ENVISION
CONSULTANTS LTD

FUNCTIONAL SERVICING REPORT

51-55 Dundas Street West & 60-78 Agnes Street

Project #: 25-0878
Prepared for: 55 Dundas Developments Ltd. (D-Stillwaters Development Inc.)
Date: August 1, 2025

Report Version: 01

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August 1, 2025

55 Dundas Developments Ltd. (D-Stillwaters Development Inc.)
1629 Stillriver Crescent,
Mississauga, Ontario L5M 3X2

Attention: Akeem Ameen, Director

SUBJECT: FUNCTIONAL SERVICING REPORT, 51-55 DUNDAS STREET WEST & 60-78 AGNES STREET

EnVision Consultants Ltd. is pleased to present the enclosed Functional Servicing Report in support of the 1st Official Plan Amendment (OPA) / Zoning By-Law Amendment (ZBA) application for the above-noted property. This report provides the conceptual framework for water distribution, sanitary sewage and storm drainage for this development. A Stormwater Management Report outlining the proposed quality and quantity controls for stormwater on this Site has also been prepared by EnVision Consultants Ltd. under separate cover.

We thank you for utilizing EnVision for this assignment. If there are any questions regarding the enclosed report, please do not hesitate to contact us.

Yours sincerely,

Alex Williams, P.Eng.
Director – Land Development
awilliams@envisionconsultants.ca

QUALITY MANAGEMENT

ISSUE	FIRST ISSUE	REVISION 1	REVISION 2
PROJECT NUMBER	25-0878		
PROJECT REFERENCE	Functional Servicing Report, 51-55 Dundas Street West & 60-78 Agnes Street		
VERSION NO.	01		
REMARKS	FINAL		
PREPARED BY	Dabi Abikoye, P.Eng.		
SIGNATURE			
REVIEWED BY	Alex Williams, P.Eng.		
SIGNATURE			
DATE	August 1, 2025		

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EnVision Consultants Ltd. (EnVision) was retained by 55 Dundas Developments Ltd. (D-Stillwaters Development Inc.) (the 'Client') to conduct a functional servicing assessment in support of the 1st Official Plan Amendment (OPA) / Zoning By-Law Amendment (ZBA) application for the property located at 51-55 Dundas Street West & 60-78 Agnes Street (the 'Site').

The Site is a 0.44 ha parcel of land bounded by Agnes Street to the north, Dundas Street West to the south, an existing residential development (84 Agnes St) and an existing commercial development (59-77 Dundas Street West) to the west, and Cook Street to the east. Under existing conditions, the Site is occupied by three (3) residential buildings, one (1) commercial building and one (1) institutional (daycare) building with associated parking lots. A 0.02 ha area from the Site is to be dedicated to the City of Mississauga for the future Dundas Street West widening. The proposed development will consist of one (1) 34-storey mixed-use residential building with two (2) levels of underground parking. The building at 51-57 Dundas Street West is proposed to be retained for heritage purposes while the remainder of the existing buildings within the Site are proposed to be demolished to accommodate the development proposal.

The scope of this review includes site water distribution, sanitary drainage and stormwater drainage for the proposed development. A Stormwater Management Report outlining the proposed quality and quantity controls for stormwater on this Site has been prepared by EnVision under separate cover. EnVision has reviewed the Site Plan provided by RA Lumbao Architects Inc. dated July 30, 2025, background information provided by the Client, City of Mississauga, Region of Peel, Conservation Authority and other publicly available materials.

Based on the functional servicing review, EnVision presents the following findings.

- The Site will be serviced by the existing Zone 2 300mm watermain on Dundas Street West. The proposed servicing for the Site will include a 150mm domestic watermain and 200mm fire watermain extending from one (1) H-type connection to the existing watermain on Dundas Street West;
- The results of the hydrant flow tests performed by L & D Waterworks in April 2025 indicate that there is sufficient water supply in the municipal watermain system to meet the demands of the proposed development;
- The proposed sanitary servicing for the Site will connect to the existing 300mm sanitary sewer on Dundas Street West via a 200mm municipal sanitary service connection from the Site;
- The existing sanitary system is expected to have sufficient capacity to receive sanitary flows from the development as there is no surcharging in the system based on the findings of the external sanitary sewer capacity analysis;
- One (1) 200mm municipal storm service connection is proposed to the existing 300mm storm sewer on Cook Street. An underground stormwater cistern and a quality treatment unit are proposed to meet the quantity control, quality control and water balance requirements for the Site prior to discharging flows to the existing storm sewer on Cook Street.

2. INTRODUCTION

EnVision Consultants Ltd. (EnVision) was retained by 55 Dundas Developments Ltd. (D-Stillwaters Development Inc.) (the 'Client') to conduct a functional servicing assessment for the property located at 51-55 Dundas Street West & 60-78 Agnes Street (the 'Site'). It is our understanding that this assessment has been requested in support of the 1st Zoning By-Law Application (ZBA).

2.1. SITE DESCRIPTION

The development is a 0.44 ha parcel of land bounded by Agnes Street to the north, Dundas Street West to the south, an existing residential development (84 Agnes Street) and an existing commercial development (59-77 Dundas Street West) to the west, and Cook Street to the east. Under existing conditions, the Site is occupied by three (3) residential buildings, one (1) commercial building and one (1) institutional (daycare) building with associated parking lots. Refer to Figure 1 for the Site Location Plan and Figure 2 for the Pre-Development Plan.

