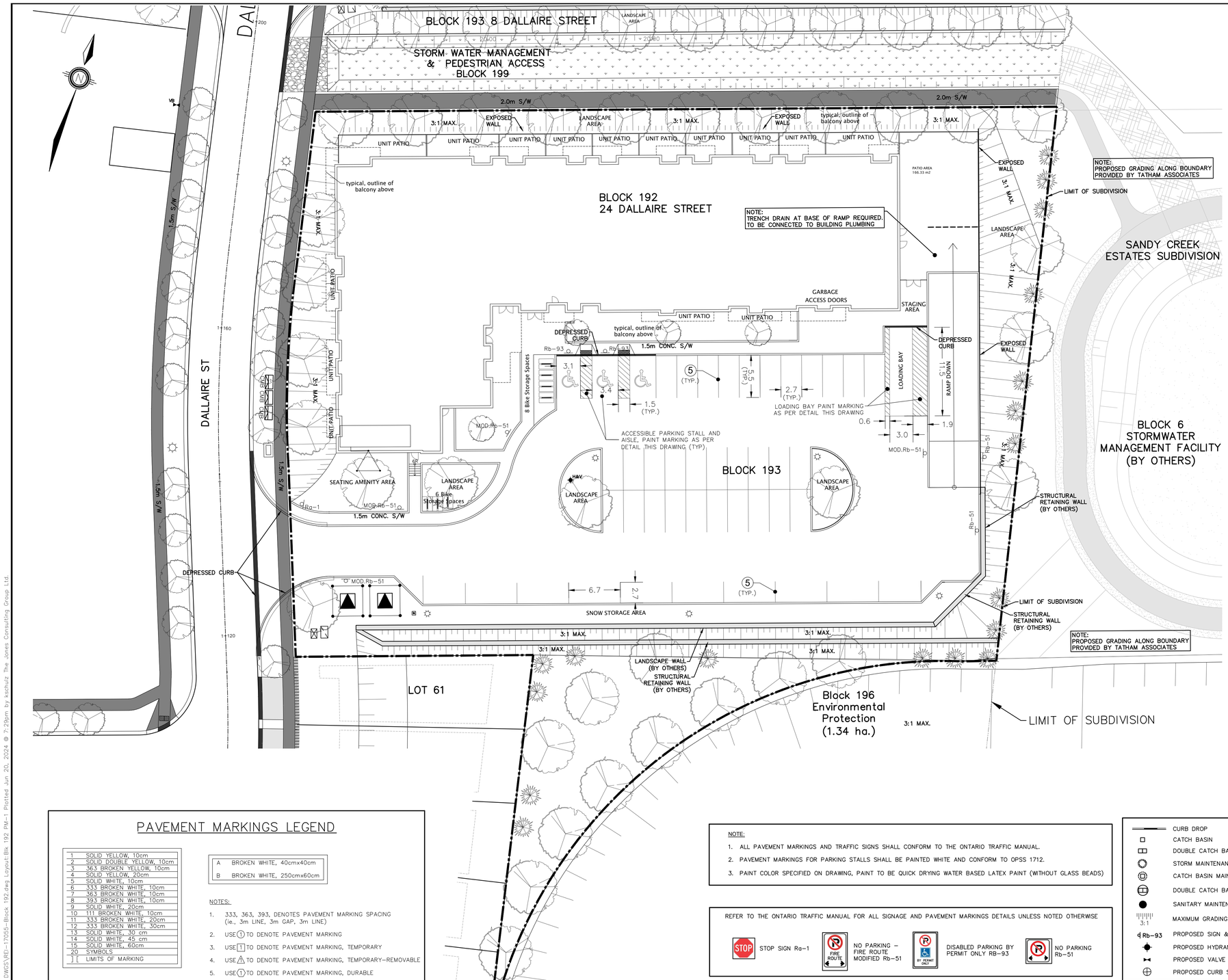
LICENSED PROFESSIONAL ENGINEER
M. G. FUJS
100149153
06-21-2024
PROVINCE OF ONTARIO

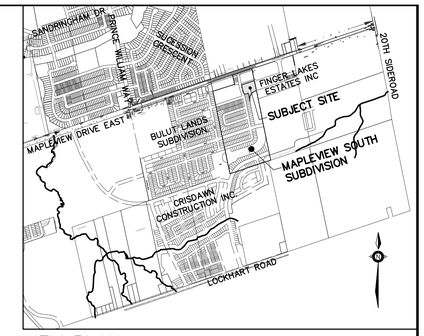
MAPLEVIEW SOUTH (INNISFIL) LTD
953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

BLOCK 192
COMPOSITE UTILITY PLAN

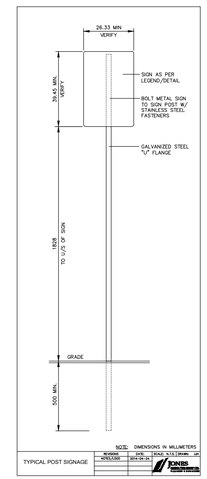
JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056

DESIGN JJH	SCALE: 1:250	DATE MAY 2023	
DRAWN JJH	PROJECT REI-17055	DWG. Nº CUP-1	
CHECKED RC/DR			

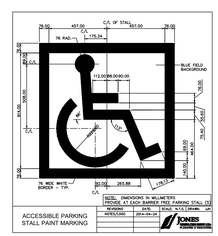




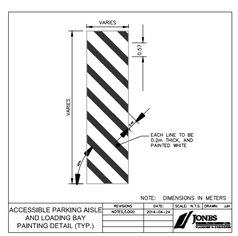
KEY PLAN
NTS



TYPICAL POST SIGNAGE



ACCESSIBLE PARKING STALL PAINT MARKING



ACCESSIBLE PARKING AISLE AND LOADING BAY PAINTING DETAIL (TYP.)

PAVEMENT MARKINGS LEGEND

1	SOLID YELLOW, 10cm
2	SOLID DOUBLE YELLOW, 10cm
3	363 BROKEN YELLOW, 10cm
4	SOLID YELLOW, 20cm
5	SOLID WHITE, 10cm
6	333 BROKEN WHITE, 10cm
7	363 BROKEN WHITE, 10cm
8	393 BROKEN WHITE, 10cm
9	SOLID WHITE, 20cm
10	111 BROKEN WHITE, 10cm
11	333 BROKEN WHITE, 20cm
12	333 BROKEN WHITE, 30cm
13	SOLID WHITE, 30 cm
14	SOLID WHITE, 45 cm
15	SOLID WHITE, 60cm
20	SYMBOLS
] [	LIMITS OF MARKING

A	BROKEN WHITE, 40cmx40cm
B	BROKEN WHITE, 250cmx60cm

NOTES:

1. 333, 363, 393, DENOTES PAVEMENT MARKING SPACING (ie., 3m LINE, 3m GAP, 3m LINE)
2. USE (1) TO DENOTE PAVEMENT MARKING
3. USE [1] TO DENOTE PAVEMENT MARKING, TEMPORARY
4. USE (1) TO DENOTE PAVEMENT MARKING, TEMPORARY-REMOVABLE
5. USE (1) TO DENOTE PAVEMENT MARKING, DURABLE

NOTE:

1. ALL PAVEMENT MARKINGS AND TRAFFIC SIGNS SHALL CONFORM TO THE ONTARIO TRAFFIC MANUAL.
2. PAVEMENT MARKINGS FOR PARKING STALLS SHALL BE PAINTED WHITE AND CONFORM TO OPSS 1712.
3. PAINT COLOR SPECIFIED ON DRAWING, PAINT TO BE QUICK DRYING WATER BASED LATEX PAINT (WITHOUT GLASS BEADS)

REFER TO THE ONTARIO TRAFFIC MANUAL FOR ALL SIGNAGE AND PAVEMENT MARKINGS DETAILS UNLESS NOTED OTHERWISE

- STOP SIGN Ra-1
- NO PARKING – FIRE ROUTE MODIFIED Rb-51
- DISABLED PARKING BY PERMIT ONLY RB-93
- NO PARKING Rb-51

LEGEND

- CURB DROP
- CATCH BASIN
- DOUBLE CATCH BASIN
- STORM MAINTENANCE HOLE
- CATCH BASIN MAINTENANCE HOLE
- DOUBLE CATCH BASIN MAINTENANCE HOLE
- SANITARY MAINTENANCE HOLE
- 3:1 MAXIMUM GRADING SLOPE UNLESS OTHERWISE NOTED
- Rb-93 PROPOSED SIGN & DESIGNATION
- PROPOSED HYDRANT
- PROPOSED VALVE
- PROPOSED CURB STOP
- PROPOSED LIGHT STANDARD
- PROPOSED PULLBOX/HANDHOLE
- PROPOSED BELL GRADE LEVEL BOX
- PROPOSED ROGERS GRADE LEVEL BOX
- PROPOSED HYDRO TRANSFORMER
- PROPOSED DECIDUOUS TREE
- PROPOSED CONIFEROUS TREE

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1. CITY OF BARRIE LATEST MANUALS AND GUIDELINES
2. OPSD. AND OPSS
3. CRYSTAL HOMES SUBDIVISION DEVELOPMENT BY TATHAM ENGINEERING LIMITED
4. SANDY COVE CREEK REALIGNMENT BY TATHAM ENGINEERING LIMITED
5. BULUT LANDS SUBDIVISION DEVELOPMENT BY SCHAEFFERS CONSULTING ENGINEERING
6. DRAFT PLAN OF MAPLEVIEW SOUTH SUBDIVISION BY JONES CONSULTING GROUP LTD.
7. MAPLEVIEW DRIVE EAST WIDENING BY R.J. BURNSIDE & ASSOCIATES LIMITED
8. OLS PLAN BY RUDY MAK SURVEYING LTD.
9. AWAN GROUP RESIDENTIAL DEVELOPMENT BY PEARSON ENGINEERING LTD.
10. HEWITT'S CENTRAL SUBDIVISION (BRADLEY HOMES) BY JONES CONSULTING GROUP LTD.
11. GEOTECHNICAL INVESTIGATION REPORT BY CAMBIUM INC.
12. HYDROGEOLOGICAL ASSESSMENT BY R.J. BURNSIDE & ASSOCIATES LIMITED
13. HEWITT'S SECONDARY PLAN AREA SIS BY R.J. BURNSIDE & ASSOCIATES LIMITED
14. LSRCA LATEST MANUALS AND GUIDELINES

BENCHMARK:

BENCHMARK NO. 03120080055 LOCATED APPROXIMATELY 1.9km EAST OF YONGE STREET, APPROXIMATELY 6m NORTH OF CENTERLINE OF MAPLEVIEW DRIVE EAST AND 35m WEST OF CITY BOUNDARY LINE. N4912122.851 E611241.154 ELEV 223.039
BENCHMARK NO. 03120110020 LOCATED ON MAPLEVIEW DRIVE EAST ON THE SOUTH SIDE OF THE BOULEVARD, APPROXIMATELY 790m WEST OF THE MAPLEVIEW DRIVE EAST AND 20TH SIDE ROAD INTERSECTION. N4912264.547 E611717.298 ELEV 225.549
BENCHMARK NO. 03120080008, LOCATED ON THE NORTH SIDE OF MAPLEVIEW DRIVE EAST (12TH CONCESSION ROAD), APPROXIMATELY 0.8km EAST OF YONGE STREET (HWY #11) AND APPROXIMATELY 10.0m NORTH OF MAPLEVIEW DRIVE EAST CENTERLINE. N4911763.816 E610187.698 ELEV 211.834
BENCHMARK NO. 03120080054 LOCATED ON THE SOUTH LIMIT OF MAPLEVIEW DRIVE WEST APPROXIMATELY 1km EAST OF HURONIA ROAD. N4910878.122 E607601.062 ELEV 248.996

NO.	REVISIONS	DATE	INITIAL
2.	FIRST SUBMISSION	JUNE 2024	MF
1.	ISSUED FOR PRE-CONSULTATION	JULY 2023	DR

LICENSED PROFESSIONAL ENGINEER M. G. FLIS 100149153 06-21-2024 PROVINCE OF ONTARIO

MAPLEVIEW SOUTH (INNISFIL) LTD
953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

BLOCK 192
PAVEMENT MARKING AND SIGNAGE PLAN

JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056

DESIGN MF/KS	SCALE: 1:250	DATE APRIL 2024	
DRAWN JT	PROJECT REI-17055	DWG. № PM-1	
CHECKED DR			

Appendix B

Supporting Calculations

- Storm Sewer Design Sheet;
- Mapleview South Subdivision Sanitary Sewer Design Sheet (revised);
- Fire Underwriters Survey Calculations.

BLK 192 STORM SEWER DESIGN - MINOR SYSTEM

Design flow in (m^3/s)	Q= C·I·A / 360	Pipe capacity (m^3/s)	Q	Client:	Anthony Reino
Site specific runoff coefficient	C	Manning roughness value	n=0.013	Project:	Mapleview South (Innisfil) LTD
Rainfall intensity (mm/hr)	I = A/(T.C. + B)^C	Cross sectional area of pipe (m^2)	A	Address:	953 Mapleview Drive East - BLK 192
function of the local intensity-duration data	A= 843.019	Hydraulic Radius (m)	R_h	File:	REI-17055
function of the local intensity-duration data	B= 4.582	Sewer pipe slope (m/m)	S	Design:	KR
function of the local intensity-duration data	C= 0.763	Velocity of flow (m/s)	V	Check:	MF
Max. time of concentration (min)	T.C.= 10			Date:	June 19 2024
Drainage area (ha)	A			Design sheet:	DS-1

AREAS	Street	MANHOLE		LENGTH	INCREMENT			TOTAL	FLOW TIME (min)		I	TOTAL Q	S	D	Q FULL	V FULL	% FULL
		FROM	TO	(m)	C	A	CA	CA	TO	IN	(mm/h)	(cms)	(%)	(mm)	(cms)	(m/s)	
201	BLK 192	STUB	MH1	2.8	0.95	0.19	0.18	0.18	10.00	0.02	109	0.055	2.40	300	0.150	2.1	***36.7***
202	BLK 192	CB1	OGS	35.7	0.77	0.13	0.10	0.10	10.00	0.35	109	0.030	2.00	250	0.084	1.7	***36.2***
203	BLK 192	OGS	MH1	5.7	0.84	0.09	0.08	0.18	10.35	0.05	107	0.053	2.10	300	0.140	2.0	***38.0***
	BLK 192	MH1	LID	2.6				0.36	10.40	0.01	107	0.107	3.50	600	1.149	4.1	***9.3***
	BLK 193	LID	MH33 (B.O)	45.2				0.36	10.41	0.24	107	0.107	3.10	450	0.502	3.2	***21.3***

STORM SEWER DESIGN - MINOR SYSTEM

Barrie

Design flow in (m³/s)	Q= C·I·A / 360	Pipe capacity (m³/s)	Q	Client:	Anthony Reino
Site specific runoff coefficient	C	Manning roughness value	n=0.013	Project:	Mapleview South (Innisfil) LTD
Rainfall intensity (mm/hr)	I = (A/(T.C. + B) ^ C	Cross sectional area of pipe (m²)	A	Address:	953 Mapleview Drive East
function of the local intensity-duration data	A= 843.019	Hydraulic Radius (m)	R_h	File:	REI-17055
function of the local intensity-duration data	B= 4.582	Sewer pipe slope (m/m)	S	Design:	VBS
function of the local intensity-duration data	C= 0.763	Velocity of flow (m/s)	V	Check:	RC
Max. time of concentration (min)	T.C.= 10			Date:	April 4, 2023
Drainage area (ha)	A			Design sheet:	DS-1

AREAS	Street	MANHOLE FROM	MANHOLE TO	LENGTH (m)	INCREMENT C	INCREMENT A	INCREMENT CA	TOTAL CA	FLOW TIME (min) TO	FLOW TIME (min) IN	I (mm/h)	TOTAL Q (cms)	S (%)	D (mm)	Q FULL (cms)	V FULL (m/s)	% FULL
201	COLOSIMO CRES	STM 01	STM 02	99.6	0.72	0.74	0.53	0.53	10.00	1.31	109	0.161	0.50	450	0.202	1.3	***79.9***
202	DALLAIRE ST	STM 02	STM 03	74.6	0.73	0.21	0.15	0.69	11.31	0.98	102	0.194	0.50	450	0.202	1.3	***96.4***
203	COLOSIMO CRES	STM 04	STM 05	51.7	0.72	0.26	0.19	0.19	10.00	0.89	109	0.057	0.50	300	0.068	1.0	***83.6***
204	COLOSIMO CRES	STM 05	STM 03	100.0	0.71	1.01	0.72	0.91	10.89	1.19	104	0.263	0.50	525	0.304	1.4	***86.5***
205	DALLAIRE ST	STM 03	STM 06	77.6	0.73	0.25	0.18	1.78	12.29	0.78	98	0.482	0.50	675	0.594	1.7	***81.1***
206	DALLAIRE ST	DCB 07	STM 06	14.6	0.77	0.26	0.20	0.20	10.00	0.13	109	0.061	2.00	300	0.137	1.9	***44.3***
		McAUSH ST	STM MH 08	84.9				1.98	13.07	0.85	94	0.518	0.50	675	0.594	1.7	***87.1***
207	McAUSH ST	STM 08	STM MH 09	84.1	0.72	0.57	0.41	2.39	13.92	0.79	91	0.604	0.50	750	0.787	1.8	***76.7***
208	McAUSH ST	STM 09	DOSC6445 (B.O.)	42.7	0.71	0.72	0.51	2.90	14.71	0.32	88	0.711	0.80	750	0.996	2.3	***71.4***
EXT.3	McAUSH ST	DDSC6445 (B.O.)	DDSC6446 (B.O.)	36.6	0.71	0.35	0.25	3.20	15.02	0.30	87	0.774	0.50	900	1.280	2.0	***60.4***
Proposed pipe by Shaeffers ↓							0.05+0.7*5.17 ↓										
SCH.2	McAUSH ST	DDSC6445 (B.O.)	DDSC6446 (B.O.)	36.5	**0.62**	**0.08**	0.05	3.67	**14.86**	0.30	88	0.893	**0.50**	**900**	1.280	2.0	***69.7***
209	DALLAIRE ST	STM 10	STM 11	80.5	0.72	0.45	0.32	0.32	10.00	1.20	109	0.097	0.50	375	0.124	1.1	***78.5***
210	DALLAIRE ST	STM 11	DDSC6447 (B.O.)	39.7	0.72	0.58	0.42	0.74	11.20	0.37	103	0.212	1.00	450	0.285	1.8	***74.2***
EXT.4	DALLAIRE ST	DDSC6447 (B.O.)	BOX CULV	36.6	0.70	0.20	0.14	0.92	11.56	0.43	101	0.257	0.50	525	0.304	1.4	***84.7***
Proposed pipe by Shaeffers ↓							0.04+0.7*1.08 ↓										
SCH.3	DALLAIRE ST	DDSC6447 (B.O.)	BOX CULV	36.0	**0.62**	**0.06**	0.04	0.79	**11.42**	0.43	102	0.224	**0.50**	**525**	0.304	1.4	***73.6***
102	Townhomes	RLCB 1	STM 12	36.5	0.67	0.18	0.12	0.12	10.00	0.71	109	0.037	0.50	250	0.042	0.9	***87.5***
	LOTUS RD	STM 12	STM 13	50.5				0.12	10.71	0.87	105	0.035	0.50	300	0.068	1.0	***51.9***
103	Townhomes	RLCB 2	STM 13	36.5	0.67	0.14	0.09	0.09	10.00	0.71	109	0.028	0.50	250	0.042	0.9	***67.6***
104	LOTUS RD	STM 13	STM 14	44.5	0.72	0.24	0.17	0.39	11.58	0.66	101	0.108	0.50	375	0.124	1.1	***87.3***
105	Townhomes	RLCB 3	STM 14	36.5	0.67	0.10	0.06	0.06	10.00	0.71	109	0.020	0.50	250	0.042	0.9	***46.8***
106	LOTUS RD	STM 14	STM 15	66.4	0.72	0.27	0.20	0.65	12.24	0.87	98	0.176	0.50	450	0.202	1.3	***87.3***
107	DALLAIRE ST	STM 15	STM 17	58.0	0.72	0.30	0.22	0.87	13.11	0.69	94	0.226	0.50	525	0.304	1.4	***74.4***
	DALLAIRE ST	STM 17	STM 18	31.5				0.87	13.80	0.37	91	0.220	0.50	525	0.304	1.4	***72.2***
101	MD Block 191	STUB	STM 18	13.6	0.75	1.83	1.37	1.37	10.00	0.13	109	0.416	0.60	600	0.476	1.7	***87.4***
Exterior catchment boundary by Pearson Engineering ↓																	
EXT.7	STM BLK 200				0.42	0.05	0.02										
Exterior catchment boundary by RJ Burnside Engineering ↓																	
EXT.7	MAPLEVIEW DR E				0.67	0.25	0.17										
109	STM Block 199	STM 18	STM 21	54.6	0.62	0.50	0.31	2.74	14.18	0.43	90	0.684	0.80	675	0.752	2.1	***91.0***
110	MD BLK 193	STUB	STM 21	10.0	0.75	0.63	0.47	0.47	10.00	1.33	109	0.143	0.50	450	0.202	1.3	***70.9***
111	MD BLK 192	STUB	STM 21	4.0	0.75	0.68	0.51	0.51	10.00	0.05	109	0.154	0.50	450	0.202	1.3	***76.2***
112	STM BLK 199	STM 21	STM 22	48.2	0.32	0.10	0.03	3.75	14.61	0.42	88	0.921	0.50	825	1.015	1.9	***90.7***
Proposed pipe by Tatham ↓																	
	External	STM 22	STM 17 (B.O.)	24.6				3.75	15.03	0.22	87	0.905	0.50	825	1.015	1.9	***89.2***
123	Townhomes	RLCB 4	CBMH 20	34.6	0.67	0.09	0.06	0.06	10.00	0.67	109	0.019	0.50	250	0.042	0.9	***44.5***
EXT.1	LOTUS RD	CBMH 20	DDSC6430 (B.O.)	2.9	0.71	0.19	0.13	0.20	10.67	0.05	105	0.057	0.50	300	0.068	1.0	***83.8***
	LOTUS RD	DDSC6430 (B.O.)	DDSC6431 (B.O.)	36.1				0.23	10.72	0.54	105	0.068	0.50	375	0.124	1.1	***54.9***
Proposed pipe by Shaeffers ↓							0.04+0.3*0.7 ↓										
SCH.1	LOTUS RD	DDSC6430 (B.O.)	DDSC6431 (B.O.)	36.0	**0.62**	**0.06**	0.04	0.25	**10.73**	0.53	105	0.072	**0.50**	**375**	0.124	1.1	***58.2***
Tatham ↓																	
EXT.6	McAUSH ST	STM 30	STM 31 (B.O.)	42.2	0.65	0.19	0.13	0.13	10.00	0.73	109	0.038	0.50	300	0.068	1.0	***55.9***
301	TERRY FOX DR	STM 23	STM 24	57.9	0.77	0.15	0.12	0.12	10.00	1.00	109	0.035	0.50	300	0.068	1.0	***51.8***
302	TERRY FOX DR	STM 24	STM 25	99.2	0.75	0.86	0.64	0.76	11.00	1.03	104	0.219	0.80	450	0.255	1.6	***85.8***
303	GIOVANNI CRES	DCB 26	STM 25	17.7	0.70	0.20	0.14	0.14	10.00	0.15	109	0.043	2.00	300	0.137	1.9	***31.1***
304	TERRY FOX DR	STM 25	STM 27	92.7	0.75	0.24	0.18	1.08	12.03	1.01	99	0.296	0.50	600	0.434	1.5	***68.3***
Proposed pipe by Tatham ↓																	
EXT.5	TERRY FOX DR	STM 27	STM 29 (B.O.)	42.5	0.75	0.21	0.16	1.24	13.03	0.46	94	0.325	0.50	600	0.434	1.5	***74.9***

Notes: Shaeffers subdivision design can be accessed under Project No. 2018-4692 | City of Barrie Files: D12-428 / D14-1625

SANITARY SEWER DESIGN - LOCAL SEWER

Development Details Basis

DESIGN SHEET 1 of 1
FILE NO REI-17055
CONTRACT / PROJECT MAPLEVIEW SOUTH (INNISFIL) LTD.