A 0.02 ha area from the Site is to be dedicated to the City of Mississauga for the Dundas Street West widening. The proposed development will consist of one (1) 34-storey mixed-use residential building with two (2) levels of underground parking. The building at 51-57 Dundas Street West is proposed to be retained for heritage purposes while the remainder of the existing buildings within the Site are proposed to be demolished to accommodate the development proposal. The development statistics are summarized in Table 2-1. Refer to Figure 3 for an illustration of the Proposed Development Plan.

Table 2-1: Development Summary

LAND USE	NUMBER OF FLOORS	TOTAL GFA	RESIDENTIAL UNITS	ICI GFA	U/G PARKING LEVELS
MIXED-USE RESIDENTIAL	34	35,846 m^2	559	1,305 m^2	2

The Site will be serviced by existing local municipal sewers and watermains within the adjoining municipal rights-of-way. Any existing service connections to the Site within the municipal road allowance will be decommissioned by the municipality at the Owner's cost. The proposed service connections will be extended to the underground parking foundation walls and coordinated with the building design team.

2.2. OBJECTIVES, SCOPE AND BACKGROUND MATERIALS

2.2.1. OBJECTIVES

The objectives of the Functional Servicing Report are to:

- Determine the site-specific water, sanitary and stormwater servicing requirements to ensure that the development proposal is in conformance with City of Mississauga and Region of Peel guidelines;
- Establish the proposed water and sanitary demands from the development;

- Demonstrate the impact of the proposed development on the capacity of the existing infrastructure in the area and identify necessary improvements to municipal servicing infrastructure if required;
- Develop a water, sanitary and stormwater servicing strategy for the development; and
- Determine the grading approach for the development and identify grading constraints.

2.2.2. SCOPE

The scope of this Functional Servicing Report includes the following components:

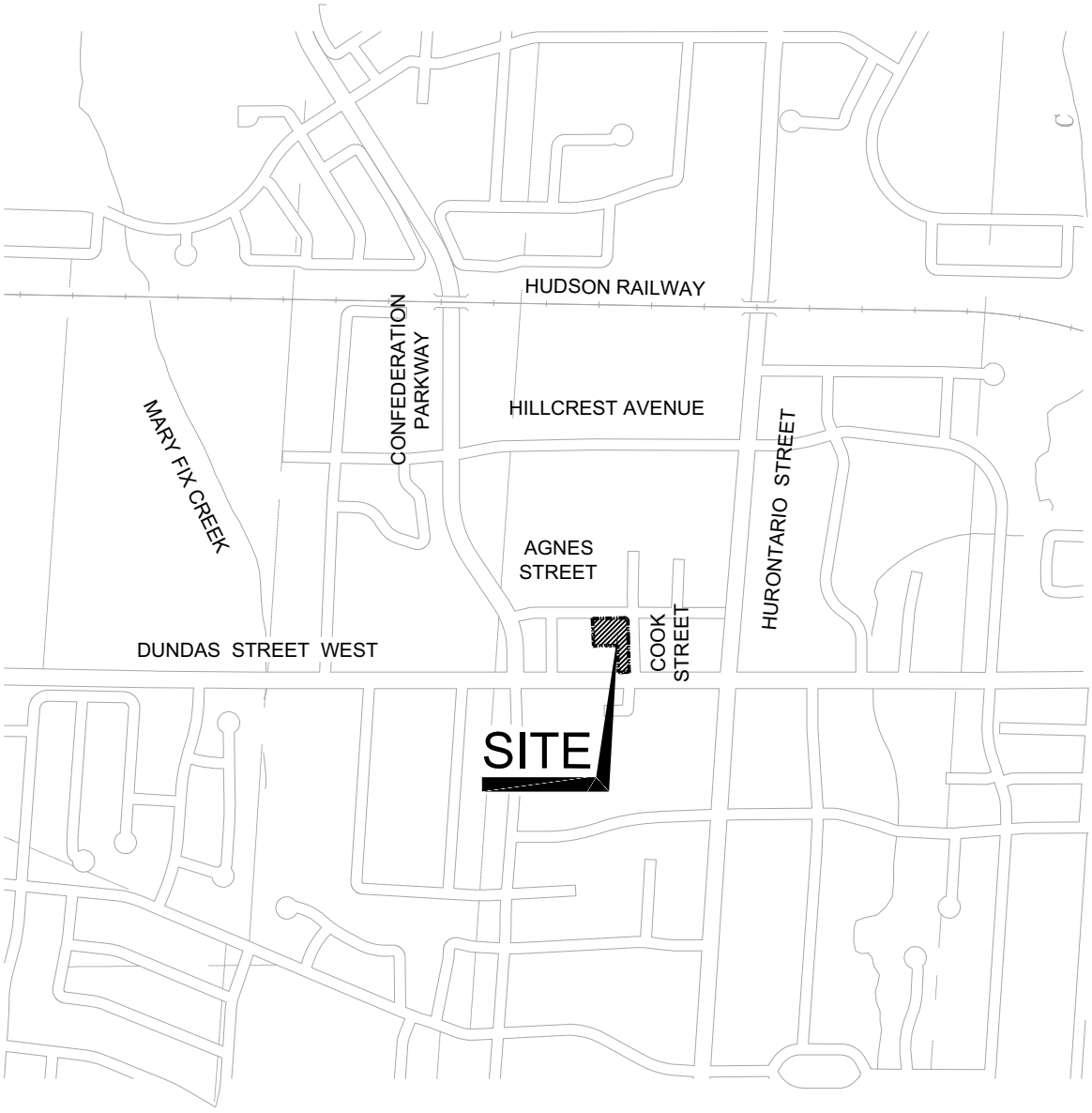
- Water Distribution
- Sanitary Drainage
- Stormwater Drainage
- Site Grading

A Stormwater Management (SWM) Report outlining the proposed stormwater quality and quantity controls has been prepared under a separate cover by EnVision Consultants Ltd., dated August 1, 2025.

2.2.3. BACKGROUND MATERIALS

In preparing this report, EnVision used the following information to evaluate the servicing and grading for the Site:

- Topographic Survey prepared by Tarasick McMillan Kubicki Ltd dated September 5, 2024;
- Architectural Plan prepared by RA Lumbao Architects Inc. dated July 30, 2025;
- Subsurface Utility Investigation Report prepared by 4Sight Utility Engineers dated May 13, 2025;
- City of Mississauga Transportation and Works Development Requirements Manual dated August 2020;
- Region of Peel Linear Wastewater Standards dated March 2023;
- Region of Peel Public Works Design, Specifications & Procedures Manual – Watermain Design Criteria dated June 2010;
- Section 8 – City of Mississauga Transportation and Works Development Requirements Manual dated August 12, 2020; and
- Stormwater Management Report – 60-70 Agnes Street & 51-55 Dundas Street West prepared by EnVision Consultants Ltd. dated August 1, 2025.



CLIENT

55 DUNDAS DEVELOPMENT LTD.
(D-STILLWATERS DEVELOPMENTS INC.)

TITLE

51-55 DUNDAS STREET WEST & 60-78 AGNES STREET

LOCATION PLAN

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Checked D.A.	Drawn M.R.
Date AUG 2025	Proj. No. 25-0878
Scale NTS	Figure No. 1

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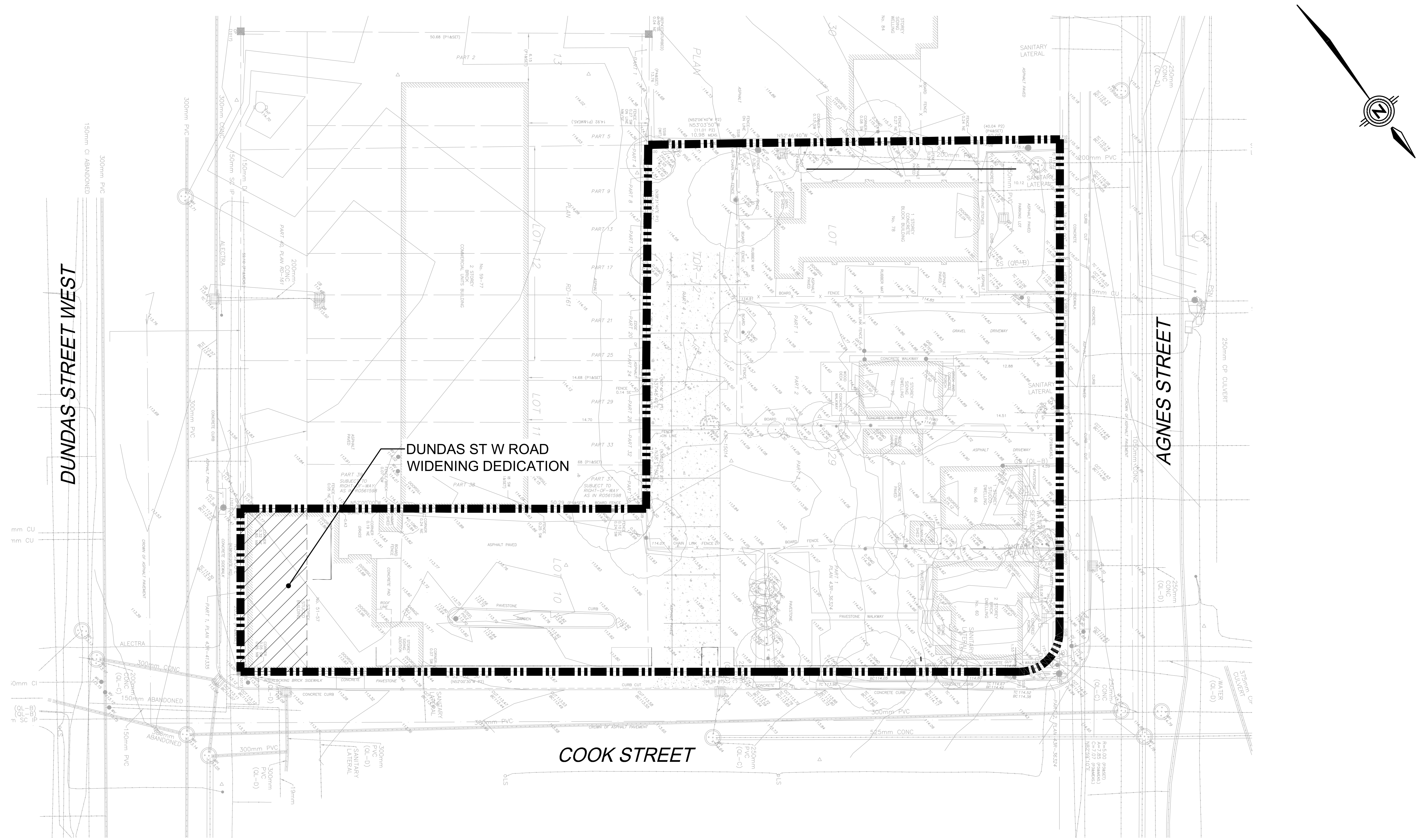
PLOTDATE: Jul 30, 2025 - 3:21pm, JulianaZupancic