Barrie

n ≥ 0.013
M = 5/P^0.2 Babbit
M=1+[14/(4+P^0.5)] Harmon
Q_a = P*q*M/86.4
Q_i = I*A
$Q_{out} = Q_p + Q_i$
$Q_{Commercial}$

Numbers in blue or text in red are equations
(Harmon or Babbitt peaking factor where; M ≥ 2), the greater of the two is used in the spreadsheet. Please refer to Section 3.3.1.1 of the Barrie Sanitary Design Guidelines for additional guidance on which peaking factor to use.

(Peak population flow where; q = 225 L/day/person; P = population in thousands) 225 litres/person/day
(Peak extraneous flow: I= 0.1L/s/ha over development area)
(Total peak flow as the sum of peak population flow and peak extraneous flow)
See Note 1.

AREA - STREET	MAINTENANCE HOLE FROM	MAINTENANCE HOLE TO	DWELL UNITS	DWELL (ACC) UNITS	DENSITY P.P.U.	POP. (P)	POP. (ACC)	M PEAKING FACTOR BABBIT	M PEAKING FACTOR HARMON	Max PEAKING FACTOR	Q_p (l/s)	AREA (ha)	AREA (ACC) (ha)	Q_i (l/s)	Q_{out} (l/s)	L (m)	D (mm)	S (%)	Qf FULL (l/s)	d/D[3] >0.5 or >0.7	d/D[3] >0.6 (m/s)	Velocity FULL (m/s)	Velocity Partial[4] (m/s)	Velocity[4] > 0.6 (m/s)
1A - Colosimo Cres			8		3.25	26																		
1B - Colosimo Cres	SAN 01A	SAN 02A	8	16	2.57	21	47	9.234	4.321	9.234	1.120	0.49	0.49	0.049	1.169	52.2	200	2.00	46.384	0.109	Ok	1.476	0.618	Ok
2A - Colosimo Cres			10		3.25	33																		
2B - Colosimo Cres	SAN 02A	SAN 03A	16	42	2.57	41	120	7.638	4.221	7.638	2.391	0.76	1.25	0.125	2.516	108.7	200	1.10	34.399	0.183	Ok	1.095	0.628	Ok
3 - Dallaire St	SAN 03A	SAN 04A	6	48	3.25	20	140	7.412	4.201	7.412	2.696	0.32	1.57	0.157	2.853	74.6	200	1.00	32.798	0.199	Ok	1.044	0.629	Ok
4 - Colosimo Cres	SAN 05A	SAN 06A	8	8	3.25	26	26	10.375	4.364	10.375	0.702	0.39	0.39	0.039	0.741	58.5	200	2.00	46.384	0.088	Ok	1.476	0.534	Check
5 - Colosimo Cres	SAN 06A	SAN 07A	3	11	3.25	10	36	9.735	4.342	9.735	0.906	0.19	0.58	0.058	0.964	14.7	200	2.00	46.384	0.099	Ok	1.476	0.577	Check
6 - Colosimo Cres	SAN 07A	SAN 08A	18	29	3.25	59	94	8.019	4.251	8.019	1.968	0.64	1.22	0.122	2.090	80.7	200	1.20	35.929	0.163	Ok	1.144	0.610	Ok
7 - Colosimo Cres	SAN 08A	SAN 04A	13	42	3.25	42	137	7.446	4.204	7.446	2.647	0.53	1.75	0.175	2.822	76.4	200	1.00	32.798	0.198	Ok	1.044	0.627	Ok
8 - Dallaire St	SAN 04A	SAN 09A	5	95	3.25	16	282	6.394	4.083	6.394	4.869	0.33	3.65	0.365	5.234	77.6	200	0.60	25.406	0.307	Ok	0.809	0.623	Ok
9 - Dallaire St	SAN 10A	SAN 11A	2	2	3.25	7	7	13.689	4.431	13.689	0.232	0.13	0.13	0.013	0.245	18.8	200	2.00	46.384	0.052	Ok	1.476	0.379	Check
10 - Dallaire St	SAN 11A	SAN 09A	5	7	3.25	16	23	10.655	4.373	10.655	0.631	0.29	0.42	0.042	0.673	64.1	200	2.00	46.384	0.084	Ok	1.476	0.518	Check
11 - McAuslh St	SAN 09A	SAN 12A	16	118	3.25	52	367	6.109	4.040	6.109	5.842	0.77	4.84	0.484	6.326	105.8	200	0.50	23.192	0.356	Ok	0.738	0.615	Ok
12 - McAuslh St	SAN 12A	SAH 34063 (B.O.)	18	136	3.25	59	426	5.931	4.009	5.931	6.575	0.83	5.67	0.567	7.142	102.8	200	0.50	23.192	0.380	Ok	0.738	0.635	Ok
EXT - McAuslh St	SAH 34063 (B.O.)	SAH 34066 (B.O.)		136			426	5.931	4.009	5.931	6.575		5.67	0.567	7.142	40.4	200	0.50	23.192	0.380	Ok	0.738	0.635	Ok
13 - Dallaire St	SAN 10A	SAN 13A	17	17	3.25	55	55	8.923	4.306	8.923	1.284	0.79	0.79	0.079	1.363	101.2	200	1.70	42.764	0.122	Ok	1.361	0.606	Ok
14 - Dallaire St	SAN 13A	SAH 34067 (B.O.)	12	29	3.25	39	94	8.019	4.251	8.019	1.968	0.59	1.38	0.138	2.106	95.6	200	1.20	35.929	0.164	Ok	1.144	0.610	Ok
EXT - Dallaire St	SAH 34067 (B.O.)	SAH 34068 (B.O.)		29			94	8.019	4.251	8.019	1.968		1.38	0.138	2.106	40.1	250	1.20	65.143	0.123	Ok	1.327	0.594	Check
15 - MD BLK 191	STUB	SAN 14A	300	300	2.57	771	771	5.267	3.870	5.267	10.575	1.83	1.83	0.183	10.758	11.0	200	0.50	23.192	0.478	Ok	0.738	0.721	Ok
16 - Lotus Rd	SAN 14A	SAN 15A	14	314	2.57	36	807	5.219	3.858	5.219	10.968	0.42	2.25	0.225	11.193	85.4	200	0.60	25.406	0.464	Ok	0.809	0.779	Ok
17 - Lotus Rd	SAN 15A	SAN 16A	10	324	2.57	26	833	5.186	3.850	5.186	11.247	0.33	2.58	0.258	11.505	77.4	200	0.60	25.406	0.471	Ok	0.809	0.783	Ok
18 - Dallaire St	SAN 03A	SAN 16A	7	7	3.25	23	23	10.655	4.373	10.655	0.631	0.33	0.33	0.033	0.664	77.5	200	2.00	46.384	0.083	Ok	1.476	0.518	Check
19 - Dallaire St	SAN 16A	SAN 17A	2	333	3.25	7	862	5.151	3.841	5.151	11.562	0.16	3.07	0.307	11.869	58.7	200	0.50	23.192	0.506	Check	0.738	0.738	Ok
20 - MD BLK 192	STUB	SAN 17A	~~100~~ 120	~~100~~ 120	2.57	~~257~~ 309	~~257~~ 309	~~5.457~~ 6.324	~~3.905~~ 4.073	~~5.457~~ 6.324	~~9.951~~ 5.089	0.74	0.74	0.074	~~5.531~~ 5.163	11.0	200	0.90	31.115	0.270	0.285	Ok	0.990	0.729	Ok
21 - Dallaire St	SAN 17A	SAN 18A	2	~~535~~ 656	2.57	~~5~~ 6	~~1321~~ 1617	~~5.057~~ 4.840	~~3.877~~ 3.753	~~5.057~~ 4.840	~~12.508~~ 14.833	0.22	4.03	0.403	~~12.911~~ 15.236	70.3	200	0.50	23.192	0.510	0.577	Check	0.738	0.793	Ok
Landuse					Q m³/d/ha	~~Q m3/d/ha~~																		
22 - Commercial					28	~~25~~ 79*	79*	8.307	4.270	~~2.9098~~ 8.307	~~0.850~~ 1.709	~~0.85~~ 0.043	0.63		~~0.865~~ 0.799									
22 - MD BLK 193	STUB	SAN 18A	~~80~~ 100	~~80~~ 100	2.57	~~206~~ 257	~~206~~ 336	~~5.257~~ 6.219	~~3.854~~ 4.051	~~5.257~~ 6.219	~~9.875~~ 5.441	~~0.87~~ 0.63	~~0.87~~ 0.63	~~0.087~~ 0.063	~~5.344~~ 5.504	11.0	200	1.00	32.798	~~0.330~~ 0.326	Ok	1.044	~~1.685~~ 0.772	Ok
23 - Dallaire St	SAN 18A	SAH 33887 (B.O.)	4	~~516~~ 552	2.57	~~38~~ 11	~~1340~~ 1526	~~5.215~~ 4.506	~~3.841~~ 3.673	~~5.215~~ 4.506	~~15.453~~ 18.239	0.14	~~4.79~~ 4.82	~~0.479~~ 0.482	~~5.694~~ 5.988	35.5	250	0.80	53.189	~~0.429~~ 0.388	Ok	1.084	~~1.196~~ 0.981	Ok
24 - Lotus Rd	SAN 14A	SAH 34087 (B.O.)	7	7	2.57	18	18	11.168	4.386	11.168	0.523	0.21	0.21	0.021	0.544	45.8	200	4.50	69.576	0.062	Ok	2.215	0.647	Ok
EXT - Lotus Rd	SAH 34087 (B.O.)	SAH 34088 (B.O.)		7			18	11.168	4.386	11.168	0.523		0.21	0.021	0.544	39.5	250	2.00	84.100	0.057	Ok	1.713	0.474	Check
25 - Terry Fox Dr	SAN 20A	SAN 21A	13	13	3.25	42	42	9.415	4.329	9.415	1.036	0.66	0.66	0.066	1.102	80.6	200	2.00	46.384	0.106	Ok	1.476	0.603	Ok
26 - Terry Fox Dr	SAN 21A	SAN 22A	16	29	3.25	52	94	8.019	4.251	8.019	1.968	0.91	1.57	0.157	2.125	109.9	200	1.20	35.929	0.165	Ok	1.144	0.610	Ok
27 - Giovanni Cres	SAN 23A	SAN 22A	2	2	3.25	7	7	13.689	4.431	13.689	0.232	0.22	0.22	0.022	0.254	38.3	200	2.00	46.384	0.053	Ok	1.476	0.379	Check
28 - Terry Fox Dr	SAN 22A	SAN 24A	8	39	3.25	26	127	7.558	4.214	7.558	2.495	0.70	2.49	0.249	2.744	99.4	200	1.00	32.798	0.195	Ok	1.044	0.615	Ok

Date: ~~June 2023~~ June 2024 CALCULATED BY: ~~VBS~~ MG CHECKED BY: ~~RC~~ MF

(1) without extraneous flow
(2) with extraneous flow
(3) d/D>0.5 for pipes 375 and less, d/D>0.7 for pipes greater than 375
(4) Velocity check based on the lesser of full flow or partial velocity
Numbers in Blue are cell formulas

* Note: An equivalent population of 79 people was calculated for the Commercial Landuse within Block 193 by multiplying the anticipated flowrate per hectare (28 m³/d/ha) by the area (0.63 ha) and dividing it by the peak population flow converted to m³/person/day (0.225 m³/person/day). The equivalent population has been rounded up to the next person.

REFERENCES:

1. CITY OF BARRIE LATEST MANUALS AND GUIDELINES
2. OPSD AND OPSS
3. CRYSTAL HOMES SUBDIVISION DEVELOPMENT BY TATHAM ENGINEERING LIMITED
4. SANDY CLOVE CREEK REALIGNMENT BY TATHAM ENGINEERING LIMITED
5. BULUT LANDS SUBDIVISION DEVELOPMENT BY SCHAEFFERS CONSULTING ENGINEERING
6. DRAFT PLAN OF MAPLEVIEW SOUTH SUBDIVISION BY JONES CONSULTING GROUP LTD.
7. MAPLEVIEW DRIVE EAST WIDENING BY R.J. BURNSIDE & ASSOCIATES LIMITED
8. OLS PLAN BY RUDY MAK SURVEYING LTD.
9. AWAN GROUP RESIDENTIAL DEVELOPMENT BY PEARSON ENGINEERING LTD.
10. HEWITT'S GATE EAST PHASE 3 BRADLEY HOMES BY JONES CONSULTING GROUP LTD.
11. GEOTECHNICAL INVESTIGATION REPORT BY CAMBIUM INCORPORATION
12. HYDROGEOLOGICAL ASSESSMENT BY R.J. BURNSIDE & ASSOCIATES LIMITED
13. HEWITT'S SECONDARY PLAN AREA SIS BY R.J. BURNSIDE & ASSOCIATES LIMITED
14. LSRCA LATEST MANUALS AND GUIDELINES

BENCHMARK:

BENCHMARK NO. 03120080055 LOCATED APPROXIMATELY 1.9km EAST OF YONGE STREET, APPROXIMATELY 6m NORTH OF CENTERLINE OF MAPLEVIEW DRIVE EAST AND 35m WEST OF CITY BOUNDARY LINE. N4912122.851 E611241.154 ELEV 223.039
BENCHMARK NO. 03120110020 LOCATED ON MAPLEVIEW DRIVE EAST ON THE SOUTH SIDE OF THE (BOULEVARD), APPROXIMATELY 795m WEST OF THE MAPLEVIEW DRIVE EAST AND 20TH SIDE ROAD INTERSECTION. N4912264.547 E611717.298 ELEV 225.549
BENCHMARK NO. 03120080008, LOCATED ON THE NORTH SIDE OF MAPLEVIEW DRIVE EAST (12TH CONCESSION ROAD), APPROXIMATELY 0.8km EAST OF YONGE STREET (HWY #11) AND APPROXIMATELY 10.0m NORTH OF MAPLEVIEW DRIVE EAST CENTERLINE. N4911763.816 E610187.698 ELEV 211.834
BENCHMARK NO: 03120080054 LOCATED ON THE SOUTH LIMIT OF MAPLEVIEW DRIVE WEST APPROXIMATELY 1km EAST OF HURONIA ROAD. N4910878.122 E607601.062 ELEV 248.996

NO.	REVISIONS	DATE	INITIAL
3.	DETAILED DESIGN SUBMISSION	JUN 2023	RC
2.	FSR SUBMISSION – UPDATED	JUN 2022	MF
1.	FSR SUBMISSION FOR DRAFT PLAN	JUN 2021	DR

LICENSED PROFESSIONAL ENGINEER R. CHATTOPADHYAY 100126966 June 16, 2023 PROVINCE OF ONTARIO

Barrie
70 COLLIER STREET
BARRIE, ONTARIO, L4M 4T5
TEL: (705)726-4242
EMAIL: SERVICE.BARRIE@BARRIE.CA

Lake Simcoe Region conservation authority
120 BAYVIEW PARKWAY
NEWMARKET, ONTARIO, L3Y 3W3
TOLL FREE: 1-800-465-0437

MAPLEVIEW SOUTH (INNISFIL) LTD
953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

SANITARY AND STORM SEWER DESIGN SHEET

JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056

DESIGN VBS	SCALE: 1:1000	DATE FEB 2023	
DRAWN VBS	PROJECT REI-17055	DWG. № DS-1	
CHECKED RC/DR			

Project:	953 Mapleview Drive E - Block 193	Date:	May 2024	
File No.:	REI-17055 (50)	Designed:	KR	
Subject:	Building A - Fire Flow Calculations	Checked:	MF	
Revisions:				

Fire flow demands for the FUS method is based on information and guidance provided in Part 2 of the "Water Supply for Public Protection" (Fire Underwriters Survey, 1999)

An estimate of the fire flow required is given by the following formula:

$$F = 220C\sqrt{A}$$

where:

F = the required fire flow in litres per minute (Rounded to nearest 1000 L/min)

C = coefficient related to the type of construction

= 1.5 for wood frame construction (structure essentially all combustible).

= 1.0 for ordinary construction (brick or other masonry walls, combustible floor and interior)

= 0.8 for non-combustible construction (unprotected metal structural components, masonry or metal walls)

= 0.6 for fire-resistive construction (fully protected frame, floors, roof)

Note: For types of construction that do not fall within the categories given, coefficients shall not be greater than 1.5 nor less than 0.6 and may be determined by interpolation between consecutive construction types as listed above

A = Total floor area in square meters (including all storeys, but excluding basements at least 50% below grade) in the building being considered.

Adjustments to the calculated fire flow can be made based on occupancy, sprinkler protection and exposure to other structures. The table below summarizes the adjustments made to the basic fire flow demand.

			(1)		(2)		(3)		(4)		**Final Adjustment**	
Building	GFA	C	Fire Flow "F"		Occupancy Contents		Sprinkler		Exposure		**Fire Flow**	
	(m^2)		(L/min)	(L/s)	(%)	Adjusted Fire Flow (L/min)	%	Adjustment (L/min)	%	Adjustment (L/min)	**(L/min)**	**(L/s)**
Block 192	8930	1.5	31,000	517	-15	26,350	-50	-13,175	8.87	2,338	**16,000**	**267**

Note: Based on Architect drawings prepared by S & C Architects Inc., dated June 6, 2024.

(2) Occupancy Contents

Non-Combustible	-25%
Limited Combustible	-15%
Combustible	No Charge
Free Burning	15%
Rapid Burning	25%

(3) Sprinkler

30% credit for adequately designed system per NFPA 13. Additional 10% if water supply standard for both the system and fire department hose lines required. Additional credit of up to 10% given for a fully supervised system.

(4) Exposure

0 to 3m	25%	
3.1 to 10m	20%	Calculate for all sides.
10.1 to 20m	15%	Max charge shall not exceed
20.1 to 30m	10%	75%.
30.1 to 45m	5%	

Max charge percentage is outlined above. Max should only be used if exposed building meets all of the following conditions:

a) Same or poorer type of construction than fire building

b) Same or greater height than the fire building

c) Contains unprotected exposed openings

d) Unsprinklered

(each true condition accounts for 1/4 of the max charge percentage)

Calculations :

(1) Basic Required Fire Flow (F) = 517 L/s

(2) Building Occupancy Contents = -15 % Reduction

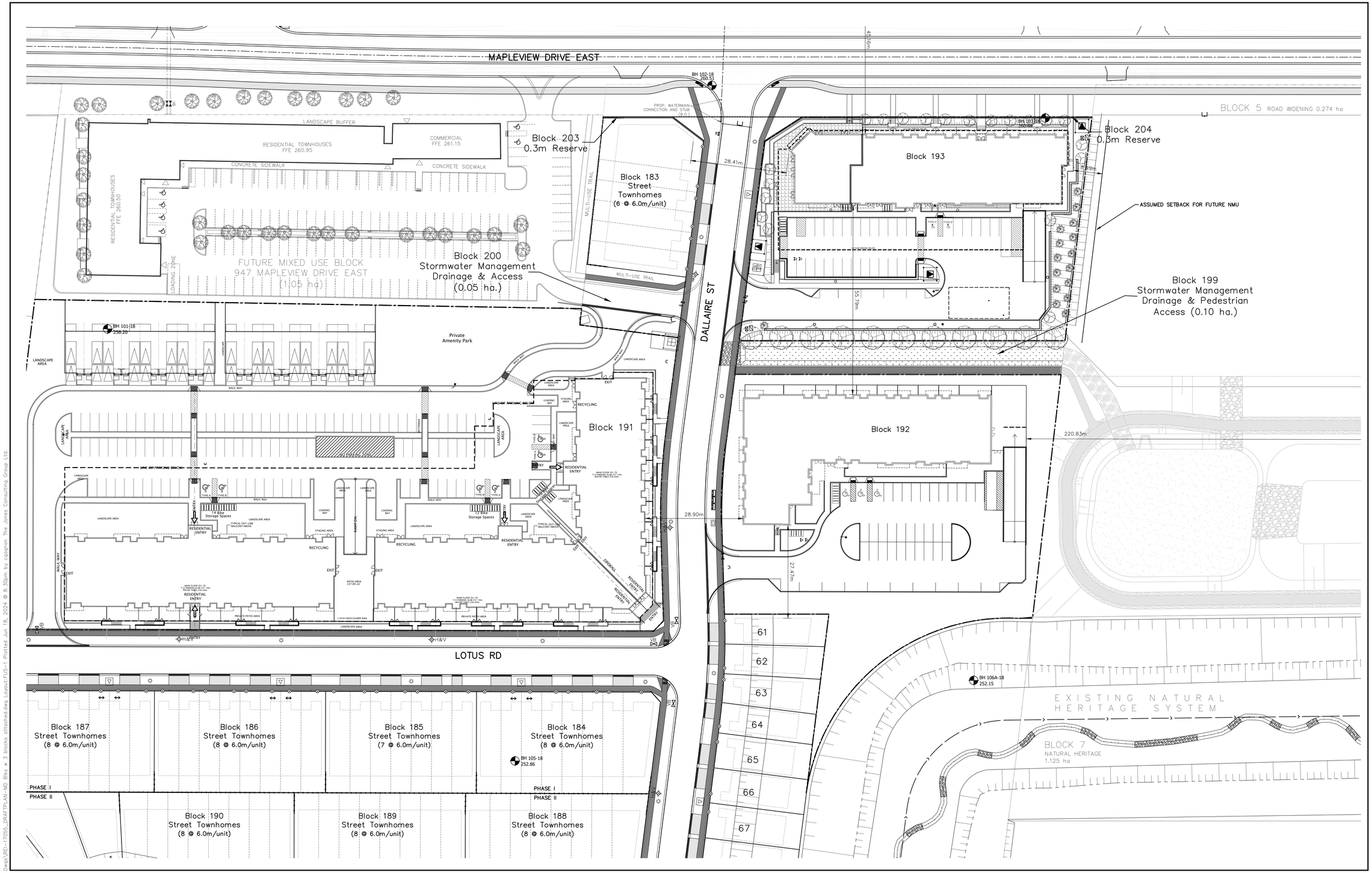
(3) Sprinkler System Credit = -50 % Reduction

(4) Exposure to building = 8.87 % Increase [See Calculation Below]

	Dist. (m)	Max Charge %	Adjusted Charge %	Notes:
North	>45	0	0.00	Exposure greater than 45m; No Charge Assigned
South	27.47	6.27	4.70	Conditions a), c) and d) are True; Assign 3/4 of Max Charge
East	>45	0	0.00	Exposure greater than 45m; No Charge Assigned
West	28.90	5.56	4.17	Conditions a), b), c) are True; Assign 3/4 of Max Charge
		Total:	8.87	

Final Adjusted Fire Flow = Adjustment Flow from (2) + Sprinkler Adjustment (3) + Exposure Adjusment (4)

= **16000 L/min** or **267 L/s**



BENCHMARK:

NO.	REVISIONS	DATE	INITIAL

MAPLEVIEW SOUTH (INNISFIL) LTD
953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