LEGEND

LIMIT OF PROPERTY

CLIENT	55 DUNDAS DEVELOPMENT LTD. (D-STILLWATERS DEVELOPMENTS INC.)
TITLE	51-55 DUNDAS STREET WEST & 60-78 AGNES STREET PRE- DEVELOPMENT PLAN

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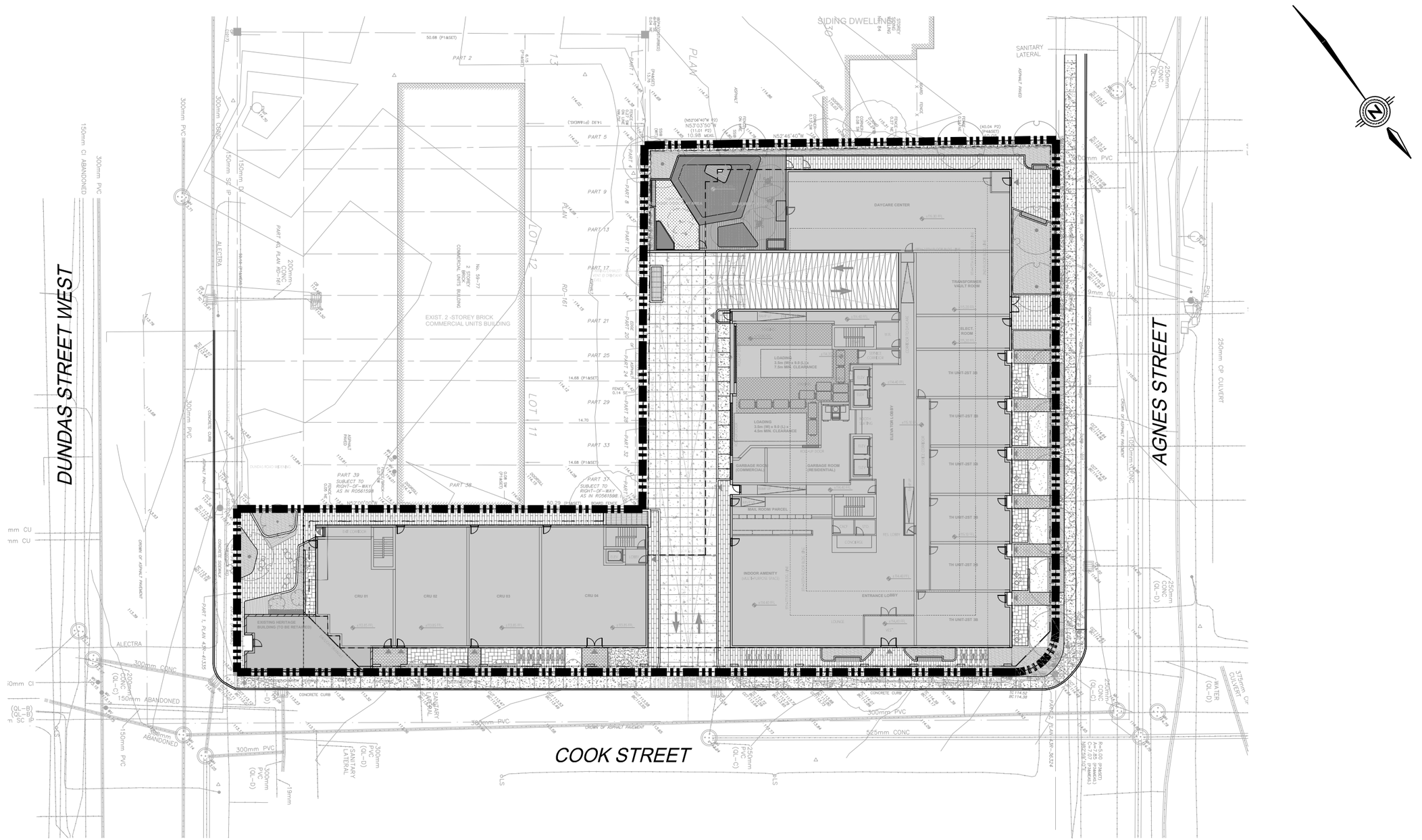
Date: 24-0878	Proj. No.: AUG 2025
Scale: 1: 500	Figure No.: 2



LEGEND

LIMIT OF PROPERTY

CLIENT
55 DUNDAS DEVELOPMENT LTD.
(D-STILLWATERS DEVELOPMENTS INC.)

TITLE
51-55 DUNDAS STREET WEST & 60-78 AGNES STREET

PROPOSED DEVELOPMENT PLAN

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24-0878	AUG 2025
Scale	Figure No.
1: 500	3

3. WATER SERVICING

3.1. EXISTING CONDITIONS

EnVision has obtained record engineering drawings from the Region of Peel for the area surrounding the Site. Under existing conditions, there is a 300mm Zone 2 PVC watermain on the south side of Dundas Street West, a 150mm Zone 2 PVC watermain on the north side of Dundas Street West and a 400mm Zone 2 CPP watermain on the north side of Agnes Street adjacent to the Site.

3.2. WATER DEMANDS

3.2.1. DOMESTIC WATER DEMAND

The peak domestic water demand for the development was calculated using the Region of Peel's design criteria for apartments and commercial developments. The results of the calculation are summarized in Table 3-1 below. Refer to Appendix B for detailed domestic water demand calculations.

Table 3-1: Estimated Domestic Water Demand

CRITERION	INFORMATION
RESIDENTIAL WATER DEMAND RATE	280 L/person/day
TOTAL RESIDENTIAL UNITS	42 Studio Units 300 1-Bed Units 104 1-Bed + Den Units 75 2-Bed Units 28 2-Bed + Den Units 10 3-Bed Units
TOTAL RESIDENTIAL POPULATION	1511 people
ICI WATER DEMAND RATE	300 L/person/day
ICI GFA	1305 m^2
EQUIVALENT ICI POPULATION	8 people
PEAKING FACTORS	Residential: Max. Day = 2, Peak Hour = 3 ICI: Max. Day = 1.4, Peak Hour = 3
AVERAGE WATER DEMAND FROM SITE	4.92 L/s
PEAK WATER DEMAND FROM SITE	Max. Day = 9.83 L/s, Peak Hour = 14.77 L/s

3.2.2. FIRE FLOW DEMAND

The estimated fire flow has been calculated using the recommendations of the 2020 Fire Underwriters Survey. The fire flow calculation indicates that the recommended fire flow is 200 L/s (3,170USGPM). The

fire flow calculations have been prepared with the assumption that the building will be classified as fire resistive construction with combustible hazard occupancy and will be equipped with a supervised sprinkler system. The results of these calculations are included in Appendix B.

There are currently two (2) existing hydrants in the vicinity of the Site on the north side of Agnes Street. The Siamese connection to the building will be located so that it is a maximum of 45m away from a hydrant.

3.2.3. PROPOSED WATER SERVICING

One (1) domestic water service connection and one (1) fire water service connection are proposed to service the entire development. An H-style service connection with a 150mm diameter domestic service branching off a 200mm diameter fire service connection will extend from the existing 300mm watermain on Dundas Street West. Valves shall be provided on all connections at the property line. A water meter and backflow preventer will be provided on the domestic connection within the mechanical room in the building. The mechanical room will need to be accessible by the Region and provide remote read-out locations for the Region's use in reading the meters. A double detector check-valve will be provided on the fire connection immediately inside the property line and outside the foundation wall.

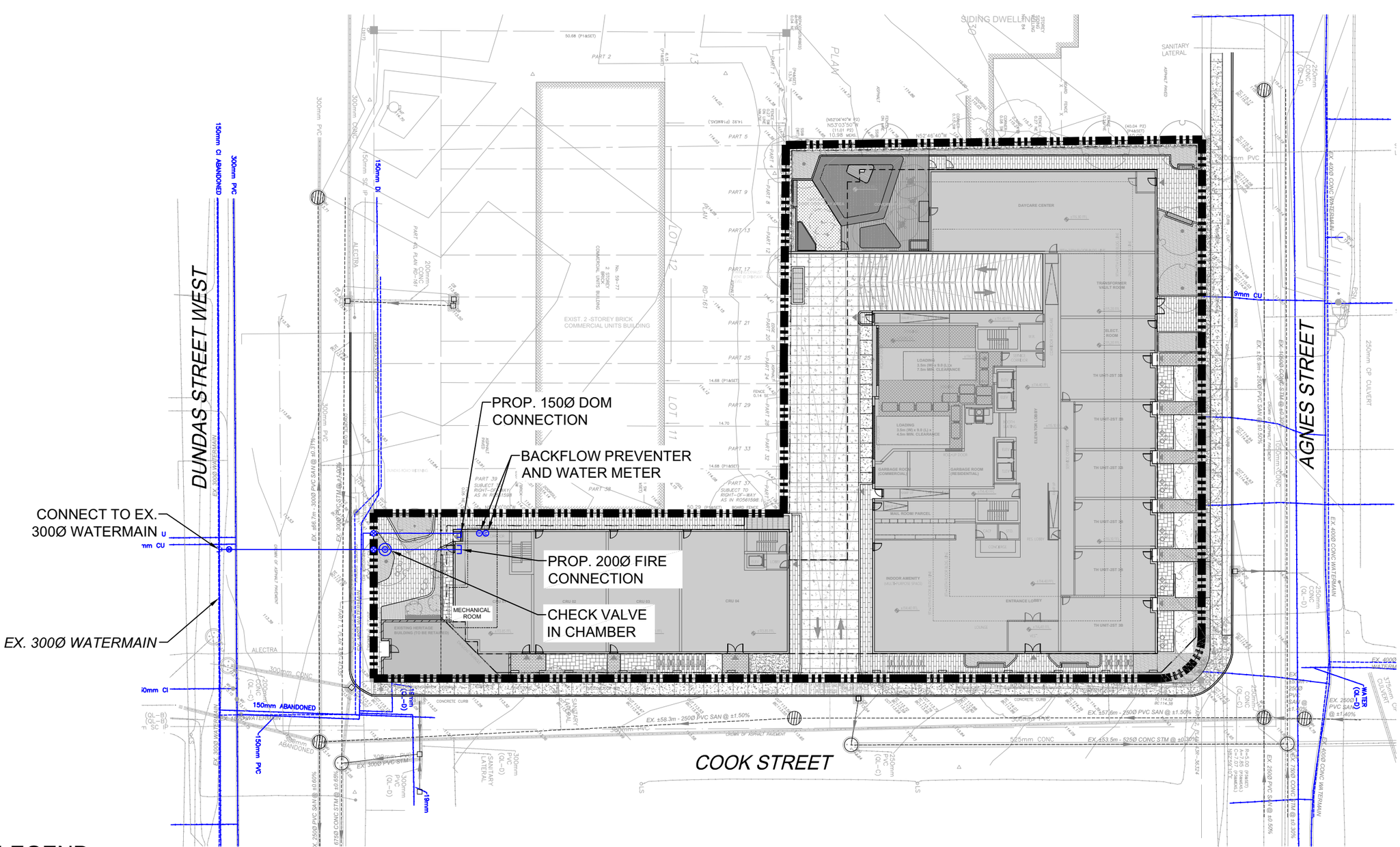
The water service connections within the municipal rights-of-way will be designed to Region of Peel standards and the water services within the proposed building will be designed by the Site mechanical consultant to meet Ontario Plumbing Code Standards. The proposed water servicing and the hydrant locations are shown on Figure 4.