FIRE UNDERWRITER SURVEY
EXPOSURE SETBACK

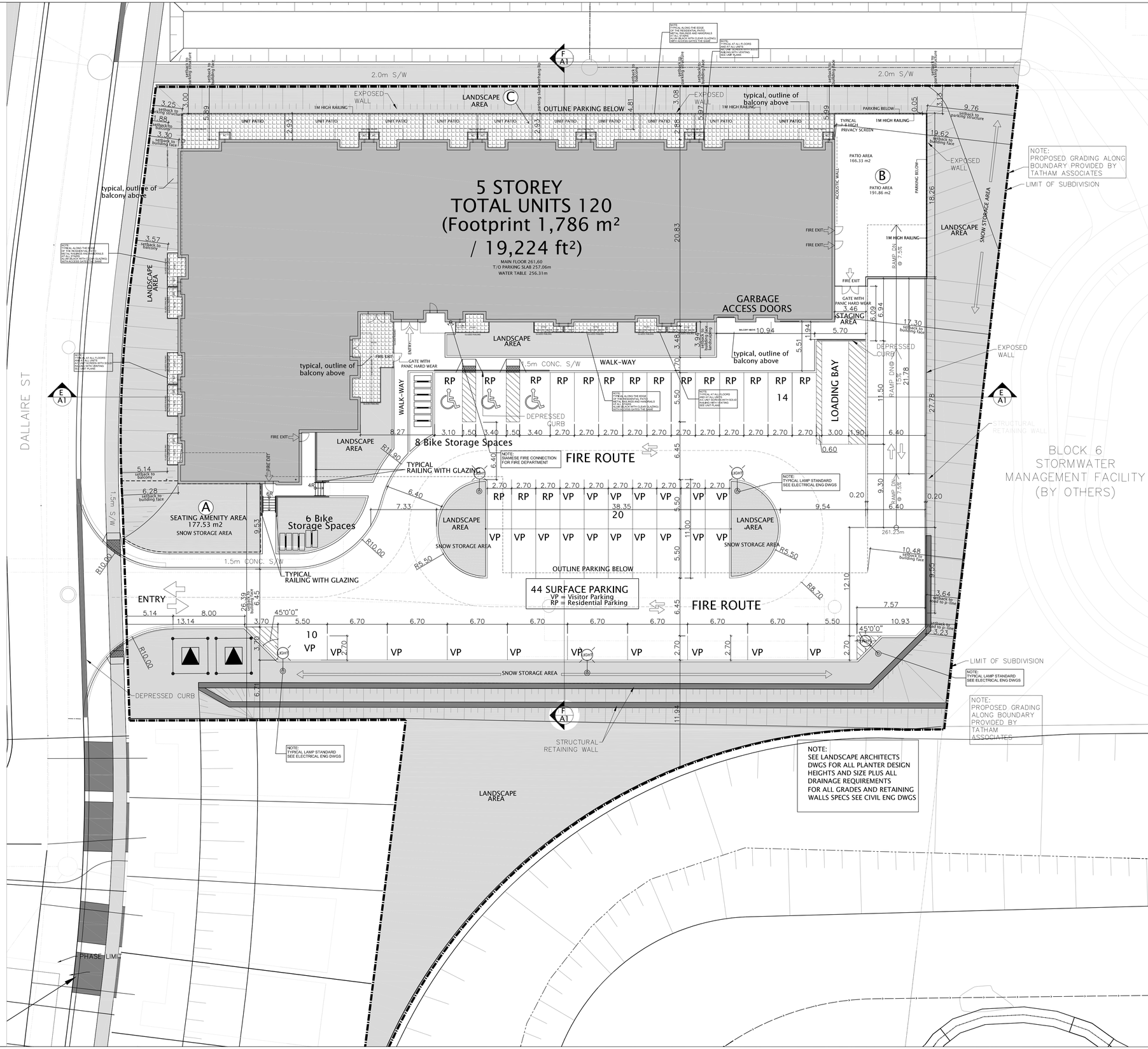
JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
229 Mapleview Dr. E, Unit 1
Barrie, ON L4N 0W5
P. 705.734.2538
F. 705.734.1056

DESIGN	SCALE: 1:500	DATE JUN 2024
DRAWN CG	PROJECT REI-17055	DWG. № FUS-1
CHECKED MF		

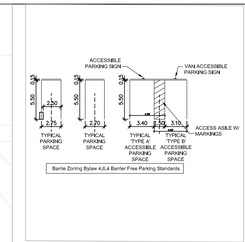
Appendix C

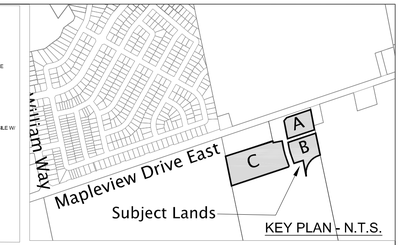
Supporting Documents

- 953 Mapleview Drive – Block 192 Site Plan, Prepared by S&C Architects, June 14, 2024;
- Mapleview South (Innisfil) Ltd. Proposed Draft Plan of Subdivision, Prepared by TJCG, December 13 2019;
- Soil Map of Simcoe County Excerpt – Report 29 South Sheet;
- By-Law Number 2022-054;
- Drawing No. PP5, Mapleview Drive East Road Widening, Plan & Profile STA. 8+640 to STA. 8+800, prepared by RJB, May 2021;
- The City of Barrie Official Plan Map 2, Land Use Designations, February 2022;
- The City of Barrie Hewitts Secondary Plan Street Widening Plan, Schedule 9D-2;
- The City of Barrie Water Map, July 2017;
- Figure No. 2-2, City of Barrie Water Distribution Overview Map, prepared by WSP, Sep 2018;
- Figure No. 12, Hewitts Secondary Plan Area Subwatershed Impact Study – Proposed Water Distribution Plan, Prepared by RJB, January 2016;
- The City of Barrie Sanitary Map, July 2017;
- Figure No. 15, Hewitts Secondary Plan Area Subwatershed Impact Study – Proposed Sanitary Sewer Plan, Prepared by RJB, September 2016.
- Drawing No. SAN-1, Mapleview South (Innisfil) Ltd. 953 Mapleview Drive East, prepared by TJCG, June 2023;
- Drawing No. SAN-2, Mapleview South (Innisfil) Ltd. 953 Mapleview Drive East, prepared by TJCG, June 2023.



NOTE:
SEE LANDSCAPE ARCHITECTS DWGS FOR ALL PLANTER DESIGN HEIGHTS AND SIZE PLUS ALL DRAINAGE REQUIREMENTS FOR ALL GRADES AND RETAINING WALLS SPECS SEE CIVIL ENG DWGS





Block 'B' Details

B BUILDING FOOT PRINT
(3.2.2.43A GROUP C)

ALLOWABLE	1,800 m2
PROPOSED	1,792 m2

Unit Count:

BLOCK 'B' Apartment Building (5 Storey)	120 units
Total	120 units

	REQUIRED	PROPOSED
Site Plan Area	-	0.74 ha.(7,363.63m2)
Lot Frontage	24.0 m	70.9 m
Front Yard	3.0 m	3.28 m
Interior Side Yard	5.0 m	5.89 m
Exterior Side Yard	1.8 m	26.39 m
Rear Yard	5.0 m	17.32 m
Lot Coverage	max 50 % (0.36 ha.)	24 % (0.18 ha.)
Accessory Structures	max 10 % (0.07 ha.)	0 % (0.00 ha.)
Landscape Open Space	min. 25 % (0.18 ha.)	48 % (0.34 ha.)
Paved Area	max 35 %	28 % (0.21 ha.)
Density Index	min 120 max 300	162.16
Floor Space Index	min 0.5 max 2.5	1.22

Building Block B

. GFA	8,930 m2
. Height In Stories	5
Units	120

Parking Calculations	Required	Provided
Required Parking (120 x 1.0)	120 spaces	120 spaces
Required Visitor Parking (120 x 0.5=60)	60 spaces	
Proposed Visitor Parking (120 x 0.2=24)		27 spaces
Total Required	180 spaces	147 spaces

Parking Breakdown	
Typical Surface Spaces	41 spaces
Surface Barrier Free Spaces	3 spaces
Underground Barrier Free Spaces	3 spaces
Typical Underground Spaces	100 spaces
Total Provided	147 spaces

Barrie Zoning Bylaw 4.6.4 Barrier Free Parking
Barrier Free spaces calculated using Accessibility Parking for Barrie Ont.
Required over 100 spaces 1 space plus 3% of the required parking spaces
3% of 147 =4.41 (5) plus 1 = 6 (6 required, provided 6)
(Type A - 3.4 x 1.5 - 3 spaces)
(Type B - 3.1 x 1.5 - 3 spaces)

Bicycle Rack Storage (.2 x 120)	24 Required	22 Secure Storage Provided 14 Surface Bike Racks Provided
Total		36 Bikes

Required Outdoor Amenity Area (10m²/unit-10x120) 1200 m²
Provided Amenity Breakdown For Condo Building

Provided Outdoor Amenity

Garden Amenity At Entry, A	177.53 m²
Patio area on east side , B	191.86 m²
Patio area over parking structure at North side, C	232.70 m²
Patio area at ground floor Units at East and South	87.00 m²
Balcony area at typical floors (157.68 X 4 floors)	630.72 m²
Total Outdoor Amenity	1319.81 m²

Provided Shared Indoor Amenity

lounge/meeting rooms Amenity Plus public Washrooms	158.52 m²
Total In door Amenity	158.52 m²

Fire Route

Unit type and area per floor — AFFORDABLE UNIT *

Unit	Area	Unit Type	Main floor	2nd floor	3rd floor	4th floor	5th floor	
A	55m	1 bed 1 bath	7	7	7	7	7	35
B *	34m	Bachelor	2	2	2	2	2	10
C *	49m	1 bed/1 bath	1	1	1	1	1	5
D	55m	1 bed/1 bath/den	1	1	1	1	1	5
E	50m	1 bed/1 bath	3	4	4	4	4	19
E+	52m	1 bed/1 bath	1	1	1	1	1	5
F	58m	1 bed/1 bath	1	1	1	1	1	5
G	63m	1 bed/1 bath/den		2	2	2	2	8
H	86m	2 bed/2 bath	2	2	2	2	2	10
I	98m	2 bed/2 bath/den		1	1	1	1	4
J	70m	2 bed/2 bath		1	1	1	1	4
K	106m	3 bed/2 bath	1	1	1	1	1	5
L	80m	2 bed/2 bath	1	1	1	1	1	5
			20	25	25	25	25	120

Total Units	120
Affordable Units *	15

No.	Description	Date	Rev.
15	ISSUED FOR PRE-CONSULTATION MEETING	JUN 14, 2024	
14	ISSUED FOR PRE-CONSULTATION MEETING	MAY 06, 2024	
13	ISSUED FOR PRE-CONSULTATION MEETING	APR 15, 2024	
12	ISSUED FOR PRE-CONSULTATION MEETING	APR 12, 2024	
11	ISSUED FOR PRE-CONSULTATION MEETING	APR 11, 2024	
12	ISSUED FOR PRE-CONSULTATION MEETING	APR 05, 2024	
11	ISSUED FOR PRE-CONSULTATION MEETING	MAR 28, 2024	
10	ISSUED FOR PRE-CONSULTATION MEETING	MAR 19, 2024	
9	ISSUED FOR PRE-CONSULTATION MEETING	FEB 28, 2024	
8	ISSUED FOR PRE-CONSULTATION MEETING	FEB 07, 2024	
7	ISSUED FOR PRE-CONSULTATION MEETING	NOV 27, 2023	
6	ISSUED FOR PRE-CONSULTATION MEETING	Nov 16, 2023	
5	ISSUED FOR PRE-CONSULTATION MEETING	OCT 24, 2023	
4	ISSUED FOR PRE-CONSULTATION MEETING	JULY 18, 2023	
3	ISSUED FOR CLIENT AND CONSULTANT REVIEW	MAY 24, 2023	
2	ISSUED FOR CLIENT AND CONSULTANT REVIEW	APR 20, 2023	
1	ISSUED FOR CLIENT AND CONSULTANT REVIEW	MARCH 30, 2023	SA

CLIENT: MAPLEVIEW SOUTH (INNISFIL) LTD.

953 MAPLEVIEW DRIVE-BLOCK-192
SITE PLAN 120 UNITS

ELEVATION: | Drawing No. A-101

TOTAL AREA:

DATE ISSUED: March 30,2023

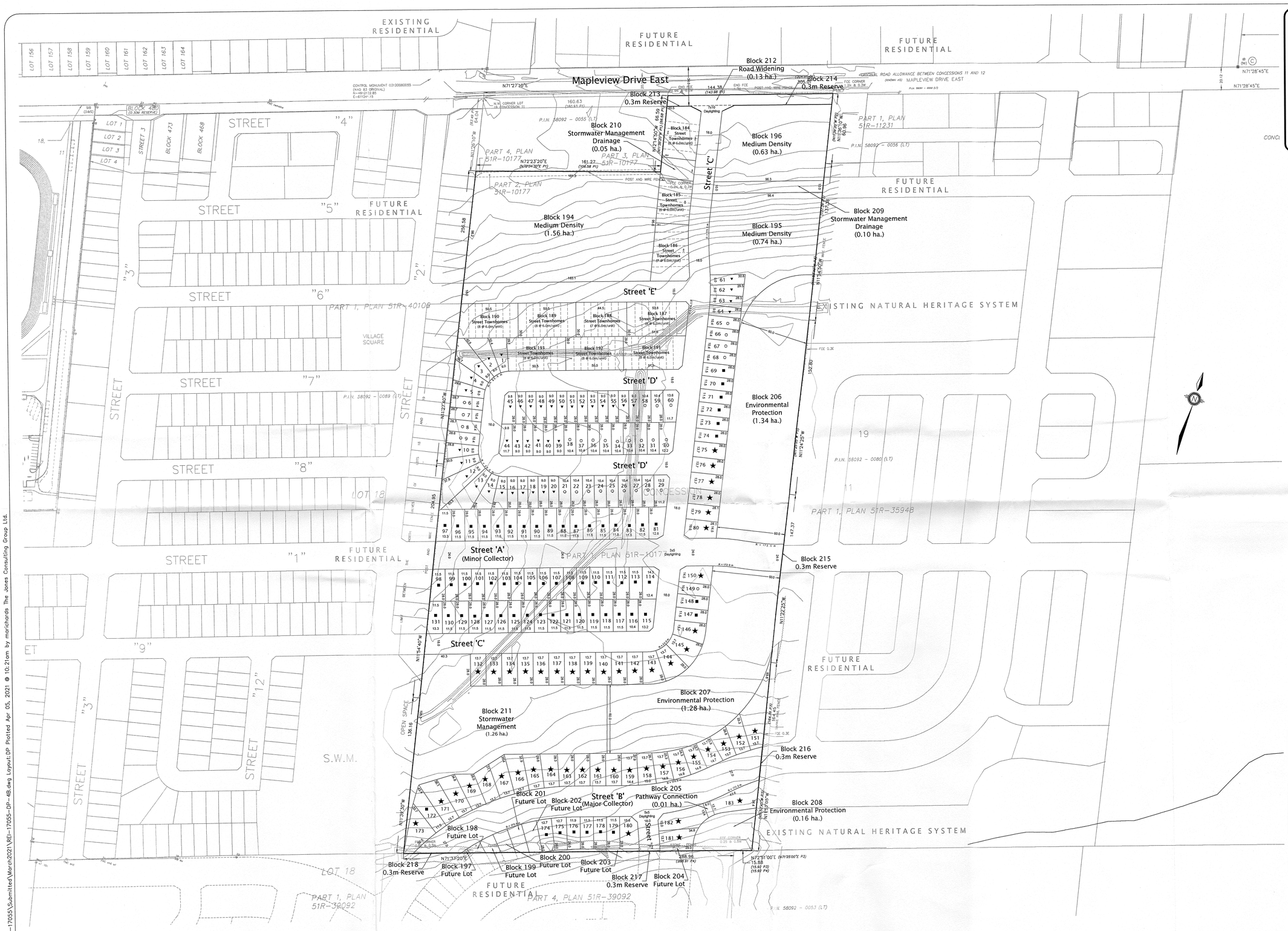
PROJECT #: 2023-05

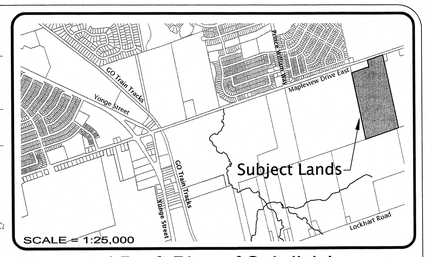
MARKETING NAME: -

SCALE: 1:200

MUNICIPALITY: City of Barrie

S&C ARCHITECTS INC.
T: (416)548-0991 F:(416)960-6107
INFO@SCARCHITECTS.CA
60 RANDALL DRIVE SUITE 10
AJAX, ONTARIO L1S 6L3





Proposed Draft Plan of Subdivision

Part of Lot 19, Concession 11
Geographic Township of Innisfil,
Now in the

City of Barrie 2021

OWNER'S CERTIFICATE

I, THE UNDERSIGNED, BEING THE REGISTERED OWNER OF THE SUBJECT LANDS, HEREBY AUTHORIZE THE JONES CONSULTING GROUP LTD., TO PREPARE THIS DRAFT PLAN OF SUBDIVISION AND TO SUBMIT SAME TO THE CITY OF BARRIE FOR APPROVAL.

April 12, 2021 — DATE

MAPLEVIEW SOUTH (INNISFIL) LTD.
ANTHONY REINO, A.S.O.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AND THEIR RELATIONSHIP TO ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

April 7, 2021 — DATE

RUDY MAK, O.L.S.

ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51(17) OF THE PLANNING ACT

a) SHOWN ON DRAFT PLAN
b) SHOWN ON DRAFT PLAN
c) SHOWN ON KEY PLAN
d) RESIDENTIAL, OPEN SPACE, STORMWATER MANAGEMENT, & ENVIRONMENTAL PROTECTION
e) SHOWN ON DRAFT PLAN
f) SHOWN ON DRAFT PLAN
g) SHOWN ON DRAFT PLAN
h) MUNICIPAL PIPED WATER TO BE PROVIDED
i) SANDY/CLAY LOAM
j) SHOWN ON DRAFT PLAN
k) ALL MUNICIPAL SERVICES TO BE PROVIDED
l) SHOWN ON DRAFT PLAN

STATISTICS	Area (ha.)	Units
★ 13.7 m Singles		48 units
■ 11.5 m Singles		66 units
○ 10.4 m Singles		30 units
▾ 9.0 m Singles (LOTS 1 - 183)		39 units
SUB TOTAL	6.34 ha.	183 units
Street Townhomes (6.0m) (BLOCKS 184 - 193)	1.45 ha.	74 units
Medium Density Residential (BLOCKS 194 - 196 @ 70 uph)	2.93 ha.	205 units
Future Lots & Blocks (BLOCKS 197 - 204)	0.14 ha.	4 units
Open Space (BLOCK 205)	0.01 ha.	
Environmental Protection (BLOCKS 206 - 208)	2.78 ha.	
Stormwater Management & Drainage (BLOCKS 209 - 211)	1.41 ha.	
Widening & Reserve (BLOCKS 212 - 218)	0.14 ha.	
Roads (MINOR COLLECTOR, STREET 'A') (MAJOR COLLECTOR, STEET 'B') (LOCAL STREETS 'C' - 'F')	3.83 ha.	
TOTAL	19.03 ha.	466 units

0 10 50 100M
SCALE 1 : 1500 (A1)

MAPLEVIEW SOUTH (INNSIFIL) LTD.
953 MAPLEVIEW DRIVE, BARRIE, ONTARIO

PROPOSED DRAFT PLAN OF SUBDIVISION

Raymond J. Dumais REGISTERED PROFESSIONAL PLANNER R.P.P.

Date Issued:	DEC. 13, 2019
Checked By:	RD
Project No.:	REI-17055
Drawn By:	m.c.r.
Drawing Name:	REI-17055-DP-4B.dwg

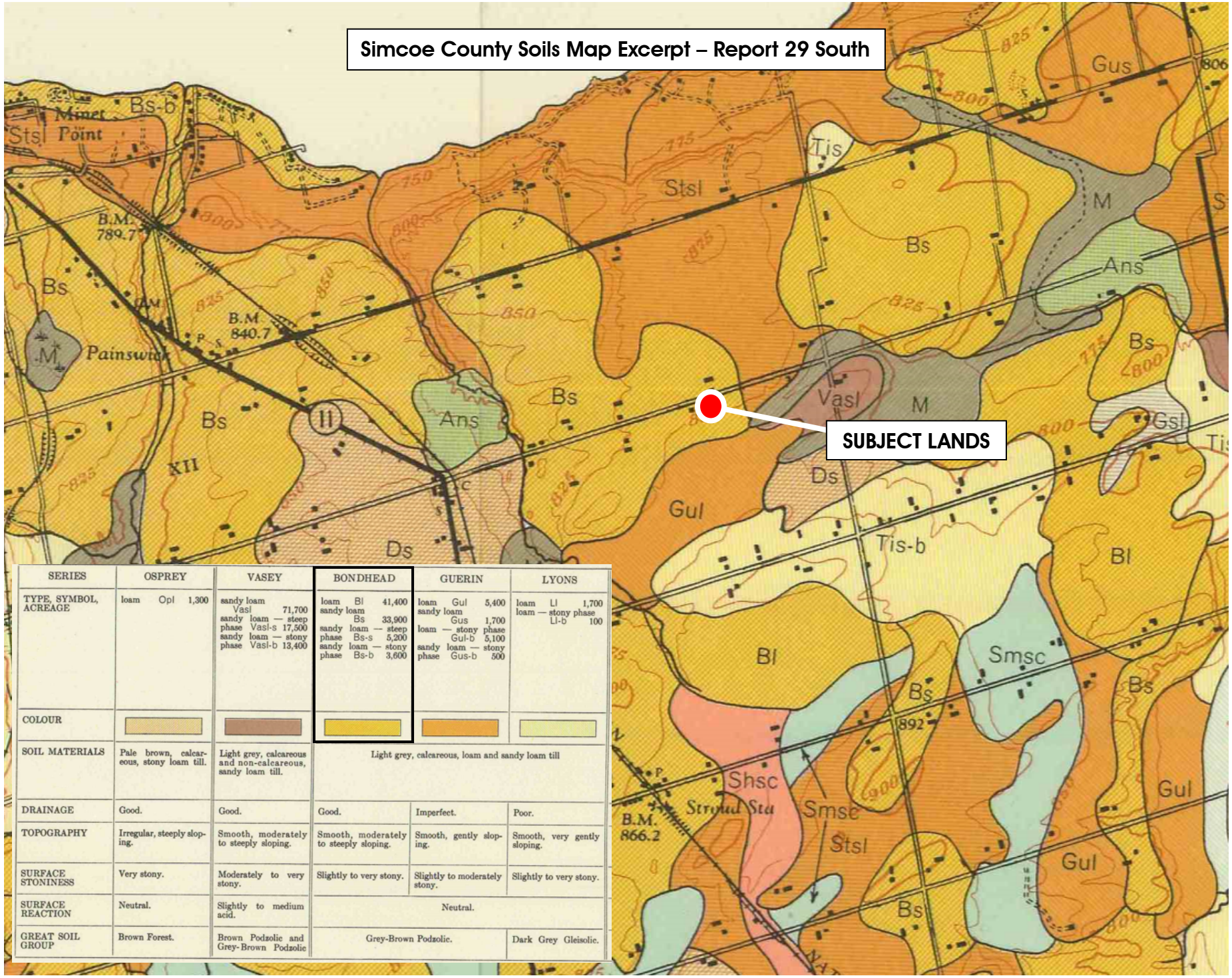
JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
220 Mapleview Drive East, Unit 1, Barrie, Ontario, L4N 0W5
Phone: 705-734-2538 Fax: 705-734-1056
www.jonesconsulting.com

SCHEDULE OF REVISIONS

DATE	DESCRIPTION	DRAWN
FEB. 25, 2021	CHANGES AS PER ENG COMMENTS/SWM POND REVISION	m.c.r.
MARCH 5, 2021	REVISION TO LOTS 172 & 173	m.c.r.
APRIL 1, 2021	MINOR CHANGES TO TITLE BLOCK ONLY	m.c.r.

MAPLEVIEW SOUTH (INNISFIL) LTD.
953 MAPLEVIEW DRIVE BARRIE, ONTARIO

Simcoe County Soils Map Excerpt – Report 29 South



SERIES	OSPREY	VASEY	BONDHEAD	GUERIN	LYONS
TYPE, SYMBOL, ACREAGE	loam Opl 1,300	sandy loam Vasl 71,700 sandy loam — steep phase Vasl-s 17,500 sandy loam — stony phase Vasl-b 13,400	loam Bl 41,400 sandy loam Bs 33,900 sandy loam — steep phase Bs-s 5,200 sandy loam — stony phase Bs-b 3,600	loam Gul 5,400 sandy loam Gus 1,700 loam — stony phase Gul-b 5,100 sandy loam — stony phase Gus-b 500	loam Ll 1,700 loam — stony phase Ll-b 100
COLOUR					
SOIL MATERIALS	Pale brown, calcareous, stony loam till.	Light grey, calcareous and non-calcareous, sandy loam till.	Light grey, calcareous, loam and sandy loam till		
DRAINAGE	Good.	Good.	Good.	Imperfect.	Poor.
TOPOGRAPHY	Irregular, steeply sloping.	Smooth, moderately to steeply sloping.	Smooth, moderately to steeply sloping.	Smooth, gently sloping.	Smooth, very gently sloping.
SURFACE STONINESS	Very stony.	Moderately to very stony.	Slightly to very stony.	Slightly to moderately stony.	Slightly to very stony.
SURFACE REACTION	Neutral.	Slightly to medium acid.	Neutral.		
GREAT SOIL GROUP	Brown Forest.	Brown Podzolic and Grey-Brown Podzolic	Grey-Brown Podzolic.		Dark Grey Gleisolic.

Bill No. 054

BY-LAW NUMBER 2022-054

A By-law of The Corporation of the City of Barrie to amend Town of Innisfil By-law 054-04, a land use control by-law to regulate the use of land, and the erection, use, bulk, height, location and spacing of buildings and structures, formerly in the Town of Innisfil, now in the City of Barrie.

WHEREAS the Council of The Corporation of the City of Barrie deems it expedient to amend Town of Innisfil By-law 054-04 to rezone lands being Part of Lot 19, Concession 11, formerly Town of Innisfil, known municipally as 953 Mapleview Drive East, shown on Schedule "A" to this By-law from Agricultural General (AG) to Neighbourhood Residential (R5), Neighbourhood Multiple Residential (RM3), Neighbourhood Multiple Residential with Special Provisions (RM3)(SP-616), Neighbourhood Mixed Use (NMU), and Environmental Protection (EP) in City of Barrie By-law 2009-141.

AND WHEREAS the Council of The Corporation of the City of Barrie adopted Motion 22-G-021.

NOW THEREFORE the Council of The Corporation of the City of Barrie enacts the following:

1. **THAT** the zoning map is amended to change from Agricultural General (AG) in Town of Innisfil By-law 054-04 to Neighbourhood Residential (R5), Neighbourhood Multiple Residential (RM3), Neighbourhood Multiple Residential with Special Provisions (RM3)(SP-616), Neighbourhood Mixed Use (NMU), and Environmental Protection (EP) in City of Barrie By-law 2009-141, in accordance with Schedule "A" attached to this By-law.

2. **THAT** notwithstanding the provisions in Section 14.5.2 of Zoning By-law 2009-141, the Neighbourhood Multiple Residential with Special Provisions (RM3)(SP-616) zone shall permit stormwater drainage, vehicular and pedestrian access, and servicing for the adjacent lands at 947 Mapleview Drive East.

3. **THAT** the remaining provisions of By-law 2009-141, as amended from time to time, applicable to the above described lands shown in Schedule "A" to this by-law shall apply to the said lands except as varied by this By-law.

4. **THAT** this By-law shall come into force and effect immediately upon the final passing thereof.

READ a first and second time this 6th day of June, 2022.

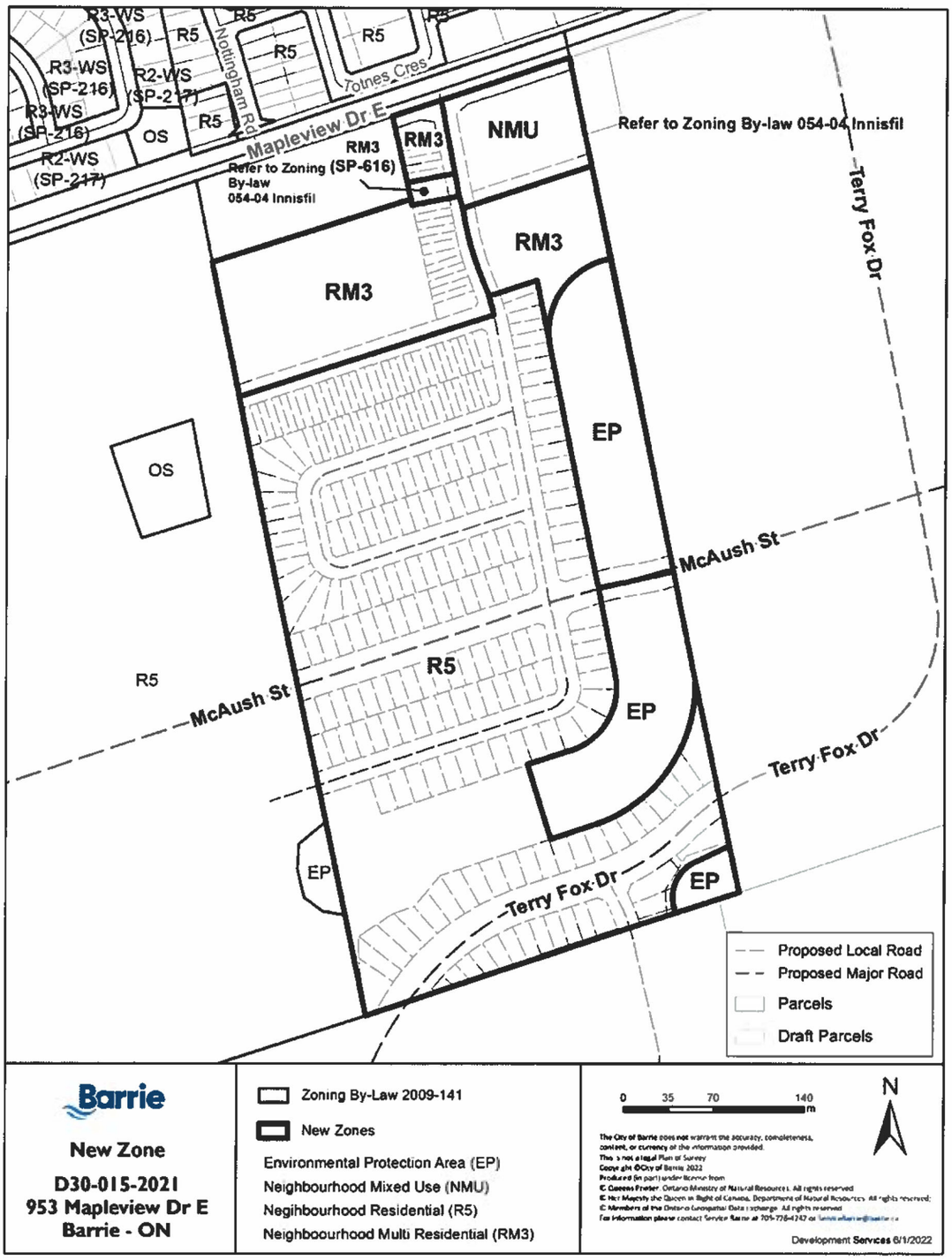
READ a third time and finally passed this 6th day of June, 2022.

THE CORPORATION OF THE CITY OF BARRIE

MAYOR – J.R. LEHMAN

DEPUTY CITY CLERK – MEGAN WILLIAMS

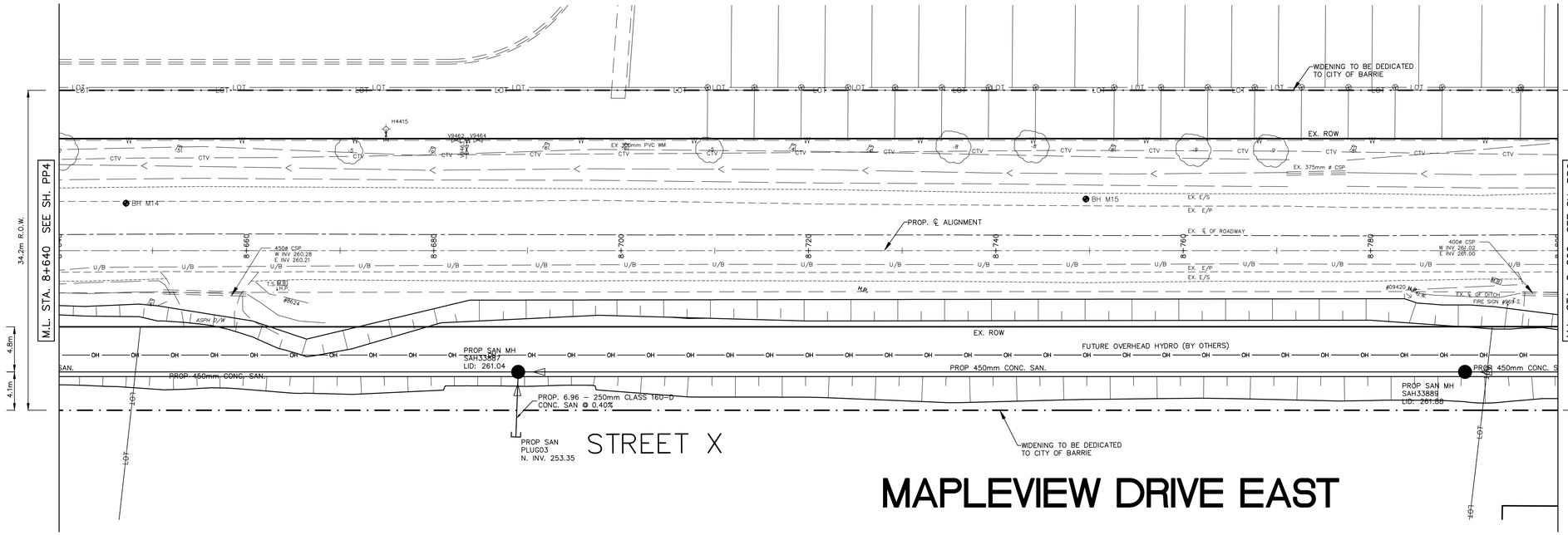
Schedule "A" to attached By-law 2022-054

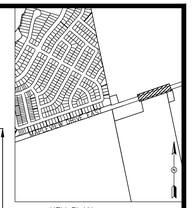


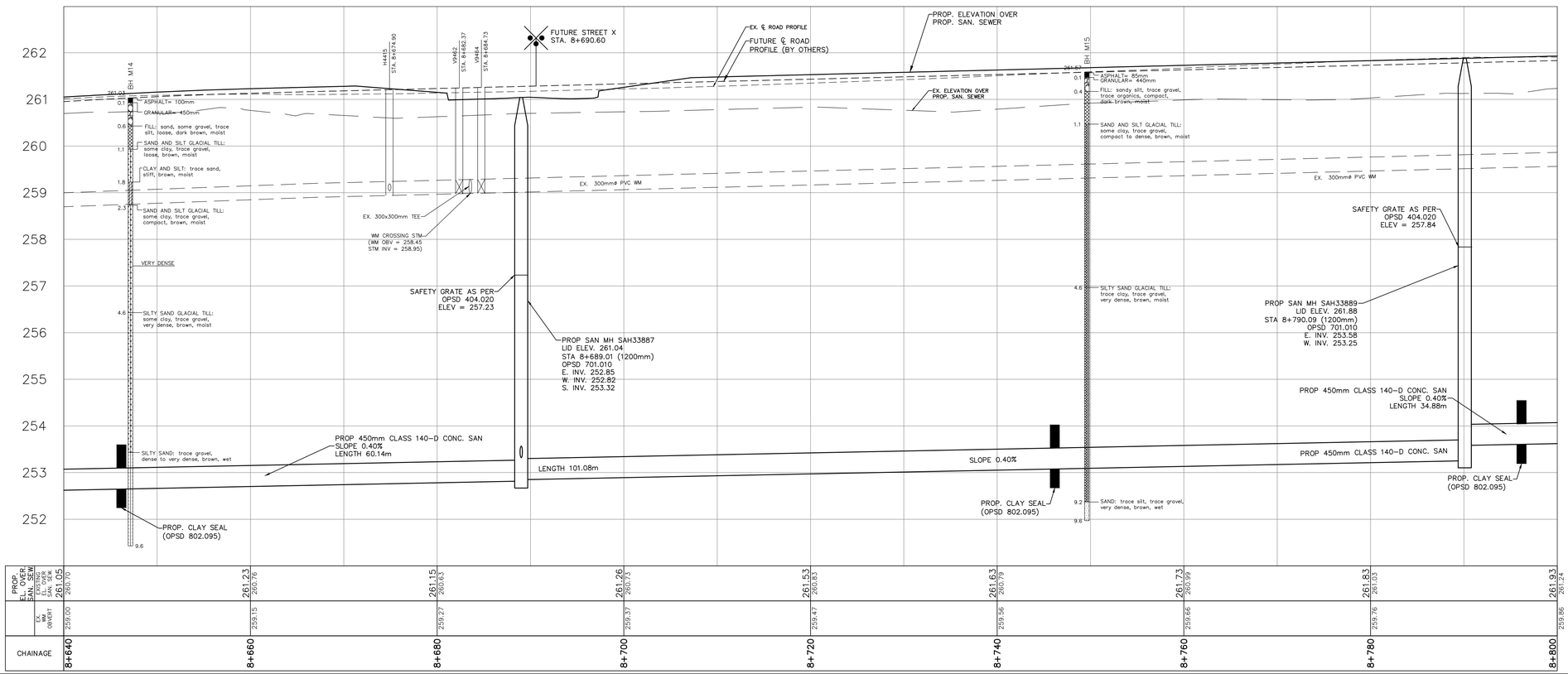
THE CORPORATION OF THE CITY OF BARRIE

MAYOR – J.R. LEHMAN

DEPUTY CITY CLERK – MEGAN WILLIAMS







CHAINAGE	8+640	8+660	8+680	8+700	8+720	8+740	8+760	8+780	8+800
PROP. ELEVATION OVER SAN. SEW.	261.05	261.23	261.15	261.26	261.53	261.63	261.73	261.83	261.93
EXISTING SAN. SEW. ELEVATION	260.70	260.76	260.83	260.73	260.83	260.79	260.99	261.03	261.24
INV. CONVERT	259.00	259.15	259.27	259.37	259.47	259.56	259.66	259.76	259.86

GENERAL NOTES

REFER TO CURRENT CITY OF BARRIE STANDARDS FOR APPLICABLE GENERAL NOTES.

BENCH MARKS

DISTANCE NOTE

DISTANCES SHOWN HEREON ARE GRID DISTANCES AND CAN BE CONVERTED TO GROUND DISTANCES BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 1.0003.

BEARING NOTE

BEARINGS HEREIN ARE GRID BEARINGS AND ARE DERIVED FROM CONTROL MONUMENTS 031910009 (N=4914801.348, E=601584.468)AND 010860410 (N=4913103.464, E=606668.620). AND ARE REFERRED TO THE CENTRAL MERIDIAN (81 DEGREES OF LONGITUDE) IN ZONE, 17 AND ARE BASED ON NAD27 (76 ADJUSTMENT).

BENCH MARK V010865470

269.751 – BRASS TABLET SET IN CONCRETE HEADWALL OF UNDERGROUND STORM SEWER ENTRANCE ON WEST SIDE OF FERNDALE DRIVE NORTH, 1.0KM NORTH OF EDGEHILL DRIVE. TABLET IS SET HORIZONTALLY IN EAST FACE OF WESTERLY WALL, 15.0m WEST OF CENTRELINE OF FERNDALE DRIVE NORTH, 44CM SOUTH OF NORTHWEST END AND 37CM BELOW TOP OF CONCRETE WALL.

NO.	REVISIONS	DATE	APPROVED
1	ISSUED FOR 30% SUBMISSION	'18/11/26	DD
2	ISSUED FOR 60% SUBMISSION	'20/02/28	DD
3	ISSUED FOR 90% SUBMISSION	'20/07/31	DD
4	ISSUED FOR 100% SUBMISSION	'21/03/26	DD
5	ISSUED FOR TENDER	'21/05/17	DP

CITY OF BARRIE
ACCEPTED
DATE. . . . . .
. . . . . .
DIRECTOR OF ENGINEERING

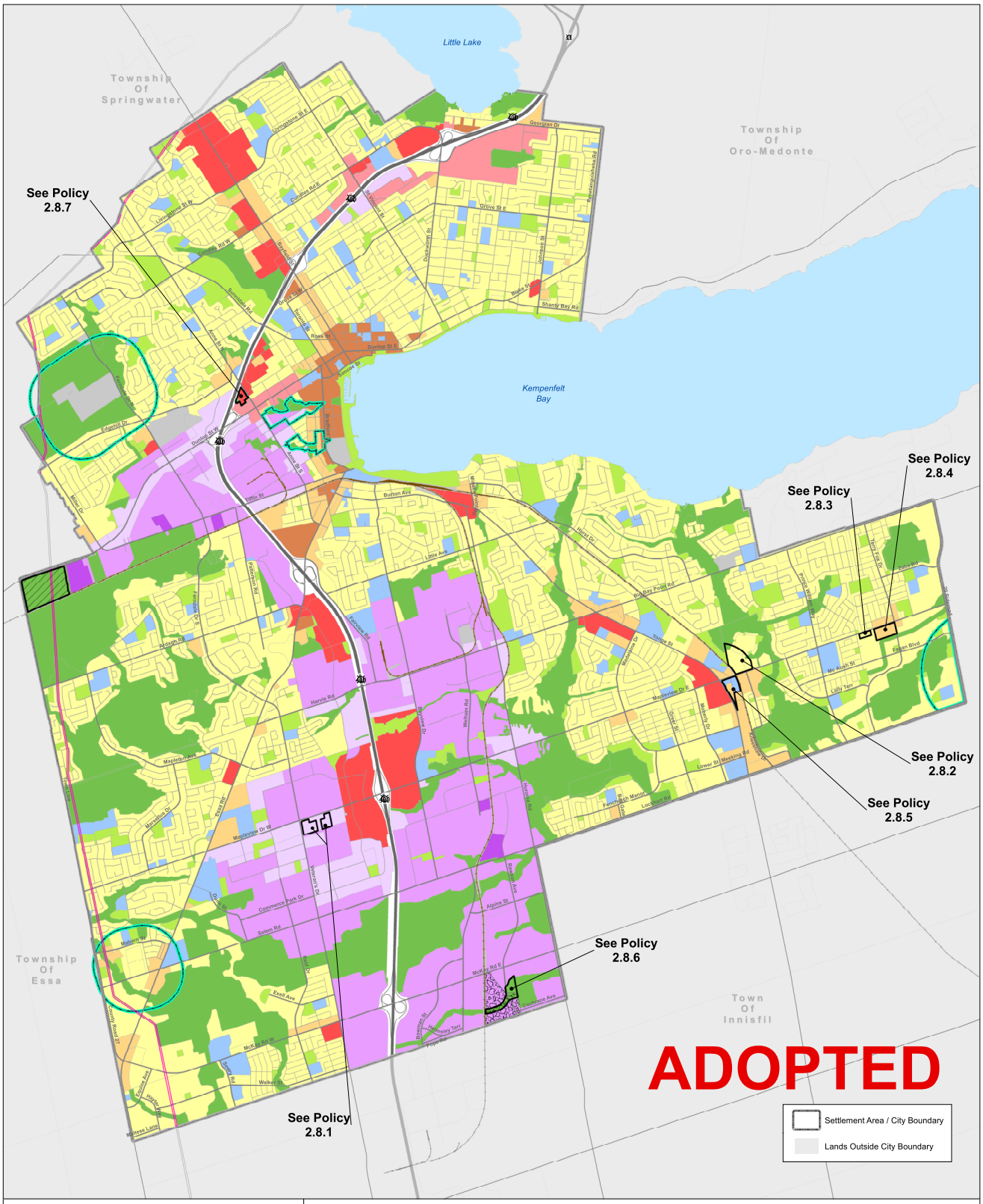
MAPLEVIEW DRIVE EAST ROAD WIDENING

PLAN & PROFILE STA. 8+640 TO STA. 8+800

Barrie
INFRASTRUCTURE DEPARTMENT

SCALE HOR.	1:250	VERT.	1:50	CONTRACT NO. 300042426
DESIGN	DP	DRAWN	ML	SHEET NO. PP5
REVIEWED	DD	DATE	2018/11/26	

5/26/2021 1:05 PM DAVID PRIMMER P&P ROAD 2 (PHASE 2).DWG



Barrie

OFFICIAL PLAN

MAP 2
Land Use Designations

February 2022

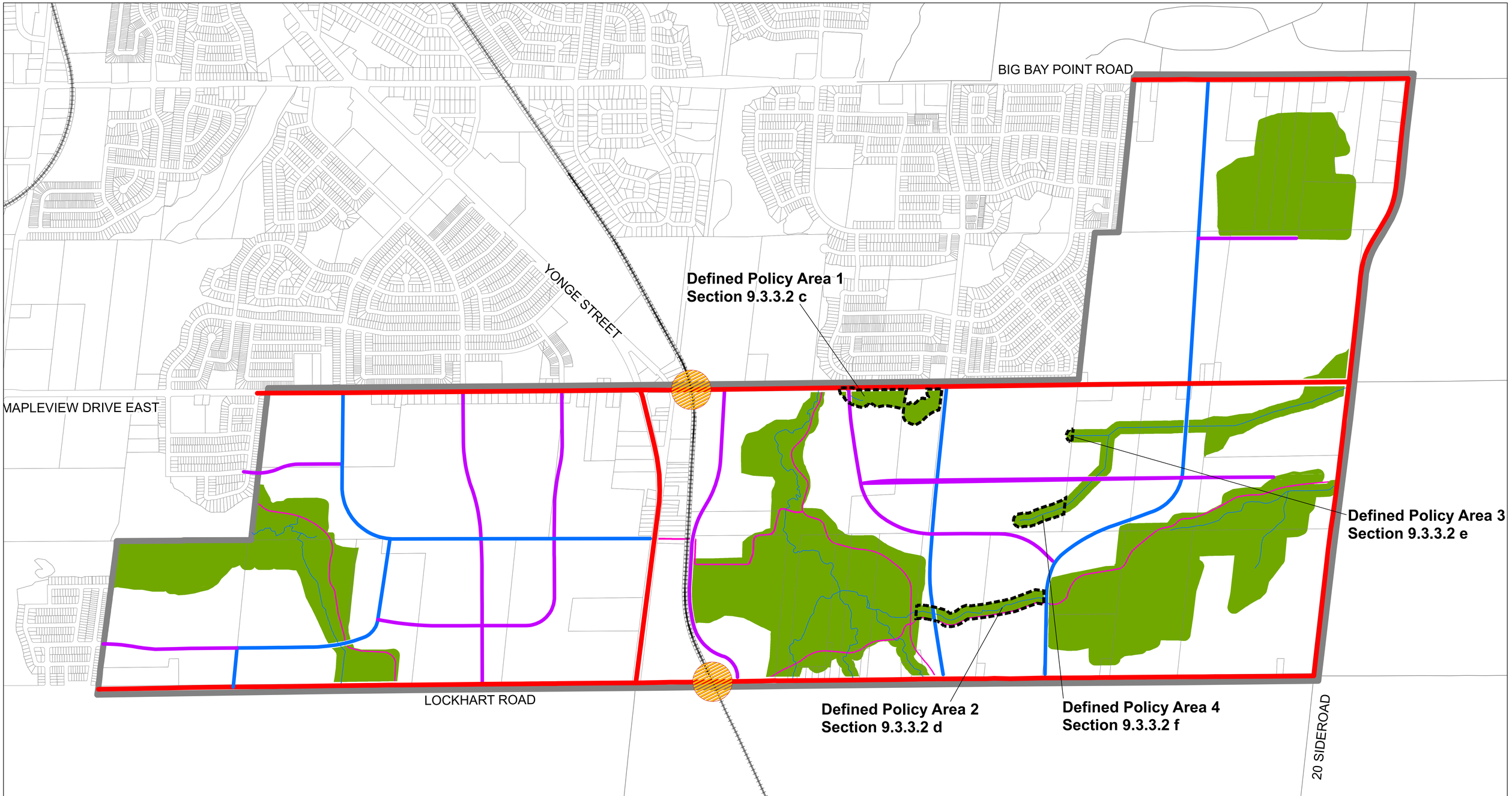
- Neighbourhood Area
- Medium Density
- High Density
- Strategic Employment and Economic District (SEED)
- Commercial District
- Community Hub
- Employment Area - Non Industrial
- Employment Area - Industrial
- Employment Area - Restrictive Industrial
- Natural Heritage System
- Greenspace
- Infrastructure and Utility
- Waste Disposal Assessment Area
- Extractive Industrial
- Defined Policy Area
- Application Before the Local Planning Appeal Tribunal (LPAT)
- TransCanada Pipeline Right of-way

* All land use designations extend to the centre line of the right-of-way for streets. Land use designations, where applicable, extend to/terminate at the boundary of the right-of-way for provincial highways, rail corridors and utility corridors.

** Certain features like roads, parks and trails within the undeveloped designated greenfield area are conceptual and subject to change.