3.3. HYDRANT FLOW TEST

The required fire flow demand for the proposed development was calculated to be 200 L/s (3,170USGPM) as defined by the Fire Underwriters Survey (FUS). The maximum day demand for the proposed development is 9.83 L/s. Therefore, the total maximum day plus fire flow demand is 209.83 L/s for the proposed development. Refer to Appendix B for FUS fire flow and detailed domestic demand calculations.

Hydrant flow tests were performed on the existing 300mm watermain on Dundas Street West and the existing 400mm watermain on Agnes Street on April 10, 2025 by L & D Waterworks Inc. to determine the available water supply for fire protection. Detailed results of the hydrant flow test are included in Appendix B. The flow test on the existing 300mm watermain on Dundas Street West indicates that a flow of 560 L/s (8,869 USGPM) could be achieved while maintaining a water pressure of 20psi (140kPa). The flow test on the existing 400mm watermain on Agnes Street indicates that a flow of 768 L/s (12,176 USGPM) could be achieved while maintaining a water pressure of 20psi (140kPa). Therefore, the existing 300mm watermain on Dundas Street West has sufficient capacity to provide the required fire protection for the proposed development.

It is our understanding that the Region of Peel will use the multi-use demand table appended to this report to confirm using their water model that water supply will be available to meet the estimated demand from the proposed development. The multi-use demand table for the Site has been included in Appendix D.



LEGEND

- LIMIT OF PROPERTY
- EX. WATERMAIN
- PROP. W/M CONNECTION
- PROP. VALVE & CHAMBER
- PROP. VALVE & BOX

CLIENT
55 DUNDAS DEVELOPMENT LTD.
(D-STILLWATERS DEVELOPMENTS INC.)

TITLE
51-55 DUNDAS STREET WEST & 60-78 AGNES STREET

WATER SERVICING PLAN

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Checked D.A.	Drawn J.Z.
Date 24-0878	Proj. No. AUG 2025
Scale 1: 500	Figure No. 4

4. SANITARY SERVICING

4.1. EXISTING CONDITIONS

EnVision has obtained record engineering drawings from the Region of Peel for the area surrounding the Site. Under existing conditions, there is a 250mm polyresin sanitary sewer draining east on Agnes Street, 300mm PVC sanitary sewers draining south on Cook Street and 300mm PVC sanitary sewers draining west on Dundas Street West adjacent to the Site.

4.2. SANITARY FLOWS

4.2.1. DESIGN PARAMETERS

To calculate the peak sanitary flows, the following Region of Peel design criteria have been utilized:

- 290 L/cap/day average daily flow for residential use;
- 270 L/ha/day average daily flow for ICI use;
- Population equivalent based on unit type for residential use:
  - 4.2 people per single detached dwelling
  - 1.7 people per studio and 1-bedroom apartment unit;
  - 3.1 people per 2-bedroom apartment unit;
  - 3.1 people per 3-bedroom apartment unit;
  - 2.7 people per unit for apartments greater than 475 persons per hectare
- Commercial use population equivalent: 50 persons/ha
- Peaking Factor for residential use: Harmon Formula M = 1+(14/√(4+P/1000))
- Inflow/Infiltration Allowance: 0.26 L/s/ha

An estimate of the pre- and post-development sanitary sewage flows has been calculated and is included in Appendix C. The results of the calculations are discussed in Sections 4.2.2 and 4.2.3.

4.2.2. EXISTING SEWAGE FLOWS

The Site consists of residential, commercial and institutional buildings under existing conditions. The existing buildings have their sanitary flows directed to the existing 250mm Agnes Street sanitary sewer and 300mm Cook Street sanitary sewer which both ultimately convey flows to the 300mm Dundas Street West sewer. An estimate of the pre-development sanitary sewage flows from the Site to the downstream sanitary sewer system has been calculated using the Region of Peel Design Criteria:

- Average Sanitary Flow = 0.20 L/s (including Inflow/Infiltration allowance)
- Peak Sanitary Flow = 0.47 L/s (including Inflow/Infiltration allowance)

Detailed calculations of the pre-development flows are included in Appendix C.

4.2.3. POST-DEVELOPMENT SEWAGE FLOW

An estimate of the post-development sanitary sewage flows from the Site to the downstream sanitary sewer system has been calculated based on the development statistics provided by RA Lumbao Architects Inc. and has been calculated using the Region of Peel Design Criteria. The calculation results are summarized in Table 4-1. Refer to Appendix C for post-development sanitary flow calculations.