0 1 2 km

Development Services 3/2/2022



Secondary Plan Boundary

Existing Parcel Fabric

Railway

Stream

Arterial

Major Collector

Minor Collector

Pathway System

Maximum Width (m)
41
27
24

Potential Grade Separation

Natural Heritage System

Defined Policy Area

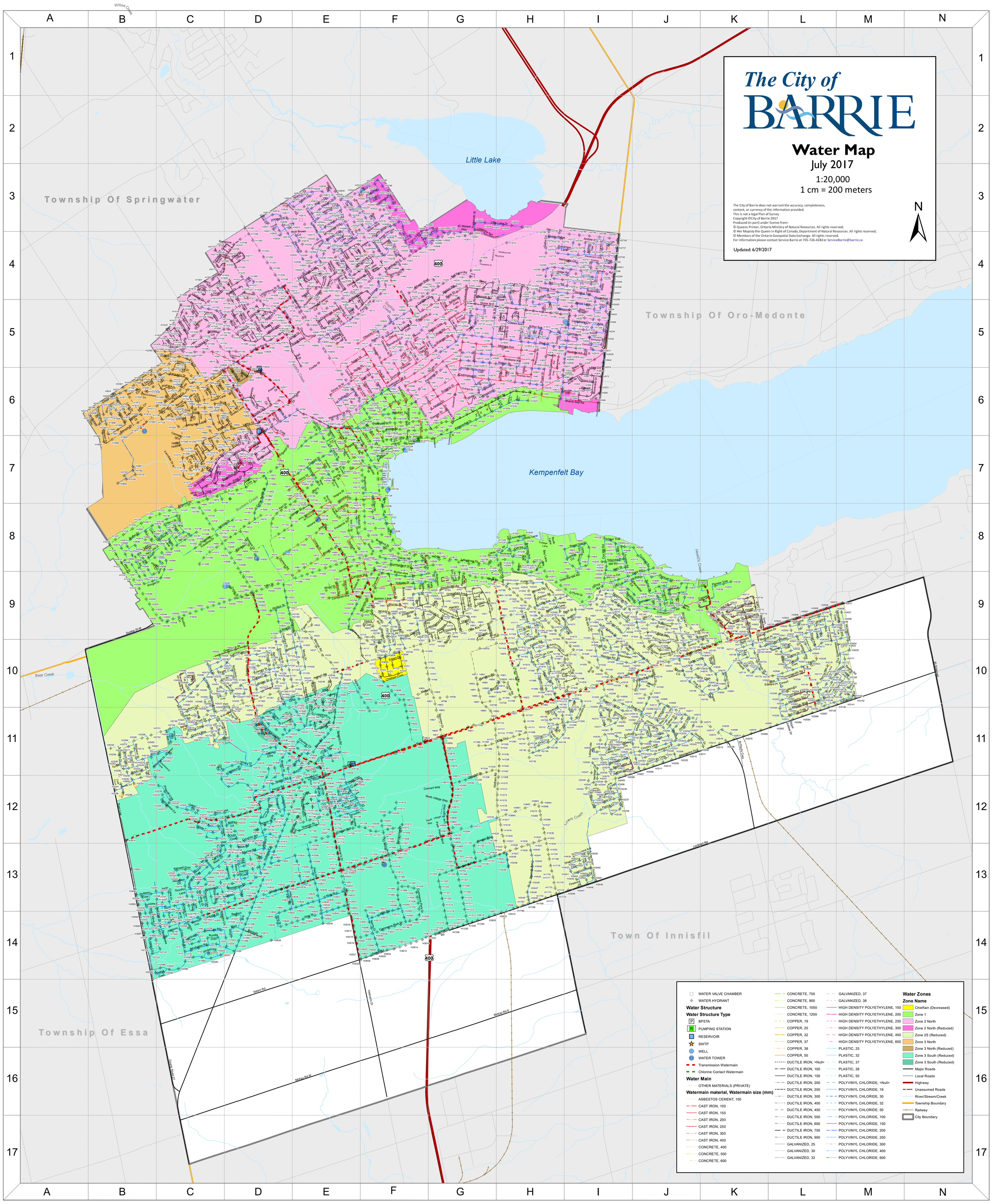
0 0.25 0.5 1 km

Schedule 9D-2

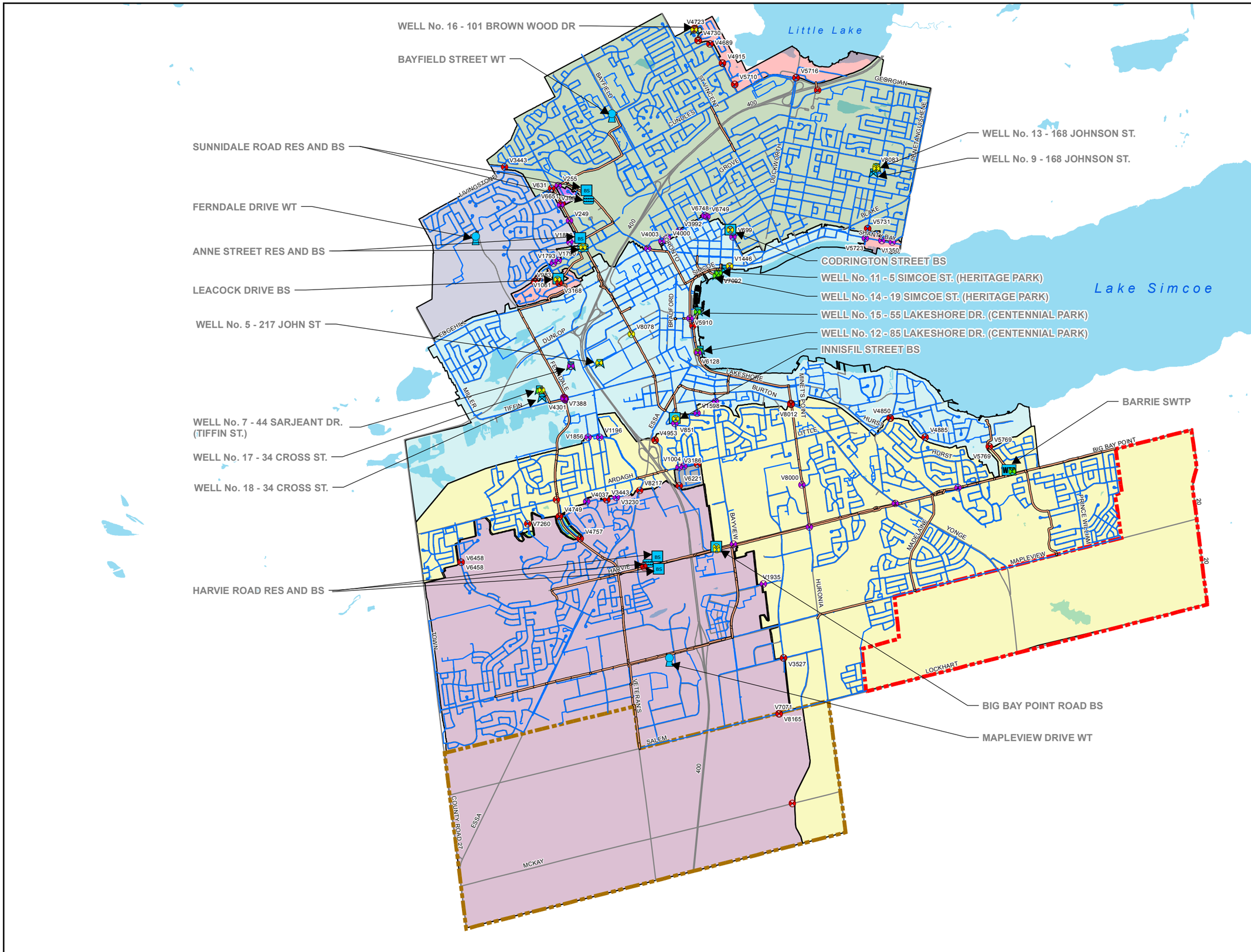
Street Widening Plan

City of Barrie
Hewitt's Secondary Plan

May 2016



20 Sideroad N9-10-11
Aconley Crt I4
Adam St H5, I5
Addison Trail I4
Adelaide St F9
Agnes St E5-6, F5
Aikens Cres E11
Albert St F6, G6
Aldergrove Cir E4
Aleda St D6
Alexander Ave I5
Alfred St E9
Algonquin Trail I6
Alliance Blvd F4-5, G4
Allsop Cres C12, D12
Alva St D9
Ambler Bay I4
Amelia St F6, G6
Anne St N C4-5-6, D6-7, E7
Anne St S E7-8-9, F9
Arbour Trail I8
Arch Brown Crt D4, E4
Archer St D10
Ardagh Rd B11, C11, D10-11, E10
Argyle Rd D5, E5
Armstrong Blvd G9
Army, Navy And Air Force Dr E8
Arthur Ave H5, I5
Ashdale Crt E4
Ashford Dr J10
Aspen Dr E4
Assiniboine Dr C14
Athabaska Rd C14, D14
Atwood Crt D6
Auburn Crt C10, C11
Austen Lane C6, D6
Autumn Lane G9
Bailey Crt F9
Baker Cres E5
Baldwin Lane F9
Balliston Rd C5
Balmoral Pl L9
Balsam Trail C13
Baltimore Rd E4, F4
Barre Dr I10
Barrett Cres C6
Barrie View Dr F12, F13
Bartor Blvd I13
Barwick Dr C5
Basswood Dr D12
Bates Crt H9
Batteaux St B11
Bay Lane H8-9
Bayfield St D3-4, E4-5-6, F6-7
Bayshore Blvd I9, J9
Bayview Dr F8-9-10, G10-11-12-13-14
Beach Crt H10, I10
Beacon Rd E11
Bear Creek Dr B13, C13
Beatrice Lane L10
Bedford Estates Cres J10
Beechcroft Cir E4
Beecroft Gate F5, G5
Belcourt Ave G5
Bell Farm Rd F4-5, G4
Bell St C11, D11
Bellevue Cres G4-5
Benjamin Lane I11
Bennet Rd F5
Benson Dr B6-7
Bentley Cres E12
Berard Crt C11
Berczy St F6, G6-7
Bernick Dr G4
Berry Crt C11
Bertha Ave J10
Bethune Pl D6
Bibby Crt D12
Big Bay Point Rd F11, G11, H10-11, I10, J10, K9-10, L9, M9, N9
Bingham Crt H8
Birchshire Dr E10-11
Birchwood Dr E3-4
Bird St C8
Birkhall Pl K10-9, L9
Bishop Dr D10
Black Ash Trail B11-12
Black Cherry Cres C13
Black Willow Dr B13-14
Blackbird Lane E12
Blair Cres I5
Blake St G6, H6, I5-6
Bloom Cres D11
Bloxham Pl J9
Blue Mound Dr G5
Blueberry Lane E12
Bluegrass Dr D12
Bluejay Dr F4
Bluewater Trail J9
Boag Crt E12
Boorman Crt D13
Booth Lane I11
Bothwell Cres F5
Boulton Crt C9
Bourbon Cir L10
Bowman Ave H6
Boyd St I10
Boys St N E7
Boys St S E7
Bradford St F7-8
Brennan Ave H8-9
Briar Rd G9
Brighton Rd H4, I4
Bristow Crt G9
Britannic Lane K9
Broadfoot Rd C7, D7
Broadmoor Ave F9, G10-9
Brock St D9, E8-9, F8
Bronte Cres C6
Brookdale Dr D6, E6
Brookfield Cres I9, J9
Brooks St F9
Brookwood Dr E12
Brown St D11-12, E11-12
Brown Wood Dr E3, F3
Browning Trail C6-7
Bruce Cres I9
Brucker Rd D13
Brunton Cres I9
Brushwood Cres J10
Bryne Dr E10, F10-11-12-13-14
Buchanan St I5
Buggs Gate I4
Buman Crt I9
Burbank Pl F5, G5
Burke Dr D4-5
Burns Cir C6
Burton Ave F8-9, G8-9
Butternut Dr C13
Byron Cres G10-9
Callaghan Dr D6-7
Callaway Crt D3
Camelot Sq J9, K9
Campbell Ave E9
Campfire Crt H6, I6
Canary Reed Crt C13, D13
Capilano Crt F4, G3-4
Caplan Ave E12-13, F12
Capps Dr J9
Cardinal St E4, F4
Caribou Crt C14
Carley Cres I11
Carlton Rd E5
Carman Crt C7
Carol Rd F10-9
Caroline St E9, F9
Carr Dr C7
Carruthers Cres I5
Carter Rd I10-9
Cartwright Dr E4
Cassandra Dr E3
Castle Dr D6
Catherine Dr I12
Cedar Cres J10, K10
Cedar Pointe Dr D7-8
Celeste Dr E4
Centre St E9, F9
Chalmers Dr H11, I10-11
Chamboro Crt L10
Chantal St I10-11
Charlbrook Ave E5
Charlemagne Ave L10-9
Charles Crt F9
Charleson Dr C13, D13
Charlotte Crt C6
Chase Mceachern Way F7
Chaucer Cres C6, D6
Checkley St F7
Cheltenham Rd H4, I4
Cherry Crt J10
Chestnut Crt E5
Chieftain Cres F10
Chippawa Crt I6
Christie Cres C6
Churchill Dr G11-12, H11
Churchland Dr C13, D13
Cityview Cir E11
Claire Dr I13
Clapperton St E6, F6-7
Clarence Crt G4
Claudio Cres E12
Clearwater Crt I9, J9
Cliff Rd H8
Cloughley Dr B6-7
Clover Ave G9
Clute Cres D12
Codrington St F6, G6, H6
Coleman Dr B8, C8
Coles St D5
Colleen Ave H5
College Cres H4-5
Collete Cres E4-5, F4
Collier St F6, G6
Collingwood St G6, H6
Columbia Rd C14, D14
Commerce Park Dr E14, F13-14
Commonwealth Rd L10
Concert Way F12, G12
Connaught Lane L9
Consort Dr L10
Cook St G5-6, H4-5-6
Copeman Cres H10
Corbett Dr H4
Coronation Pky L10
Corrinhall St I5
Cottage Lane H8
Coughlin Rd D12
Coulter St D5, E5-6
Counsellor Terr L10, M10
Country Lane I11-12, J11
County Road 27 B14-15, C15-16-17
Couples Crt D3, E3
Courtney Cres J11
Cox Mill Rd I8-9-10
Craig Cres D5
Cranberry Lane E12
Crawford St D10-9, E10
Crestwood Dr I6
Creswick Crt F5
Crew Court B12
Crimson Ridge Rd J9
Crompton Dr F3
Cross St D9
Cumberland St F8, G8
Cumming Dr C11-12, D11-12
Cundles Rd E E4-5, F4, G4
Cundles Rd W B6,C6,D5-6,E5
Cunningham Dr C10, D10
Currie St F5
Curtiss Crt H5
Cuthbert St D10
Cynthia Crt F4-5, G4-5
Dalton St E6
D'Ambrosio Dr H10, I10
Danielle Cres I12
Daphne Cres E5, F4-5
Darcel Cres E3-4
Davidson St F5-6
Davies Cres G5
Dean Ave I10-11, J11
Deborah Way I10, J10
Debra Cres F9
Deerpark Dr E4
Delaney Cres B6
Diana Way L10, M10
Dickens Dr C6
Dixon Crt I9
Dock Rd I9, J8-9
Dodson Rd I9-10, J10
Donald St E7
Doris Dr G9
Douglas Dr H5, I5
Dove Cres D10, E10-11
Downing Cres C13
Downsview Dr H5-6
Doyle Dr C7
Drake Dr H11
Draper Cres H10
Drury Lane E6, F6
Duckworth St G3-4-5-6
Dufferin St E8
Dundonald St F6, G6
Dunlop St E F7, G6-7
Dunlop St W A10, B9-10, C8-9, D7-8, E7, F7
Dunn St D14
Dunnett Dr C11
Dunsmore Lane H4, I4
Duval Dr D3
Dyer Blvd D14
Dykstra Dr C13
Dyment Rd D8-9, E9
Eaglestone Lane C11, D11
East Gate H4
East St F6
Eccles St N E6-7
Eccles St S E7
Eden Dr D7
Edge Water Dr J9
Edgehill Dr B8, C7-8, D7
Edwards Dr J9-10, K9-10
Eileen Dr F10
Elizabeth St D9-10
Ellen St F7-8
Elliott Ave D8
Ellis Dr G11, H11
Elm St F5, G5
Elmbrook Dr E12
Emily Crt C6
Emms Dr D11-12-13
Empire Dr L10, M9-10
Engel Cres D7
Epsom Rd I4
Essa Rd C14-15-16, D12-13-14, E9-10-11-12, F8-9
Esther Dr I11, J11
Etherington Cres C5
Eugenia St F6, G6
Evergreen Crt E10-11
Fairview Rd E9-10, F10-11
Falcon Cres L10
Falling Brook Dr J9-10
Farmingdale Cres E4
Farmstead Cres C13, D12-13
Fawn Cres D11, E11
Felt Cres I9
Fenchurch Manor I13
Ferguson Dr C6
Ferndale Dr N B6-7,C7-8,D8-9
Ferndale Dr S D9-10-11, E11
Ferndale Industrial Dr C8
Ferris Lane E5, F4-5
Finlay Rd C4, D4
Finsbury St I13
Firman Dr H9
Fitzgerald Lane C7
Fitzroy Terr F9
Fleming Cres D5
Fletcher Dr H5
Florence Park Rd E10
Florence St E7
Ford St C5, D5
Forest Dale Dr E3, F3
Forestview Pl E5
Forestwood Lane I8
Forsyth Cres C4, D4
Foster Dr H9
Fox Run C7, D7
Frances St N E7
Frances St S E7
Fraser Crt E9
Fred Grant St F7
Frederick St E8
Frost Trail C6, D6
Gable's Way H8-9
Gadwall Ave H11
Gallie Crt H3-4
Garden Dr G9
Garibaldi Dr C14
Garrett Cres I6
Garson St H9
Gaskin Crt D7
Geddes Cres C5-6
George St D8, E8
Georgian Dr G4, H3-4, I4
Gibbon Dr D7
Ginger Dr C13-14
Girdwood Dr D12-13
Glen Crt G9
Glen Oak Crt E3
Glencho Dr H4,5
Glenhill Dr I13
Glenridge Rd F9
Glenwood Dr E5
Gloria St D5
Gloucester St I10
Golden Eagle Way F4
Golden Meadow Rd I9, J10-9
Golds Cres D13
Golfdale Rd D5, E5
Goodwin Dr J11, K11
Gordon Crt C5
Gore Dr C10, D10
Gosney Cres H9
Governor'S Dr G4
Gowan St F8
Grace Cres I10-11
Graihawk Dr C10
Grand Forest Dr J9-10
Grand Pl G9
Grant's Way C11
Granville St F9
Grasett Cres C5
Gray Lane I8
Greenfield Ave G9
Gregory Crt I11
Griffin Gate L10
Gross Dr B8, C8
Grouse Glen D11
Grove St E E6,F5-6,G5,H5,I5
Grove St W E6
Gunn St F5-6, G5
Gwendolyn St I12
Hadden Cres E4, F4
Hailey Hollow C7
Hambly Crt G9
Hamilton Rd G10, H10
Hanmer St E D3-4, E3
Hanmer St W C4-5, D4
Harding Ave E5
Harrison Cres C5
Harrogate Crt I4
Hart Dr D7-8, E7
Harvie Rd D12, E11-12, F11
Harwood Dr H9
Hawkins Dr C10-11
Hawthorne Cres D11
Hazel Ave E4
Heath St E5
Heather St D4-5
Hemingway Cres C7
Hemlock Crt D12
Henry St D7, E7
Heritage Crt I11-12
Herrell Ave H10-9
Hersey Cres D13
Hewitt Pl I4
Hickling Trail H4-5, I4-5
Hickory Lane K10
Higgin Crt B8, C8
High St E7, F7
Highcroft Rd F9, G9
Highland Ave G6, H6
Highview Rd G5
Hilderbrand Crt D5
Hill Crt J9
Hillcrest Rd F9, G9
Hodgson Dr B6
Hogan Crt E3
Holgate St F9, G9
Holly Meadow Rd C13
Hollyholme Farm Rd D13, E13
Honey Cres J11
Hook Crt D4
Hooper Rd G12-13, H12
Hopkins Rd I5
Horsfield Dr B6
Howard Cres G5
Hubbert Cres B13
Huitema Crt D13
Humber St B12
Hunter Rd E12
Huntington Dr B6
Huron St I5-6
Huronia Rd G9, H9-10-11-12-13-14, I14-15
Hurst Dr H8-9, I9, J9-10, K10
Imperial Crown Lane K9
Indian Arrow Rd H6, I6
Ingram Crt H9
Innisfil St E7-8, F8-9
Irene Dr I12
Irish Lane H5
Irwin Dr C5-6
Isobel St H5-6
Jackson St D12
Jacobs Terr E8-9, F8
Jagges Dr C8
James St D10
Jane Cres F9-10
Janice Dr C5
Janine St E4-5, F5
JC Massie Way G3-4
Jean St I8-9
Jeffrey St H5
Jessica Dr J11
Jewel House Lane K9
Jill's Crt H5
Joanne Crt F9
John St D8, E8, F8
Johnson St H6, I4-5-6
Jonathan Crt F5
Jones Dr H5
Joseph Cres J11
Kearsey Crt D6
Keats Dr C6-7, D7
Kell Pl J9-10
Kelly Pl G9
Kelsey Cres C11
Kemp St E11
Kempenfelt Dr G6-7, H6
Kempview Lane H8
Kenneth Ave J10
Kenny Cres D7
Kensington Trail K10
Kenwell Cres C13
Kestrel Crt F4
Kierland Rd C10
King St D13-14, E13-14
Kingsridge Rd I9
Kinzie Lane I5
Kipling Pl C6, D6
Knicely Rd H9-10
Knupp Rd B8-9
Kozlov St C4, D4-5, E5
Kraus Rd B8-9
Laidlaw Dr C4-5
Lake Cres E12
Lakeshore Dr F7-8, G8, H8
Lakeshore Mews F7
Lakeside Terr G3-4, H4
Lakeview Cres G6
Lakewoods Crt I11
Lamont Cres B11
Lampman Lane C6
Lancaster Crt M10
Lang Dr B6
Larkin Dr I4
Laurelwood Lane C11
Laurie Cres F5
Lawrence Rd F9
Lay St G5
Layton Cres D7
Leacock Dr C5-6-7, D7
Lee Cres C13
Leece Rd C4
Leggott Ave H10
Lennox Dr C8, D8
Leslie Ave D12
Letitia St C6-7, D6
Lewis Lane C7
Libra Rd F10
Lillian Cres C5, D5
Lindsay Crt E4
Lion's Gate Blvd F3-4, G3-4
Lisa Jane Crt E3, F3
Lismer Blvd H8
Lister Dr D12-13
Little Ave F10, G9-10, H9, I9
Little Lake Dr G3, H3
Live Eight Way G12
Livia Herman Way E3-4
Livingstone St E D4,E3-4,F3-4
Livingstone St W B6,C5-6,D4-5
Lockhart Rd G14, H13-14, I13, J13, K12-13, L12, M12, N11-12
Logan Crt B14, C14
Loggers Run E10-11
Longman Dr C6
Lonsdale Pl H4-5
Looker Dr D11, E11
Loon Ave H10-11, I11
Lorena St E8
Lougheed Rd B14, C14
Lount St E6
Lovers Crt I8
Lowry Court B8
Loyalist Crt K9
Lucas Ave C13-14
Lyfytt Cres D4
MacAllister Crt C7
MacLaren Ave H9
MacMillan Cres H9, I9
Madelaine Dr J10-11
Magna Carta Rd M10
Mailey Lane C8
Maitland Dr H4-5, I5
Majesty Blvd L10-11
Mall St E5
Manor Gate I9
Maple Ave E6, F6-7
Maple Crown Terr L10, M10
Maplehurst Cres E4
Mapleton Ave B11-12, C12, D12, E12
Mapleview Dr E F12-13, G12, H12, I11-12, J11, K11, L10-11, M10, N10
Mapleview Dr W B14, C13-14, D13, E13, F13
Marcus St E9
Margaret Dr E3
Marion Cres F5, G5
Marjoy Ave F3
Marsellus Dr C13-14, D12-13
Marshall St F10-9
Marta Cres C10
Marwendy Dr G5
Mary Anne Dr I9-10
Mary St E6, F6-7
Masters Dr E3
Maw Crt B6
Max Ave J11
Mayes Crt G10, H10
Mayfair Dr E10
Mayor Lane I5
McAvoy Dr B9, C8-9
McCarthy Crt C7
McCausland Crt E11
McConkey Pl G9, H9
McCron Cres C6
McCuaig Crt H5
McCullough Crt H8
McCutcheon Crt B6
McDonald St F6
McDougall Dr D4-5
McIntyre Dr B11
McKay Rd E F15,G15,H15,I15
McKay Rd W C16-17, D16, E16, F15-16
McKenzie Cres C10, D10
McVeigh Dr B6, C6
Meadow Lane E11
Meadowland Ave F9, G9
Meadowlark Rd E4, F4
Megan Cres E12, F12
Melinda Cres G8-9
Melrose Ave G5, H5
Merganser Crt H11
Merrett Dr H9
Meyer Ave E3-4
Michael Cres E3-4
Michelle Dr I13
Milburn St F8, F9
Miller Dr B8-9, C9
Mills Rd F13-14
Milne Crt D5
Minet's Point Rd H8-9
Moir Cres H10
Mollard Crt F10, G10
Monarchy St L10
Monique Cres E3
Montgomery Dr J10
Montserrand St E11
Moon Dr E9-10
Moore Pl C7
Morrow Rd E9-10
Morton Cres C4
Mountbatten Cres G6
Mountbatten Rd G6
Mowat Cres C6
Muir Dr C11
Mulberry Crt I9
Mulcaster St F6-7
Mulholland St E7
Murray St F9
Nakiska Crt C13-14
Napier St G5, H5-6
Nathan Cres I11-12, J11
Neelands St C5
Nelson Sq E H6
Nelson Sq W H6
Nelson St H4-5-6
Neva Rd C11
Newberry Crt I11
Newton St F5-6
Nicholson Dr C10, D10
Nicklaus Dr D3, E3
Nicole Marie Ave E3-4
Nightingale Cres I10-11
Nina Rd I10
Noam Dr D5
Norman Dr M10
Norris Dr F13-14
North Lane H8
North St E6, F5-6
North Village Way F12, G12
Northpark Rd F5
Northview Cres A6, B6
Nugent Crt C5
Oak St F5-6
Oakley Park Sq F5
Oakridge Dr D5-6
Oakside Crt C12
Oates Lane C7
Oliver St I5
Orchard Dr G6
Oren Blvd D5
Oriole Crt E4
Orleans Ave M9
Orok Lane H5
Orsi Crt C11
Orwell Cres C7
O'Shaughnessy Cres E12
Osprey Ridge Rd F3-4
Ottaway Ave E5, F5
Owen St F5-6-7
Pacific Ave F4
Pae Dr H10, I10
Palling Lane H5
Palmer Dr D3, E3
Parisian Cres L10
Park Place Blvd G12
Park St E7
Parkdale Cres F5-6
Parker Crt D6
Parkside Dr E6-7
Parkway Pl E4
Partridge Rd E11
Pass Crt C10, D10-11
Patricia Ave E5
Patrick Dr I12
Patterson Pl D10, E10
Patterson Rd D9, E9-10-11
Patton Rd H10
Peacock Lane F9-10
Pearcey Cres D4
Peartree Crt G9
Peck St H9, I9
Peel St F5-6
Penetang St F6, G5-6
Penetanguishene Rd I4-5-6
Penton Dr C5
Penvill Trail B11-12
Pepin Crt L10
Pepler Pl D5
Peregrine Rd F4
Perry St E7
Peter St C10, D10
Pheasant Trail E10-11
Phillips St D9
Pickett Cres H10
Pine Dr J10, K10
Pinecliff Cres C12
Pinsent Crt D7
Pioneer Trail K9
Player Dr E3
Plunkett Crt J8-9
Poolton Lane H9, I9
Poplar Dr K10
Porcupine Cir D11, E11
Porritt St D10
Porter Cres H5
Powell Dr D6
Poyntz St F6-7
Pratt Rd G5
President's Dr G4
Primrose Cres C11
Prince Edward Pl L10
Prince Of Wales Dr K9
Prince William Way L9-10-11
Princess Margaret Gate K9
Pringle Dr B8-9, C8-9
Priscilla's Pl I13
Proclamation Dr K9-10, L9-10
Puget St H5-6
Purbrook Crt B11
Purt Crt J9, K9
Quail Cres E10
Quance St E12
Quarry Ridge H4
Queen Elizabeth Pwy K9
Queen St F6, G5-6
Quinlan Rd I4
Radenhurst Cres I5
Ramblewood Dr E12
Raquel St I10-11
Rawson Ave H13
Raymond Cres J10-11
Rebecca Crt J11
Red Oak Dr B13-14, C13-14
Redfern Ave D13-14
Redpath Rd E5
Redwood Crt H4
Regalia Way L10
Regina Rd M10
Reid Dr E13-14
Residence Rd H4
Revelstoke Crt C14
Reynolds Lane B8, C8
Richler Cres D6-7
Ridgeway Ave G9
Ridwell St C8
Ring Rd N G4, H4
Ring Rd S G4
River Ridge Rd J9-10
Riverwood Crt D5
Robert St E7-8
Robin Crt F4
Robinson St G9
Rodney St G5-6
Rolston Dr F4
Rose St E5, F5, G4-5
Rosedale Pl E4-5
Rosenfeld Dr I4-5
Roslyn Rd G4-5
Ross St E6, F6
Round Leaf Crt C14
Royal Jubilee Dr L11
Royal Oak Dr I8-9
Royal Park Blvd J9
Royal Parkside Dr K9
Ruffet Dr B8, C8
Rundle Cres C14
Russell Hill Dr I10-11
Ryan Crt F3
Salem Rd C15, D15, E14-15, F14
Sampson St G6-7
Sandalwood Crt J9
Sandringham Dr K10-9, L10
Sanford St E7-8, F8
Sarjeant Dr D8
Saunders Rd G13-14, H12-13
Sawmill Rd E10-11
Saxon Rd M10
Scott Cres C6, D6
Seaforth St E8
Sedgewood Way D11
Seline Cres I12
Selkirk Cres B14, C14
Serena Lane J10-11
Seymour Cres C14
Shadowood Rd E11
Shaina Crt I11
Shakespeare Cres C7
Shalom Way I13
Shamrock Lane L10
Shannon St G5
Shanty Bay Rd H6, I6
Shaw Cres C7
Sheila Way F3
Shelley Lane D6
Sherwood Crt B6
Shirley Ave D6-7, E6
Shoreview Dr I6
Short St F8
Shortreed Crt D4
Silver Maple Cres C12
Silver Trail B11-12
Silvercreek Cres B11, C11
Simcoe St F7
Simmons Cres C4
Simpson St E4
Sinclair Crt C5
Snelgrove Cres C4, D4
Snowden Ave L10
Snowshoe Trail D10
Snowy Owl Cres F3-4
Sophia St E F6
Sophia St W E6-7, F6
South Village Way F12, G12
Southview Rd H8
Southwoods Cres E12
Sovereign's Gate K10, L9-10, M9
Spearin Crt G5
Speirs Rd D12
Spencer Dr L10
Sperling Dr F4
Springdale Dr E4-5
Springhome Rd F9, G9
Springwood Crt C12
Sproule Dr B8-9, C8
Spruce Cres J10, K10
Srigley St D12
St Bruno's Cir D11
St Paul's Cres K11
St Vincent Sq G6
St Vincent St E3, F3-4-5, G5-6
Stanley St D3-4, E4
Stapleton Pl D11-12
Steel St G5, H5, I5
Stephanie Lane J11
Stollar Blvd F3
Stoneybrook Cres C10, C11
Strabane Ave G5, H5
Strathmore Pl K10
Stroud Pl D11, E11
Stuart Ave L9-10
Stunden Lane I12
Succession Cres L10, M10
Sumac St J9
Summerset Dr C10, D10
Sun King Cres L10-11
Sundew Dr B13,14, C13-14
Sunnidale Rd B5, C5, D5-6, E6
Sunset Pl E11
Surrey Dr F4
Susan Pl D6
Sutherland Trail J9
Sutton Dr I5
Sydenham Wells I4
Sydney Lane E12
Sylvia St G4-5
Tamarack Trail J9
Tara Rd F9
Tascona Crt F3-4
Taylor Dr I9, J9
Teal Pl H11
Teck Rd C11
Templeton Cres D7
Thackeray Cres D7
The Boulevard H8
The Queensway L9-10, M10
Theresa St F6, G6
Thicketwood Ave I13
Thomson St E6-7
Thorncrest Rd F9-10
Thrushwood Dr E11-12, F12
Tiffin St C9, D9, E8-9, F8
Timothy Lane C13
Todd Dr J9-10
Tollendal Mill Rd H9, I8-9
Tomlin Crt H9, I9
Toronto St E6-7, F7
Touchette Dr E12
Tower Cres F9, G9
Town Line A10, B10-11-12-13-14
Trask Dr C10, D10
Trevino Cir D3-4
Trillium Cres G9
Trotter Crt B12
Truman Rd G10, H10
Tudor Cres L9
Tunbridge Rd H4, I4
Turner Dr J9
Twiss Dr D13
Tyndale Rd I8-9
Tynhead Rd J8
Unicorn Lane M10
Valley Dr D6
Valley View Crt J9
Vancouver St H5-6
Vansittart Crt B6
Varden Ave H5-6
Varden Cres H6
Versailles Cres L9, M9
Vespra St D8, E7-8, F7
Veteran's Dr E11-12-13-14, F14-15-16
Veteran's Lane E11
Victoria St E7-8, F7
Victorway Dr C13
Villers St C8
Vine Cres D6
Vine St D6
Violet St C13-14
Virgilwood Cres E4
Waddington Cres C14
Wall Crt E5
Wallace Dr C6
Wallwin's Way H8-9
Walnut Cres K10
Ward Dr I10-11
Warner Rd E12
Warnica Rd I10, J10
Watson Dr E3
Weatherup Cres C5
Webb St H10
Weldon Cres H6
Weldon St H5-6
Welham Rd G10-11, H11-12-13
Wellington St E F5-6, G5
Wellington St W D7, E6-7, F6
Wells Cres D5
Wesley St D6
Wessenger Dr D13
West Gate G4, H4
Westminster Cir L9
Weymouth Rd I4
Whispering Pine Pl J9
White Cres E12
White Elm Rd C12
White Oaks Rd G8, H8
White Pine Pl G6
Whitehorn Cres C14
Whitty Lane H8
Wice Rd D12, D13
Widgeon St H11
Wilde Pl C6
Wildflower Crt C11
Wildwood Trail D10-11, E11
William Paddison Dr I4
William St F8-9
Willow Dr C12
Willow Fern Dr B11, C11
Wilson Crt G9-10
Winchester Terr M9-10
Windsor Cres K10
Wiseman Crt C6
Wismer Ave B6
Wood St E9
Woodcrest Rd G9
Woodfern Crt C13
Woodgrove Crt E4
Worsley St F6
Wright Dr C10-11
Wynes Rd H9
Yeates Ave H9
Yonge St G9, H9-10, I10, J10-11, K11-12



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1224 GARDINERS RD, SUITE 201
KINGSTON, ONTARIO,
CANADA, K7P 0G2
WWW.WSP.COM

Barrie
CITY OF BARRIE
P.O. BOX 400
BARRIE, ONTARIO

Legend

- BOOSTER STATION
- WATER RESERVOIR
- ELEVATED STORAGE TANK
- WELL PUMP HOUSE
- WATER TREATMENT PLANT
- Hewitt Secondary Plan Area
- Salem Secondary Plan Area
- WATER MAIN > 350
- WATER MAIN
- ROADS
- WATERBODY

WATER PRESSURE ZONE

- 1
- 2N
- 2N REDUCED
- 2S
- 3N
- 3N REDUCED
- 3S
- 3S REDUCED
- CHIEFTAIN DECREASED PRESSURE

VALVE

- PRESSURE REDUCING VALVE
  PRESSURE SUSTAINING VALVE
- FLOW CONTROL VALVE
- THROTTLE CONTROL VALVE
- OTHER

Data Source: Ontario Base Mapping, Ministry of Natural Resources, August 2013. Engineering Department, City of Barrie 2017.

Scale:
0 320 640 1,280 Meters
1:55,000

Project:

Water and Wastewater Master Plan Updates

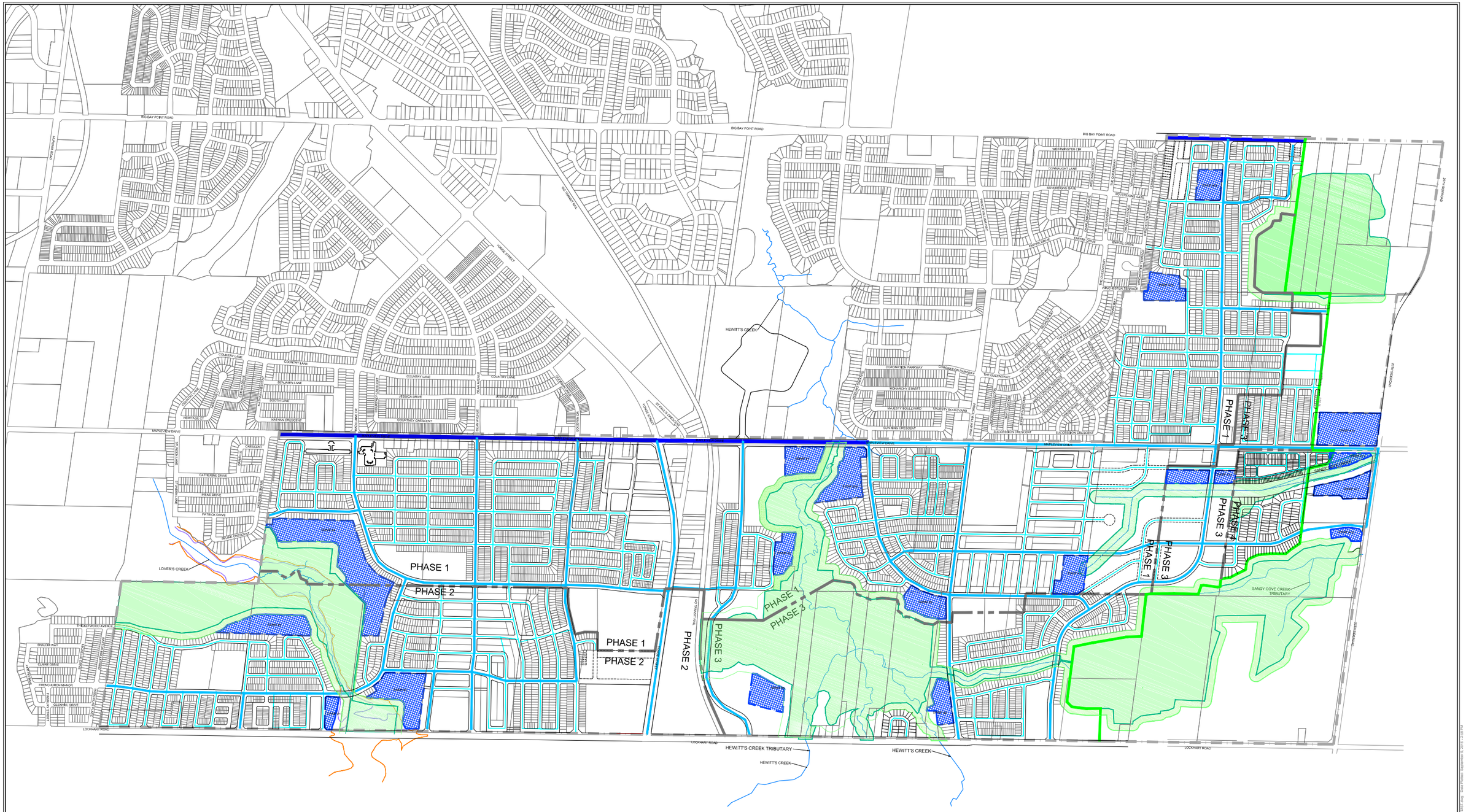
City of Barrie, Ontario

Title:

WATER DISTRIBUTION OVERVIEW MAP

Project No.:	Date:		
171-07636-03	SEPTEMBER 2018		
Drawn By:	Checked By:	Code:	Figure No.:
RJ	MF	MP	2 -2

File Location:M:\2017\171-07636-03 Barrie W&WW Master Plans Update\3.0 Technical\3.7 Reports\3.7.8 Master Plan Report\Maps\City of Barrie Maps\171-07636-03_Fig3-2_WaterDistributionOverview_r1.mxd



LEGEND

- DC TRUNK WATERMAIN
- LOCAL TRUNK WATERMAIN
- LOCAL WATERMAIN
- SURVEYED NHS LIMITS (2015)
- NHS BUFFER LIMITS
- 2031 PHASE LINE
- PHASING LIMITS
- LIMIT OF HEWITT'S CREEK SECONDARY PLAN
- STAKED 2015 NHS LIMITS
- NHS BUFFER LIMITS

0 100 200 400 600
Metres

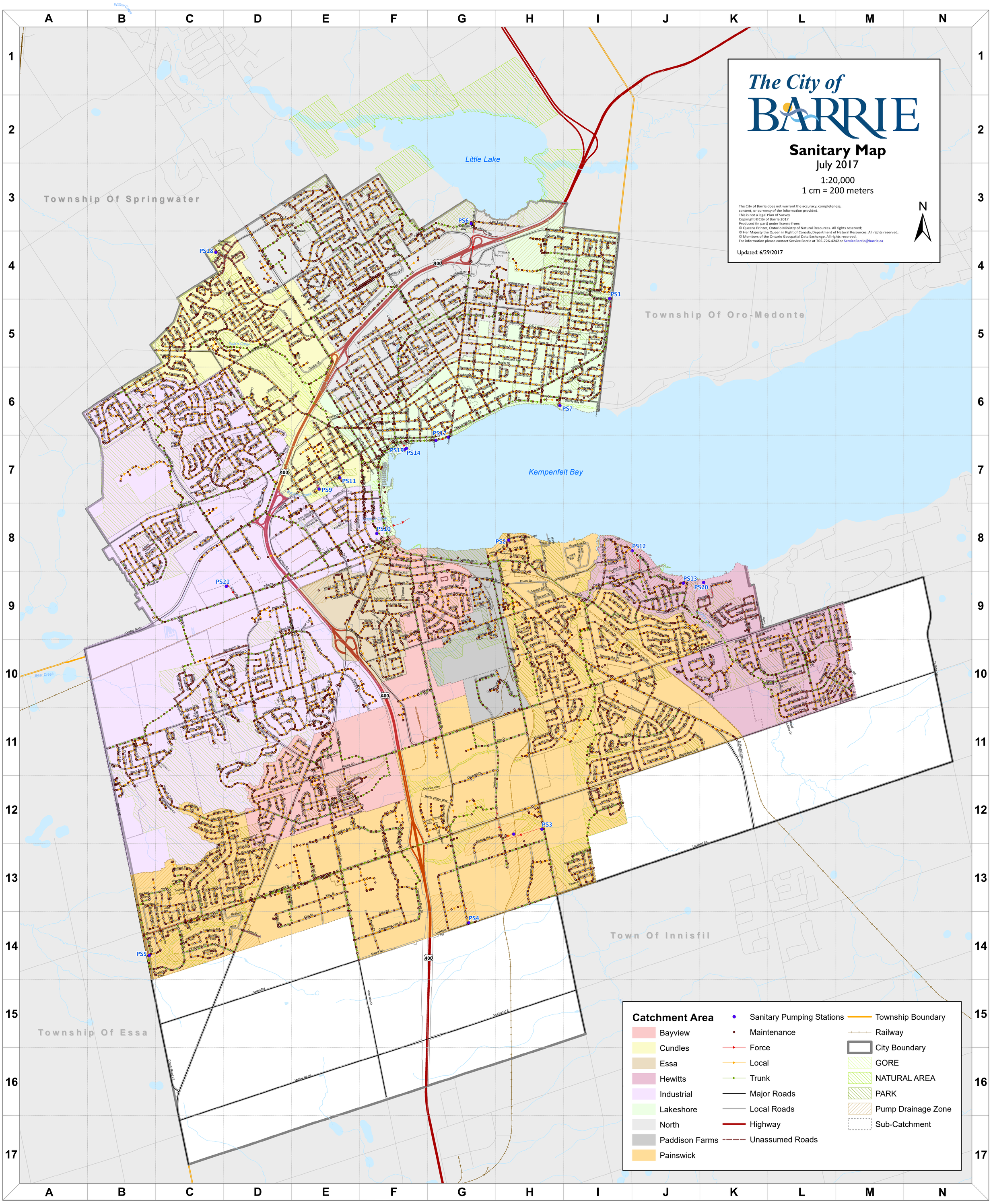
NOTE: "SCALE ONLY VALID FOR 24" x 36" SIZED PLOTS"

BURNSIDE

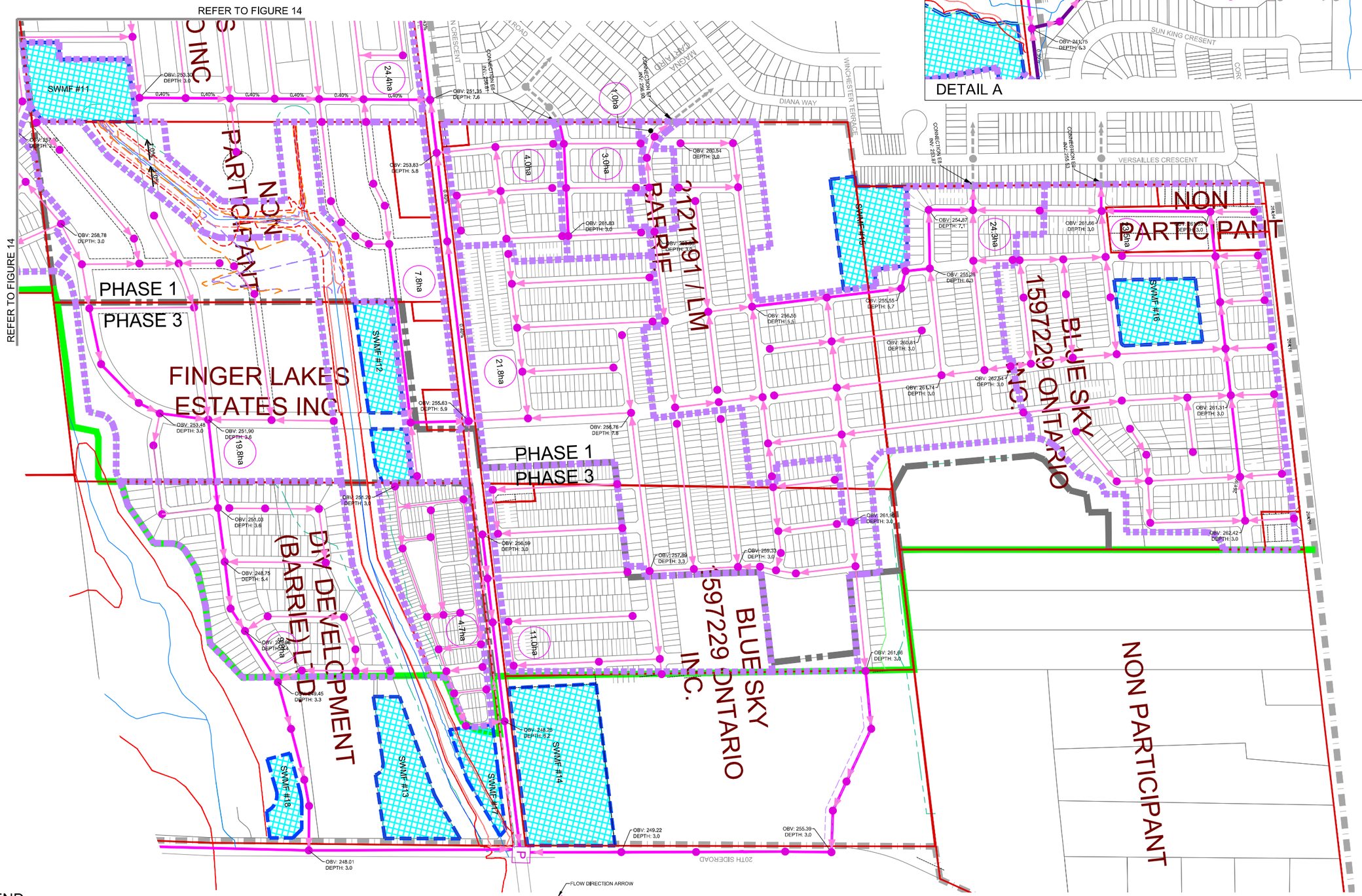
Client: HEWITT'S CREEK LANDOWNERS GROUP INC.