Table 4-1: Estimated Sanitary Flows

CRITERION	INFORMATION
RESIDENTIAL SANITARY DEMAND RATE	290 L/person/day
TOTAL RESIDENTIAL UNITS	42 Studio Units 300 1-Bed Units 104 1-Bed + Den Units 75 2-Bed Units 28 2-Bed + Den Units 10 3-Bed Units
TOTAL RESIDENTIAL POPULATION	1511 people
ICI SANITARY GENERATION RATE	270 L/person/day
ICI GFA	1305 m^2
EQUIVALENT ICI POPULATION	8 people
PEAKING FACTORS	4.0 (Harmon Peaking Factor)
INFLOW / INFILTRATION ALLOWANCE	0.11 L/s
AVERAGE SANITARY FLOW FROM SITE	5.21 L/s
PEAK SANITARY FLOW FROM SITE	19.68 L/s

The approximate peak sanitary flow to the existing sanitary sewer system for the pre- and post-development conditions are 0.47 L/s and 19.68 L/s, respectively. Consequently, the increase in peak sanitary design flow resulting from the development to the sanitary sewer is 19.21L/s. An analysis of the impacts of the increase in peak sanitary flow contributions from the development on the downstream system was completed by EnVision and the results of the analysis are discussed further in Section 4.4. It is our understanding that the Region of Peel will use the multi-use demand table appended to this report to confirm using their sanitary infrastructure model that there will be sufficient capacity in the existing municipal sanitary sewer system to meet the estimated sanitary demand from the proposed development. The multi-use demand table for the Site has been included in Appendix D.

4.3. SANITARY SERVICING

The development will have one (1) 200mm diameter municipal sanitary service connection. Sanitary flows from the development will be discharged to the existing 300mm sanitary sewer on Dundas Street West. As per Region of Peel requirements, a control manhole is proposed to be placed immediately inside the

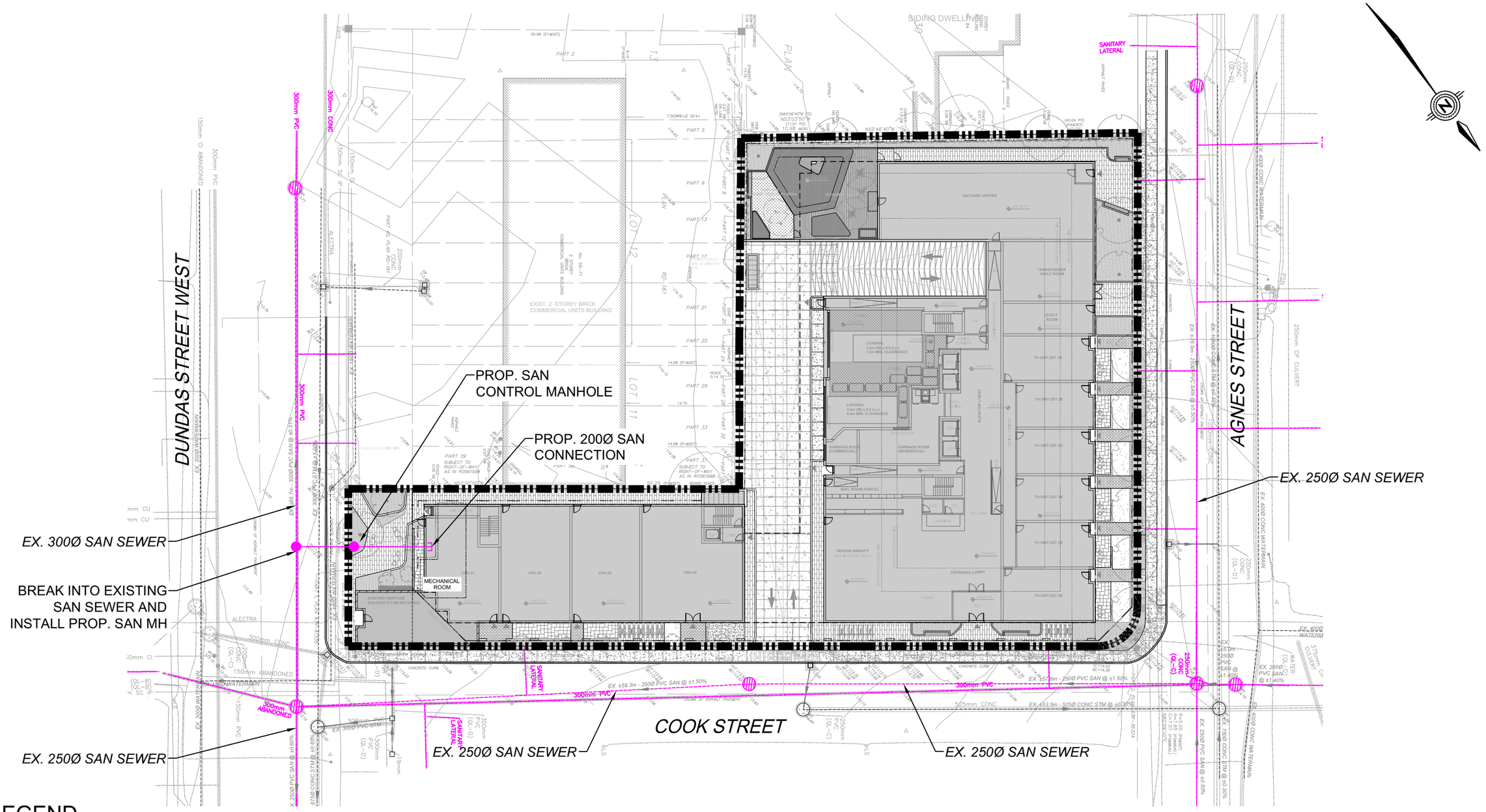
property line for the service connection. The sanitary service connection within the municipal right-of-way will be designed to Region of Peel standards and the sanitary services within the proposed building will be designed by the Site mechanical consultant to meet Ontario Plumbing Code Standards. The proposed sanitary servicing layout shown on Figure 5.