Figure Title: HEWITT'S SECONDARY PLAN AREA SUBWATERSHED IMPACT STUDY
PROPOSED WATER DISTRIBUTION PLAN

Drawn	Checked	Date	Figure No.
AO	BH	16/01/28	FIG 12
Scale: H 1:4,000"		Project No.: 300032860	



20 Sideroad N9-10-11
Aconley Crt I4
Adam St H5, I5
Addison Trail I4
Adelaide St F9
Agnes St E5-6, F5
Aikens Cres E11
Albert St F6, G6
Aldergrove Cir E4
Aleda St D6
Alexander Ave I5
Alfred St E9
Algonquin Trail I6
Alliance Blvd F4-5, G4
Allsop Cres C12, D12
Alva St D9
Ambler Bay I4
Amelia St F6, G6
Anne St N C4-5-6, D6-7, E7
Anne St S E7-8-9, F9
Arbour Trail I8
Arch Brown Crt D4, E4
Archer St D10
Ardagh Rd B11, C11, D10-11, E10
Argyle Rd D5, E5
Armstrong Blvd G9
Army, Navy And Air Force Dr E8
Arthur Ave H5, I5
Ashdale Crt E4
Ashford Dr J10
Aspen Dr E4
Assiniboine Dr C14
Athabaska Rd C14, D14
Atwood Crt D6
Auburn Crt C10, C11
Austen Lane C6, D6
Autumn Lane G9
Bailey Crt F9
Baker Cres E5
Baldwin Lane F9
Balliston Rd C5
Balmoral Pl L9
Balsam Trail C13
Baltimore Rd E4, F4
Barre Dr I10
Barrett Cres C6
Barrie View Dr F12, F13
Bartor Blvd I13
Barwick Dr C5
Basswood Dr D12
Bates Crt H9
Batteaux St B11
Bay Lane H8-9
Bayfield St D3-4, E4-5-6, F6-7
Bayshore Blvd I9, J9
Bayview Dr F8-9-10, G10-11-12-13-14
Beach Crt H10, I10
Beacon Rd E11
Bear Creek Dr B13, C13
Beatrice Lane L10
Bedford Estates Cres J10
Beechcroft Cir E4
Beecroft Gate F5, G5
Belcourt Ave G5
Bell Farm Rd F4-5, G4
Bell St C11, D11
Bellevue Cres G4-5
Benjamin Lane I11
Bennet Rd F5
Benson Dr B6-7
Bentley Cres E12
Berard Crt C11
Berczy St F6, G6-7
Bernick Dr G4
Berry Crt C11
Bertha Ave J10
Bethune Pl D6
Bibby Crt D12
Big Bay Point Rd F11, G11, H10-11, I10, J10, K9-10, L9, M9, N9
Bingham Crt H8
Birchshire Dr E10-11
Birchwood Dr E3-4
Bird St C8
Birkhall Pl K10-9, L9
Bishop Dr D10
Black Ash Trail B11-12
Black Cherry Cres C13
Black Willow Dr B13-14
Blackbird Lane E12
Blair Cres I5
Blake St G6, H6, I5-6
Bloom Cres D11
Bloxham Pl J9
Blue Mound Dr G5
Blueberry Lane E12
Bluegrass Dr D12
Bluejay Dr F4
Bluewater Trail J9
Boag Crt E12
Boorman Crt D13
Booth Lane I11
Bothwell Cres F5
Boulton Crt C9
Bourbon Cir L10
Bowman Ave H6
Boyd St I10
Boys St N E7
Boys St S E7
Bradford St F7-8
Brennan Ave H8-9
Briar Rd G9
Brighton Rd H4, I4
Bristow Crt G9
Britannic Lane K9
Broadfoot Rd C7, D7
Broadmoor Ave F9, G10-9
Brock St D9, E8-9, F8
Bronte Cres C6
Brookdale Dr D6, E6
Brookfield Cres I9, J9
Brooks St F9
Brookwood Dr E12
Brown St D11-12, E11-12
Brown Wood Dr E3, F3
Browning Trail C6-7
Bruce Cres I9
Brucker Rd D13
Brunton Cres I9
Brushwood Cres J10
Bryne Dr E10, F10-11-12-13-14
Buchanan St I5
Buggs Gate I4
Buman Crt I9
Burbank Pl F5, G5
Burke Dr D4-5
Burns Cir C6
Burton Ave F8-9, G8-9
Butternut Dr C13
Byron Cres G10-9
Callaghan Dr D6-7
Callaway Crt D3
Camelot Sq J9, K9
Campbell Ave E9
Campfire Crt H6, I6
Canary Reed Crt C13, D13
Capilano Crt F4, G3-4
Caplan Ave E12-13, F12
Capps Dr J9
Cardinal St E4, F4
Caribou Crt C14
Carley Cres I11
Carlton Rd E5
Carman Crt C7
Carol Rd F10-9
Caroline St E9, F9
Carr Dr C7
Carruthers Cres I5
Carter Rd I10-9
Cartwright Dr E4
Cassandra Dr E3
Castle Dr D6
Catherine Dr I12
Cedar Cres J10, K10
Cedar Pointe Dr D7-8
Celeste Dr E4
Centre St E9, F9
Chalmers Dr H11, I10-11
Chamboro Crt L10
Chantal St I10-11
Charlbrook Ave E5
Charlemagne Ave L10-9
Charles Crt F9
Charleson Dr C13, D13
Charlotte Crt C6
Chase Mceachern Way F7
Chaucer Cres C6, D6
Checkley St F7
Cheltenham Rd H4, I4
Cherry Crt J10
Chestnut Crt E5
Chieftain Cres F10
Chippawa Crt I6
Christie Cres C6
Churchill Dr G11-12, H11
Churchland Dr C13, D13
Cityview Cir E11
Claire Dr I13
Clapperton St E6, F6-7
Clarence Crt G4
Claudio Cres E12
Clearwater Crt I9, J9
Cliff Rd H8
Cloughley Dr B6-7
Clover Ave G9
Clute Cres D12
Codrington St F6, G6, H6
Coleman Dr B8, C8
Coles St D5
Colleen Ave H5
College Cres H4-5
Collete Cres E4-5, F4
Collier St F6, G6
Collingwood St G6, H6
Columbia Rd C14, D14
Commerce Park Dr E14, F13-14
Commonwealth Rd L10
Concert Way F12, G12
Connaught Lane L9
Consort Dr L10
Cook St G5-6, H4-5-6
Copeman Cres H10
Corbett Dr H4
Coronation Pky L10
Corrinhall St I5
Cottage Lane H8
Coughlin Rd D12
Coulter St D5, E5-6
Counsellor Terr L10, M10
Country Lane I11-12, J11
County Road 27 B14-15, C15-16-17
Couples Crt D3, E3
Courtney Cres J11
Cox Mill Rd I8-9-10
Craig Cres D5
Cranberry Lane E12
Crawford St D10-9, E10
Crestwood Dr I6
Creswick Crt F5
Crew Court B12
Crimson Ridge Rd J9
Crompton Dr F3
Cross St D9
Cumberland St F8, G8
Cumming Dr C11-12, D11-12
Cundles Rd E E4-5, F4, G4
Cundles Rd W B6,C6,D5-6,E5
Cunningham Dr C10, D10
Currie St F5
Curtiss Crt H5
Cuthbert St D10
Cynthia Crt F4-5, G4-5
Dalton St E6
D'Ambrosio Dr H10, I10
Danielle Cres I12
Daphne Cres E5, F4-5
Darcel Cres E3-4
Davidson St F5-6
Davies Cres G5
Dean Ave I10-11, J11
Deborah Way I10, J10
Debra Cres F9
Deerpark Dr E4
Delaney Cres B6
Diana Way L10, M10
Dickens Dr C6
Dixon Crt I9
Dock Rd I9, J8-9
Dodson Rd I9-10, J10
Donald St E7
Doris Dr G9
Douglas Dr H5, I5
Dove Cres D10, E10-11
Downing Cres C13
Downsview Dr H5-6
Doyle Dr C7
Drake Dr H11
Draper Cres H10
Drury Lane E6, F6
Duckworth St G3-4-5-6
Dufferin St E8
Dundonald St F6, G6
Dunlop St E F7, G6-7
Dunlop St W A10, B9-10, C8-9, D7-8, E7, F7
Dunn St D14
Dunnett Dr C11
Dunsmore Lane H4, I4
Duval Dr D3
Dyer Blvd D14
Dykstra Dr C13
Dyment Rd D8-9, E9
Eaglestone Lane C11, D11
East Gate H4
East St F6
Eccles St N E6-7
Eccles St S E7
Eden Dr D7
Edge Water Dr J9
Edgehill Dr B8, C7-8, D7
Edwards Dr J9-10, K9-10
Eileen Dr F10
Elizabeth St D9-10
Ellen St F7-8
Elliott Ave D8
Ellis Dr G11, H11
Elm St F5, G5
Elmbrook Dr E12
Emily Crt C6
Emms Dr D11-12-13
Empire Dr L10, M9-10
Engel Cres D7
Epsom Rd I4
Essa Rd C14-15-16, D12-13-14, E9-10-11-12, F8-9
Esther Dr I11, J11
Etherington Cres C5
Eugenia St F6, G6
Evergreen Crt E10-11
Fairview Rd E9-10, F10-11
Falcon Cres L10
Falling Brook Dr J9-10
Farmingdale Cres E4
Farmstead Cres C13, D12-13
Fawn Cres D11, E11
Felt Cres I9
Fenchurch Manor I13
Ferguson Dr C6
Ferndale Dr N B6-7,C7-8,D8-9
Ferndale Dr S D9-10-11, E11
Ferndale Industrial Dr C8
Ferris Lane E5, F4-5
Finlay Rd C4, D4
Finsbury St I13
Firman Dr H9
Fitzgerald Lane C7
Fitzroy Terr F9
Fleming Cres D5
Fletcher Dr H5
Florence Park Rd E10
Florence St E7
Ford St C5, D5
Forest Dale Dr E3, F3
Forestview Pl E5
Forestwood Lane I8
Forsyth Cres C4, D4
Foster Dr H9
Fox Run C7, D7
Frances St N E7
Frances St S E7
Fraser Crt E9
Fred Grant St F7
Frederick St E8
Frost Trail C6, D6
Gable's Way H8-9
Gadwall Ave H11
Gallie Crt H3-4
Garden Dr G9
Garibaldi Dr C14
Garrett Cres I6
Garson St H9
Gaskin Crt D7
Geddes Cres C5-6
George St D8, E8
Georgian Dr G4, H3-4, I4
Gibbon Dr D7
Ginger Dr C13-14
Girdwood Dr D12-13
Glen Crt G9
Glen Oak Crt E3
Glencho Dr H4,5
Glenhill Dr I13
Glenridge Rd F9
Glenwood Dr E5
Gloria St D5
Gloucester St I10
Golden Eagle Way F4
Golden Meadow Rd I9, J10-9
Golds Cres D13
Golfdale Rd D5, E5
Goodwin Dr J11, K11
Gordon Crt C5
Gore Dr C10, D10
Gosney Cres H9
Governor'S Dr G4
Gowan St F8
Grace Cres I10-11
Graihawk Dr C10
Grand Forest Dr J9-10
Grand Pl G9
Grant's Way C11
Granville St F9
Grasett Cres C5
Gray Lane I8
Greenfield Ave G9
Gregory Crt I11
Griffin Gate L10
Gross Dr B8, C8
Grouse Glen D11
Grove St E E6,F5-6,G5,H5,I5
Grove St W E6
Gunn St F5-6, G5
Gwendolyn St I12
Hadden Cres E4, F4
Hailey Hollow C7
Hambly Crt G9
Hamilton Rd G10, H10
Hanmer St E D3-4, E3
Hanmer St W C4-5, D4
Harding Ave E5
Harrison Cres C5
Harrogate Crt I4
Hart Dr D7-8, E7
Harvie Rd D12, E11-12, F11
Harwood Dr H9
Hawkins Dr C10-11
Hawthorne Cres D11
Hazel Ave E4
Heath St E5
Heather St D4-5
Hemingway Cres C7
Hemlock Crt D12
Henry St D7, E7
Heritage Crt I11-12
Herrell Ave H10-9
Hersey Cres D13
Hewitt Pl I4
Hickling Trail H4-5, I4-5
Hickory Lane K10
Higgin Crt B8, C8
High St E7, F7
Highcroft Rd F9, G9
Highland Ave G6, H6
Highview Rd G5
Hilderbrand Crt D5
Hill Crt J9
Hillcrest Rd F9, G9
Hodgson Dr B6
Hogan Crt E3
Holgate St F9, G9
Holly Meadow Rd C13
Hollyholme Farm Rd D13, E13
Honey Cres J11
Hook Crt D4
Hooper Rd G12-13, H12
Hopkins Rd I5
Horsfield Dr B6
Howard Cres G5
Hubbert Cres B13
Huitema Crt D13
Humber St B12
Hunter Rd E12
Huntington Dr B6
Huron St I5-6
Huronia Rd G9, H9-10-11-12-13-14, I14-15
Hurst Dr H8-9, I9, J9-10, K10
Imperial Crown Lane K9
Indian Arrow Rd H6, I6
Ingram Crt H9
Innisfil St E7-8, F8-9
Irene Dr I12
Irish Lane H5
Irwin Dr C5-6
Isobel St H5-6
Jackson St D12
Jacobs Terr E8-9, F8
Jagges Dr C8
James St D10
Jane Cres F9-10
Janice Dr C5
Janine St E4-5, F5
JC Massie Way G3-4
Jean St I8-9
Jeffrey St H5
Jessica Dr J11
Jewel House Lane K9
Jill's Crt H5
Joanne Crt F9
John St D8, E8, F8
Johnson St H6, I4-5-6
Jonathan Crt F5
Jones Dr H5
Joseph Cres J11
Kearsey Crt D6
Keats Dr C6-7, D7
Kell Pl J9-10
Kelly Pl G9
Kelsey Cres C11
Kemp St E11
Kempenfelt Dr G6-7, H6
Kempview Lane H8
Kenneth Ave J10
Kenny Cres D7
Kensington Trail K10
Kenwell Cres C13
Kestrel Crt F4
Kierland Rd C10
King St D13-14, E13-14
Kingsridge Rd I9
Kinzie Lane I5
Kipling Pl C6, D6
Knicely Rd H9-10
Knupp Rd B8-9
Kozlov St C4, D4-5, E5
Kraus Rd B8-9
Laidlaw Dr C4-5
Lake Cres E12
Lakeshore Dr F7-8, G8, H8
Lakeshore Mews F7
Lakeside Terr G3-4, H4
Lakeview Cres G6
Lakewoods Crt I11
Lamont Cres B11
Lampman Lane C6
Lancaster Crt M10
Lang Dr B6
Larkin Dr I4
Laurelwood Lane C11
Laurie Cres F5
Lawrence Rd F9
Lay St G5
Layton Cres D7
Leacock Dr C5-6-7, D7
Lee Cres C13
Leece Rd C4
Leggott Ave H10
Lennox Dr C8, D8
Leslie Ave D12
Letitia St C6-7, D6
Lewis Lane C7
Libra Rd F10
Lillian Cres C5, D5
Lindsay Crt E4
Lion's Gate Blvd F3-4, G3-4
Lisa Jane Crt E3, F3
Lismer Blvd H8
Lister Dr D12-13
Little Ave F10, G9-10, H9, I9
Little Lake Dr G3, H3
Live Eight Way G12
Livia Herman Way E3-4
Livingstone St E D4,E3-4,F3-4
Livingstone St W B6,C5-6,D4-5
Lockhart Rd G14, H13-14, I13, J13, K12-13, L12, M12, N11-12
Logan Crt B14, C14
Loggers Run E10-11
Longman Dr C6
Lonsdale Pl H4-5
Looker Dr D11, E11
Loon Ave H10-11, I11
Lorena St E8
Lougheed Rd B14, C14
Lount St E6
Lovers Crt I8
Lowry Court B8
Loyalist Crt K9
Lucas Ave C13-14
Lyfytt Cres D4
MacAllister Crt C7
MacLaren Ave H9
MacMillan Cres H9, I9
Madelaine Dr J10-11
Magna Carta Rd M10
Mailey Lane C8
Maitland Dr H4-5, I5
Majesty Blvd L10-11
Mall St E5
Manor Gate I9
Maple Ave E6, F6-7
Maple Crown Terr L10, M10
Maplehurst Cres E4
Mapleton Ave B11-12, C12, D12, E12
Mapleview Dr E F12-13, G12, H12, I11-12, J11, K11, L10-11, M10, N10
Mapleview Dr W B14, C13-14, D13, E13, F13
Marcus St E9
Margaret Dr E3
Marion Cres F5, G5
Marjoy Ave F3
Marsellus Dr C13-14, D12-13
Marshall St F10-9
Marta Cres C10
Marwendy Dr G5
Mary Anne Dr I9-10
Mary St E6, F6-7
Masters Dr E3
Maw Crt B6
Max Ave J11
Mayes Crt G10, H10
Mayfair Dr E10
Mayor Lane I5
McAvoy Dr B9, C8-9
McCarthy Crt C7
McCausland Crt E11
McConkey Pl G9, H9
McCron Cres C6
McCuaig Crt H5
McCullough Crt H8
McCutcheon Crt B6
McDonald St F6
McDougall Dr D4-5
McIntyre Dr B11
McKay Rd E F15,G15,H15,I15
McKay Rd W C16-17, D16, E16, F15-16
McKenzie Cres C10, D10
McVeigh Dr B6, C6
Meadow Lane E11
Meadowland Ave F9, G9
Meadowlark Rd E4, F4
Megan Cres E12, F12
Melinda Cres G8-9
Melrose Ave G5, H5
Merganser Crt H11
Merrett Dr H9
Meyer Ave E3-4
Michael Cres E3-4
Michelle Dr I13
Milburn St F8, F9
Miller Dr B8-9, C9
Mills Rd F13-14
Milne Crt D5
Minet's Point Rd H8-9
Moir Cres H10
Mollard Crt F10, G10
Monarchy St L10
Monique Cres E3
Montgomery Dr J10
Montserrand St E11
Moon Dr E9-10
Moore Pl C7
Morrow Rd E9-10
Morton Cres C4
Mountbatten Cres G6
Mountbatten Rd G6
Mowat Cres C6
Muir Dr C11
Mulberry Crt I9
Mulcaster St F6-7
Mulholland St E7
Murray St F9
Nakiska Crt C13-14
Napier St G5, H5-6
Nathan Cres I11-12, J11
Neelands St C5
Nelson Sq E H6
Nelson Sq W H6
Nelson St H4-5-6
Neva Rd C11
Newberry Crt I11
Newton St F5-6
Nicholson Dr C10, D10
Nicklaus Dr D3, E3
Nicole Marie Ave E3-4
Nightingale Cres I10-11
Nina Rd I10
Noam Dr D5
Norman Dr M10
Norris Dr F13-14
North Lane H8
North St E6, F5-6
North Village Way F12, G12
Northpark Rd F5
Northview Cres A6, B6
Nugent Crt C5
Oak St F5-6
Oakley Park Sq F5
Oakridge Dr D5-6
Oakside Crt C12
Oates Lane C7
Oliver St I5
Orchard Dr G6
Oren Blvd D5
Oriole Crt E4
Orleans Ave M9
Orok Lane H5
Orsi Crt C11
Orwell Cres C7
O'Shaughnessy Cres E12
Osprey Ridge Rd F3-4
Ottaway Ave E5, F5
Owen St F5-6-7
Pacific Ave F4
Pae Dr H10, I10
Palling Lane H5
Palmer Dr D3, E3
Parisian Cres L10
Park Place Blvd G12
Park St E7
Parkdale Cres F5-6
Parker Crt D6
Parkside Dr E6-7
Parkway Pl E4
Partridge Rd E11
Pass Crt C10, D10-11
Patricia Ave E5
Patrick Dr I12
Patterson Pl D10, E10
Patterson Rd D9, E9-10-11
Patton Rd H10
Peacock Lane F9-10
Pearcey Cres D4
Peartree Crt G9
Peck St H9, I9
Peel St F5-6
Penetang St F6, G5-6
Penetanguishene Rd I4-5-6
Penton Dr C5
Penvill Trail B11-12
Pepin Crt L10
Pepler Pl D5
Peregrine Rd F4
Perry St E7
Peter St C10, D10
Pheasant Trail E10-11
Phillips St D9
Pickett Cres H10
Pine Dr J10, K10
Pinecliff Cres C12
Pinsent Crt D7
Pioneer Trail K9
Player Dr E3
Plunkett Crt J8-9
Poolton Lane H9, I9
Poplar Crt K10
Porcupine Cir D11, E11
Porritt St D10
Porter Cres H5
Powell Dr D6
Poyntz St F6-7
Pratt Rd G5
President's Dr G4
Primrose Cres C11
Prince Edward Pl L10
Prince Of Wales Dr K9
Prince William Way L9-10-11
Princess Margaret Gate K9
Pringle Dr B8-9, C8-9
Priscilla's Pl I13
Proclamation Dr K9-10, L9-10
Puget St H5-6
Purbrook Crt B11
Purt Crt J9, K9
Quail Cres E10
Quance St E12
Quarry Ridge H4
Queen Elizabeth Pwy K9
Queen St F6, G5-6
Quinlan Rd I4
Radenhurst Cres I5
Ramblewood Dr E12
Raquel St I10-11
Rawson Ave H13
Raymond Cres J10-11
Rebecca Crt J11
Red Oak Dr B13-14, C13-14
Redfern Ave D13-14
Redpath Rd E5
Redwood Crt H4
Regalia Way L10
Regina Rd M10
Reid Dr E13-14
Residence Rd H4
Revelstoke Crt C14
Reynolds Lane B8, C8
Richler Cres D6-7
Ridgeway Ave G9
Ridwell St C8
Ring Rd N G4, H4
Ring Rd S G4
River Ridge Rd J9-10
Riverwood Crt D5
Robert St E7-8
Robin Crt F4
Robinson St G9
Rodney St G5-6
Rolston Dr F4
Rose St E5, F5, G4-5
Rosedale Pl E4-5
Rosenfeld Dr I4-5
Roslyn Rd G4-5
Ross St E6, F6
Round Leaf Crt C14
Royal Jubilee Dr L11
Royal Oak Dr I8-9
Royal Park Blvd J9
Royal Parkside Dr K9
Ruffet Dr B8, C8
Rundle Cres C14
Russell Hill Dr I10-11
Ryan Crt F3
Salem Rd C15, D15, E14-15, F14
Sampson St G6-7
Sandalwood Crt J9
Sandringham Dr K10-9, L10
Sanford St E7-8, F8
Sarjeant Dr D8
Saunders Rd G13-14, H12-13
Sawmill Rd E10-11
Saxon Rd M10
Scott Cres C6, D6
Seaforth St E8
Sedgewood Way D11
Seline Cres I12
Selkirk Cres B14, C14
Serena Lane J10-11
Seymour Cres C14
Shadowood Rd E11
Shaina Crt I11
Shakespeare Cres C7
Shalom Way I13
Shamrock Lane L10
Shannon St G5
Shanty Bay Rd H6, I6
Shaw Cres C7
Sheila Way F3
Shelley Lane D6
Sherwood Crt B6
Shirley Ave D6-7, E6
Shoreview Dr I6
Short St F8
Shortreed Crt D4
Silver Maple Cres C12
Silver Trail B11-12
Silvercreek Cres B11, C11
Simcoe St F7
Simmons Cres C4
Simpson St E4
Sinclair Crt C5
Snelgrove Cres C4, D4
Snowden Ave L10
Snowshoe Trail D10
Snowy Owl Cres F3-4
Sophia St E F6
Sophia St W E6-7, F6
South Village Way F12, G12
Southview Rd H8
Southwoods Cres E12
Sovereign's Gate K10, L9-10, M9
Spearin Crt G5
Speirs Rd D12
Spencer Dr L10
Sperling Dr F4
Springdale Dr E4-5
Springhome Rd F9, G9
Springwood Crt C12
Sproule Dr B8-9, C8
Spruce Cres J10, K10
Srigley St D12
St Bruno's Cir D11
St Paul's Cres K11
St Vincent Sq G6
St Vincent St E3, F3-4-5, G5-6
Stanley St D3-4, E4
Stapleton Pl D11-12
Steel St G5, H5, I5
Stephanie Lane J11
Stollar Blvd F3
Stoneybrook Cres C10, C11
Strabane Ave G5, H5
Strathmore Pl K10
Stroud Pl D11, E11
Stuart Ave L9-10
Stunden Lane I12
Succession Cres L10, M10
Sumac St J9
Summerset Dr C10, D10
Sun King Cres L10-11
Sundew Dr B13,14, C13-14
Sunnidale Rd B5, C5, D5-6, E6
Sunset Pl E11
Surrey Dr F4
Susan Pl D6
Sutherland Trail J9
Sutton Dr I5
Sydenham Wells I4
Sydney Lane E12
Sylvia St G4-5
Tamarack Trail J9
Tara Rd F9
Tascona Crt F3-4
Taylor Dr I9, J9
Teal Pl H11
Teck Rd C11
Templeton Cres D7
Thackeray Cres D7
The Boulevard H8
The Queensway L9-10, M10
Theresa St F6, G6
Thicketwood Ave I13
Thomson St E6-7
Thorncrest Rd F9-10
Thrushwood Dr E11-12, F12
Tiffin St C9, D9, E8-9, F8
Timothy Lane C13
Todd Dr J9-10
Tollendal Mill Rd H9, I8-9
Tomlin Crt H9, I9
Toronto St E6-7, F7
Touchette Dr E12
Tower Cres F9, G9
Town Line A10, B10-11-12-13-14
Trask Dr C10, D10
Trevino Cir D3-4
Trillium Cres G9
Trotter Crt B12
Truman Rd G10, H10
Tudor Cres L9
Tunbridge Rd H4, I4
Turner Dr J9
Twiss Dr D13
Tyndale Rd I8-9
Tynhead Rd J8
Unicorn Lane M10
Valley Dr D6
Valley View Crt J9
Vancouver St H5-6
Vansittart Crt B6
Varden Ave H5-6
Varden Cres H6
Versailles Cres L9, M9
Vespra St D8, E7-8, F7
Veteran's Dr E11-12-13-14, F14-15-16
Veteran's Lane E11
Victoria St E7-8, F7
Victorway Dr C13
Villers St C8
Vine Cres D6
Vine St D6
Violet St C13-14
Virgilwood Cres E4
Waddington Cres C14
Wall Crt E5
Wallace Dr C6
Wallwin's Way H8-9
Walnut Cres K10
Ward Dr I10-11
Warner Rd E12
Warnica Rd I10, J10
Watson Dr E3
Weatherup Cres C5
Webb St H10
Weldon Cres H6
Weldon St H5-6
Welham Rd G10-11, H11-12-13
Wellington St E F5-6, G5
Wellington St W D7, E6-7, F6
Wells Cres D5
Wesley St D6
Wessenger Dr D13
West Gate G4, H4
Westminster Cir L9
Weymouth Rd I4
Whispering Pine Pl J9
White Cres E12
White Elm Rd C12
White Oaks Rd G8, H8
White Pine Pl G6
Whitehorn Cres C14
Whitty Lane H8
Wice Rd D12, D13
Widgeon St H11
Wilde Pl C6
Wildflower Crt C11
Wildwood Trail D10-11, E11
William Paddison Dr I4
William St F8-9
Willow Dr C12
Willow Fern Dr B11, C11
Wilson Crt G9-10
Winchester Terr M9-10
Windsor Cres K10
Wiseman Crt C6
Wismer Ave B6
Wood St E9
Woodcrest Rd G9
Woodfern Crt C13
Woodgrove Crt E4
Worsley St F6
Wright Dr C10-11
Wynes Rd H9
Yeates Ave H9
Yonge St G9, H9-10, I10, J10-11, K11-12



LEGEND

- SURVEYED NHS LIMIT (2015)
- NHS BUFFER LIMIT
- 2031 PHASE LIMITS
- DEV. LIMITS
- PHASING LIMITS
- 2031 PHASE LIMITS
- EXISTING 100 YR FLOOD LIMITS
- EXISTING REGIONAL FLOOD LIMITS
- PROPOSED 100 YR FLOOD LIMITS
- PROPOSED REGIONAL FLOOD LIMITS
- PROPOSED DRAINAGE BOUNDARY

DASHED FLOOD LINES ARE APPROXIMATE ONLY, BASED ON INTERPOLATED DATA BETWEEN FINGERLAKES AND 1091369 ONTARIO INC. DETAILED TOPOGRAPHIC DATA. FLOODLINES ARE SUBJECT TO CHANGE BASED ON ADDITION OF DETAILED TOPOGRAPHIC SURVEY.

- FLOW DIRECTION ARROW
- SANITARY DC TRUNK SEWER
- SANITARY LOCAL TRUNK SEWER
- SANITARY LOCAL COLLECTOR SEWER
- SANITARY FORCEMAIN
- SANITARY MANHOLE
- EXISTING SANITARY SEWER
- FLOW DIRECTION ARROW DEPICTS SEWER CONTINUES ON IN ARROW DIRECTION
- P PUMP STATION

0 60 120 180 240
Metres

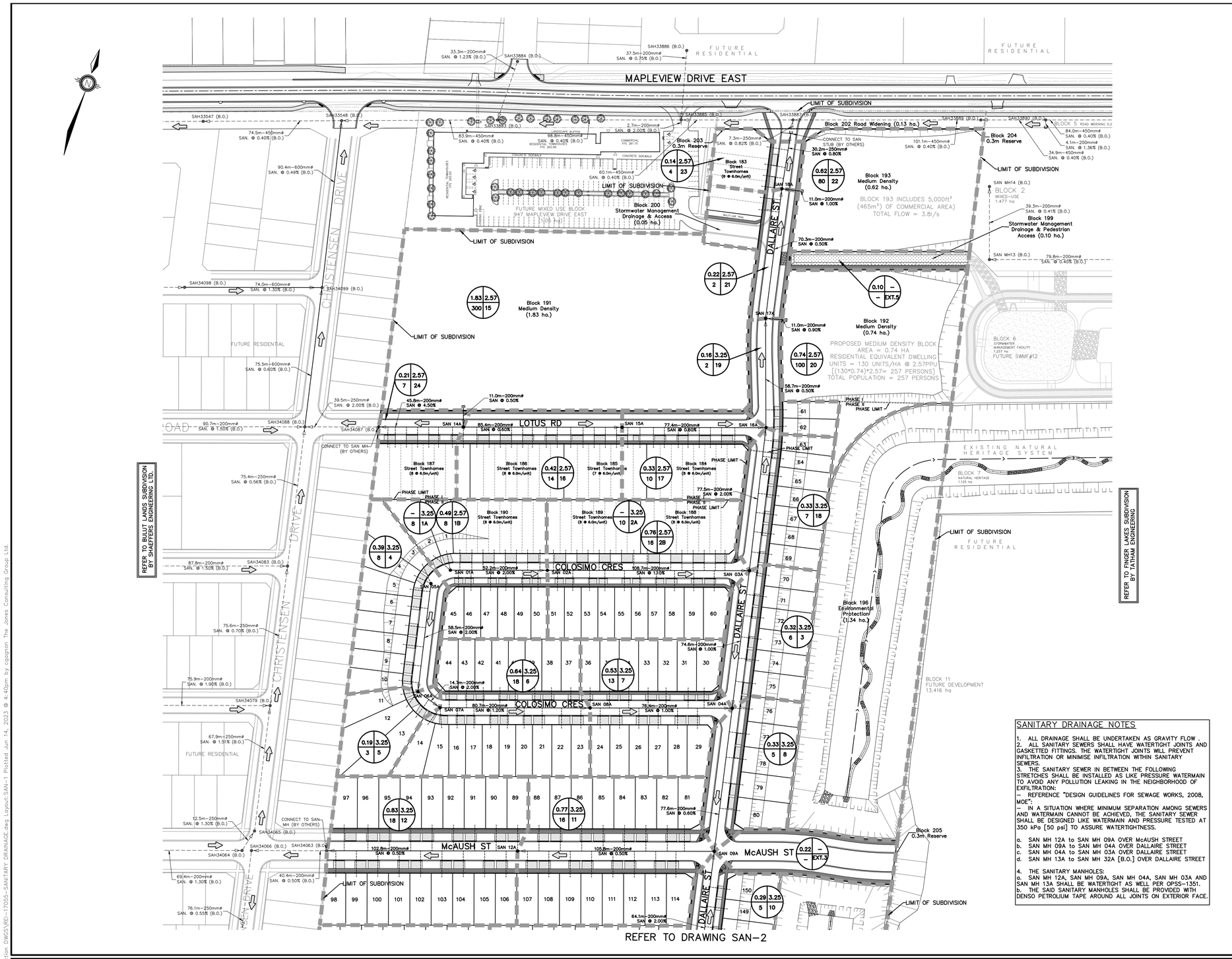
NOTE: "SCALE ONLY VALID FOR 24" x 36" SIZED PLOTS"

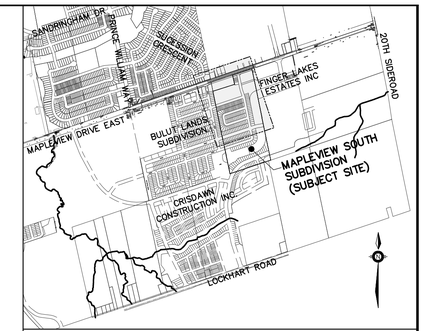
BURNSIDE

Client: HEWITT'S CREEK LANDOWNERS GROUP INC.

Figure Title: HEWITT'S SECONDARY PLAN AREA SUBWATERSHED IMPACT STUDY
PROPOSED SANITARY SEWER PLAN (3 OF 3)

Drawn	Checked	Date	Figure No.
BH	CC	16/09/07	FIG 15
Scale: H 1:3,000"		Project No. 300032860	





KEY PLAN

NTS

LEGEND

*B.O. – BY OTHERS

- PROP. SANITARY SERVICE
- PHASE LIMIT
- SAN 01A (B.O.) — SANITARY MAINTENANCE HOLE (B.O.)
- SANITARY SEWER & DIRECTION OF FLOW (B.O.)
- SAN1 — PROP. SANITARY MAINTENANCE HOLE
- PROP. SANITARY SERVICE
- PROP. SANITARY SEWER & DIRECTION OF FLOW
- 50 — MUNICIPAL ADDRESS
- 173 — LOT NUMBER
- SUB CATCHMENT BOUNDARY
- DIRECTION SANITARY OF FLOW
- AREA (ha.) — PERSONS PER UNIT; No. OF UNITS — CATCHMENT AREA ID NUMBER (0.42 | 3.25 | 10 | 13)

SANITARY DRAINAGE NOTES

1. ALL DRAINAGE SHALL BE UNDERTAKEN AS GRAVITY FLOW .
2. ALL SANITARY SEWERS SHALL HAVE WATERTIGHT JOINTS AND GASKETTED FITTINGS. THE WATERTIGHT JOINTS WILL PREVENT INFILTRATION OR MINIMISE INFILTRATION WITHIN SANITARY SEWERS.
3. THE SANITARY SEWER IN BETWEEN THE FOLLOWING STRETCHES SHALL BE INSTALLED AS LIKE PRESSURE WATERMAIN TO AVOID ANY POLLUTION LEAKING IN THE NEIGHBORHOOD OF EXFILTRATION:
   – REFERENCE "DESIGN GUIDELINES FOR SEWAGE WORKS, 2008, MOE":
   – IN A SITUATION WHERE MINIMUM SEPARATION AMONG SEWERS AND WATERMAIN CANNOT BE ACHIEVED, THE SANITARY SEWER SHALL BE DESIGNED LIKE WATERMAIN AND PRESSURE TESTED AT 350 kPa [50 psi] TO ASSURE WATERTIGHTNESS.

a. SAN MH 12A to SAN MH 09A OVER McAUSH STREET
b. SAN MH 09A to SAN MH 04A OVER DALLAIRE STREET
c. SAN MH 04A to SAN MH 03A OVER DALLAIRE STREET
d. SAN MH 13A to SAN MH 32A [B.O.] OVER DALLAIRE STREET

4. THE SANITARY MANHOLES:
a. SAN MH 12A, SAN MH 09A, SAN MH 04A, SAN MH 03A AND SAN MH 13A SHALL BE WATERTIGHT AS WELL PER OPSS–1351.
b. THE SAID SANITARY MANHOLES SHALL BE PROVIDED WITH DENSO PETROLIUM TAPE AROUND ALL JOINTS ON EXTERIOR FACE.

REFERENCES:

1. CITY OF BARRIE LATEST MANUALS AND GUIDELINES
2. OPSD AND OPSS
3. CRYSTAL HOMES SUBDIVISION DEVELOPMENT BY TATHAM ENGINEERING LIMITED
4. SANDY CLOVE CREEK REALIGNMENT BY TATHAM ENGINEERING LIMITED
5. BULUT LANDS SUBDIVISION DEVELOPMENT BY SCHAEFFERS CONSULTING ENGINEERING
6. DRAFT PLAN OF MAPLEVIEW SOUTH SUBDIVISION BY JONES CONSULTING GROUP LTD.
7. MAPLEVIEW DRIVE EAST WIDENING BY R.J. BURNSIDE & ASSOCIATES LIMITED
8. OLS PLAN BY RUDY MAK SURVEYING LTD.
9. AWAN GROUP RESIDENTIAL DEVELOPMENT BY PEARSON ENGINEERING LTD.
10. HEWITT'S GATE EAST PHASE 3 BRADLEY HOMES BY JONES CONSULTING GROUP LTD.
11. GEOTECHNICAL INVESTIGATION REPORT BY CAMBIUM INCORPORATION
12. HYDROGEOLOGICAL ASSESSMENT BY R.J. BURNSIDE & ASSOCIATES LIMITED
13. HEWITT'S SECONDARY PLAN AREA SIS BY R.J. BURNSIDE & ASSOCIATES LIMITED
14. LSRCA LATEST MANUALS AND GUIDELINES

BENCHMARK:

BENCHMARK NO. 03120080055 LOCATED APPROXIMATELY 1.9km EAST OF YONGE STREET, APPROXIMATELY 6m NORTH OF CENTERLINE OF MAPLEVIEW DRIVE EAST AND 35m WEST OF CITY BOUNDARY LINE. N491212.851 E611241.154 ELEV 223.039
BENCHMARK NO. 03120110020 LOCATED ON MAPLEVIEW DRIVE EAST ON THE SOUTH SIDE OF THE BOULEVARD, APPROXIMATELY 795m WEST OF THE MAPLEVIEW DRIVE EAST AND 20TH SIDE ROAD INTERSECTION. N491264.547 E611717.298 ELEV 225.549
BENCHMARK NO. 03120080008, LOCATED ON THE NORTH SIDE OF MAPLEVIEW DRIVE EAST (12TH CONCESSION ROAD), APROXIMATELY 0.8km EAST OF YONGE STREET (HWY #11) AND APPROXIMATELY 10.0m NORTH OF MAPLEVIEW DRIVE EAST CENTERLINE. N491176.816 E610187.698 ELEV 211.834
BENCHMARK NO: 03120080054 LOCATED ON THE SOUTH LIMIT OF MAPLEVIEW DRIVE WEST APPROXIMATELY 1km EAST OF HURONIA ROAD. N491087.122 E607601.062 ELEV 248.996

NO.	REVISIONS	DATE	INITIAL
3.	DETAILED DESIGN SUBMISSION	JUN 2023	RC
2.	FSR SUBMISSION – UPDATED	JUN 2022	MF
1.	FSR SUBMISSION FOR DRAFT PLAN	JUN 2021	DR

LICENSED PROFESSIONAL ENGINEER — R. CHATTOPADHYAY 100126966 — June 16/2023 — PROVINCE OF ONTARIO

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953 MAPLEVIEW DRIVE EAST
CITY OF BARRIE

SANITARY DRAINAGE AREA PLAN

JONES CONSULTING GROUP LTD.
PLANNERS & ENGINEERS
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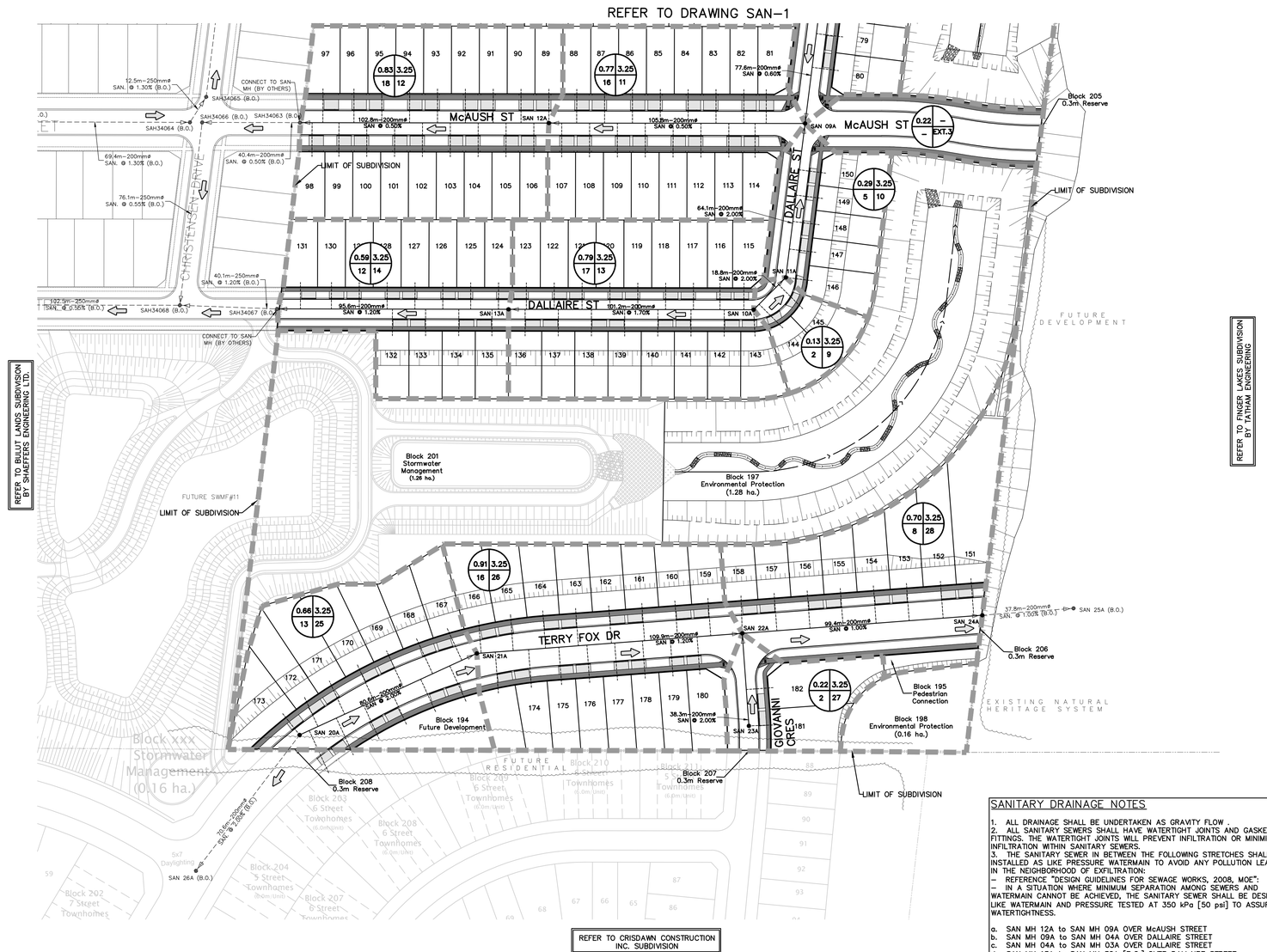
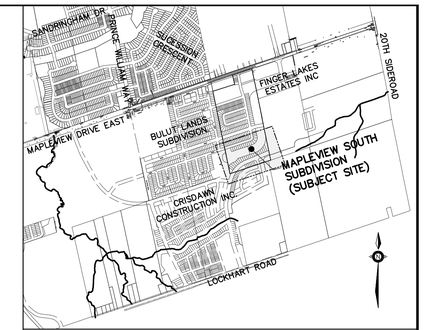
DESIGN VBS	SCALE: 1:1000	DATE FEB 2023	
DRAWN VBS	PROJECT REI–17055	DWG. № SAN–1	
CHECKED RC/DR			





KEY PLAN

NTS

LEGEND

*B.O. – BY OTHERS

- PROP. SANITARY SERVICE
- PHASE LIMIT
- SAN 01A (B.O.) — SANITARY MAINTENANCE HOLE (B.O.)
- SANITARY SEWER & DIRECTION OF FLOW (B.O.)
- SAN1 — PROP. SANITARY MAINTENANCE HOLE
- PROP. SANITARY SERVICE
- PROP. SANITARY SEWER & DIRECTION OF FLOW
- 50 — MUNICIPAL ADDRESS
- 173 — LOT NUMBER
- SUB CATCHMENT BOUNDARY
- DIRECTION SANITARY OF FLOW
- AREA (ha.) — PERSONS PER UNIT; 0.42 | 3.25; 10 | 13 — No. OF UNITS — CATCHMENT AREA ID NUMBER

SANITARY DRAINAGE NOTES

1. ALL DRAINAGE SHALL BE UNDERTAKEN AS GRAVITY FLOW .
2. ALL SANITARY SEWERS SHALL HAVE WATERTIGHT JOINTS AND GASKETTED FITTINGS. THE WATERTIGHT JOINTS WILL PREVENT INFILTRATION OR MINIMISE INFILTRATION WITHIN SANITARY SEWERS.
3. THE SANITARY SEWER IN BETWEEN THE FOLLOWING STRETCHES SHALL BE INSTALLED AS LIKE PRESSURE WATERMAIN TO AVOID ANY POLLUTION LEAKING IN THE NEIGHBORHOOD OF EXFILTRATION:
– REFERENCE "DESIGN GUIDELINES FOR SEWAGE WORKS, 2008, MOE":
– IN A SITUATION WHERE MINIMUM SEPARATION AMONG SEWERS AND WATERMAIN CANNOT BE ACHIEVED, THE SANITARY SEWER SHALL BE DESIGNED LIKE WATERMAIN AND PRESSURE TESTED AT 350 kPa [50 psi] TO ASSURE WATERTIGHTNESS.

a. SAN MH 12A to SAN MH 09A OVER McAUSH STREET
b. SAN MH 09A to SAN MH 04A OVER DALLAIRE STREET
c. SAN MH 04A to SAN MH 03A OVER DALLAIRE STREET
d. SAN MH 13A to SAN MH 32A [B.O.] OVER DALLAIRE STREET

4. THE SANITARY MANHOLES:
a. SAN MH 12A, SAN MH 09A, SAN MH 04A, SAN MH 03A AND SAN MH 13A SHALL BE WATERTIGHT AS WELL PER OPSS-1351.
b. THE SAID SANITARY MANHOLES SHALL BE PROVIDED WITH DENSO PETROLIUM TAPE AROUND ALL JOINTS ON EXTERIOR FACE.

REFERENCES:

1. CITY OF BARRIE LATEST MANUALS AND GUIDELINES
2. OPSD AND OPSS
3. CRYSTAL HOMES SUBDIVISION DEVELOPMENT BY TATHAM ENGINEERING LIMITED
4. SANDY CLOVE CREEK REALIGNMENT BY TATHAM ENGINEERING LIMITED
5. BULUT LANDS SUBDIVISION DEVELOPMENT BY SCHAEFFERS CONSULTING ENGINEERING
6. DRAFT PLAN OF MAPLEVIEW SOUTH SUBDIVISION BY JONES CONSULTING GROUP LTD.
7. MAPLEVIEW DRIVE EAST WIDENING BY R.J. BURNSIDE & ASSOCIATES LIMITED
8. OLS PLAN BY RUDY MAK SURVEYING LTD.
9. AWAN GROUP RESIDENTIAL DEVELOPMENT BY PEARSON ENGINEERING LTD.
10. HEWITT'S GATE EAST PHASE 3 BRADLEY HOMES BY JONES CONSULTING GROUP LTD.
11. GEOTECHNICAL INVESTIGATION REPORT BY CAMBIUM INCORPORATION
12. HYDROGEOLOGICAL ASSESSMENT BY R.J. BURNSIDE & ASSOCIATES LIMITED
13. HEWITT'S SECONDARY PLAN AREA SIS BY R.J. BURNSIDE & ASSOCIATES LIMITED
14. LSRCA LATEST MANUALS AND GUIDELINES

BENCHMARK:

BENCHMARK NO. 031200B0055 LOCATED APPROXIMATELY 1.9km EAST OF YONGE STREET, APPROXIMATELY 6m NORTH OF CENTERLINE OF MAPLEVIEW DRIVE EAST AND 35m WEST OF CITY BOUNDARY LINE. N4912122.851 E611241.154
ELEV 223.039
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ELEV 225.549
BENCHMARK NO. 031200B0008. LOCATED ON THE NORTH SIDE OF MAPLEVIEW DRIVE EAST (12TH CONCESSION ROAD), APPROXIMATELY 0.8km EAST OF YONGE STREET (HWY #11) AND APPROXIMATELY 10.0m NORTH OF MAPLEVIEW DRIVE EAST CENTERLINE. N4911763.816 E610187.698
ELEV 211.834
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DESIGN	VBS	SCALE: 1:1000	DATE FEB 2023
DRAWN	VBS	PROJECT REI-17055	DWG. № SAN-2
CHECKED	RC/DR		

G:\Eng_3D\REI-17055\Production DWGS\REI-17055-SANITARY DRAINAGE.dwg Layout:SAN-2 Plotted Jun 14, 2023 @ 4:38pm by cgagnon The Jones Consulting Group Ltd.