4.4. DOWNSTREAM SEWER CAPACITY ANALYSIS

EnVision has prepared pre- and post-development downstream sanitary sewer analysis up to the existing 750mm trunk sewer at the intersection of Floradale Drive and Paisley Boulevard West to assess the impacts of the sanitary demand from the development on the existing receiving sanitary sewer system. The sanitary flows for the sewershed was calculated using the Region of Peel Linear Wastewater Design Manual criteria as outlined in Section 4.2.1. An Inflow/Infiltration allowance of 0.26 L/s/ha has also been included in the analysis. See Appendix C for the Sanitary Sewer Design Sheets. Sanitary Drainage Area figures have been created to facilitate this analysis and are included in Appendix C.

A development application has been submitted for the property located at 65 – 71 Agnes Street. The post-development sanitary flow from this development, calculated based on the Region of Peel design Criteria and site statistics identified in the most recent development application has been included in the pre- and post-development downstream sanitary sewer analysis for the purpose of analyzing the receiving sewer capacity.

Based on the analysis of the contributing flows to the downstream sanitary sewer system up to the 750mm trunk sewer on Paisley Boulevard West, it was determined that the net increase in sanitary flows of 19.21L/s generated by the proposed development does not result in surcharging in the downstream sanitary sewer system. Therefore, it can be concluded that the downstream sanitary sewers will have adequate capacity to accommodate the additional sanitary flows from the development. It is our understanding that the Region of Peel will use the multi-use demand table appended to this report to confirm using their sanitary infrastructure model that there will be sufficient capacity in the existing municipal sanitary sewer system to meet the estimated sanitary demand from the proposed development. The multi-use demand table for the Site has been included in Appendix D.



LEGEND

- LIMIT OF PROPERTY
- EX. SANITARY SEWER
- PROP. SAN CONNECTION

CLIENT
55 DUNDAS DEVELOPMENT LTD.
(D-STILLWATERS DEVELOPMENTS INC.)

TITLE
51-55 DUNDAS STREET WEST & 60-78 AGNES STREET

SANITARY SERVICING PLAN

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Scale 1: 500	Figure No. 5

5. STORM DRAINAGE

5.1. STORMWATER MANAGEMENT REPORT

A Stormwater Management (SWM) Report outlining the proposed stormwater quality and quantity controls has been prepared under separate cover by EnVision Consultants Ltd., dated August 1, 2025. The SWM Report is in compliance with MECP Stormwater Management Planning and Design Manual (2003), TRCA Stormwater Management Criteria (August 2012), the Region of Peel Public Works Stormwater Design Criteria and Procedural Manual (June 2019) and the City of Mississauga Storm Drainage Design Requirements and identifies the stormwater quantity and quality controls under which this Site will operate.

5.2. EXISTING CONDITIONS

The Site is located within the Cooksville Creek subwatershed. Based on City record drawings, there is a 300mm storm sewer and a 675mm storm sewer on the north side of Dundas Street West which drain east towards Hurontario Street, a 1050mm storm sewer on the north side of Agnes Street which drains west towards Confederation Parkway, a 300mm storm sewer on the east side of Cook Street which drains south towards the 675mm Dundas Street West storm sewer, and a 525mm storm sewer which drains north towards the 1050mm Agnes Street storm sewer.

Under existing conditions, a portion of the Site runoff drains to Cook Street while runoff from the remainder of the Site is directed to Agnes Street.

5.3. PROPOSED MINOR STORM DRAINAGE SYSTEM

All storm flows within the development will be collected by an internal storm drainage system and directed to a proposed cistern located on the underground "P1" parking level adjacent to Cook Street. The cistern will be designed to hold a volume of 241 m^3. The cistern is sized to control flows up to the 100-year storm event to the 2-year pre-development level per City of Mississauga requirements. A proposed 200mm storm service connection will be made from the cistern to the existing 525mm storm sewer on Cook Street which drains north towards Agnes Street. A mechanical pump system will be used to control flows from the chamber to the allowable release rate of 5.0 L/s. The allowable release rate is such that for all storm events up to the 100-year storm, the total storm outflow from the Site is reduced to the 2-year pre-development level to conform with City of Mississauga requirements. The chamber will have an access hatch accessible at grade which will act as an emergency overflow in case of system failure. As per City requirements, a storm control manhole will be placed immediately inside the property line and will be accessible by the City.

To meet water quality criteria, an Oil-Grit Separator (EFO4) quality control unit is proposed to treat storm flows to achieve an 80% TSS removal rate in accordance with the City of Mississauga stormwater management criteria. A sump volume of 18 m^3 will be provided within the cistern for stormwater to be retained, infiltrated and/or reused on-site for the water balance requirement.

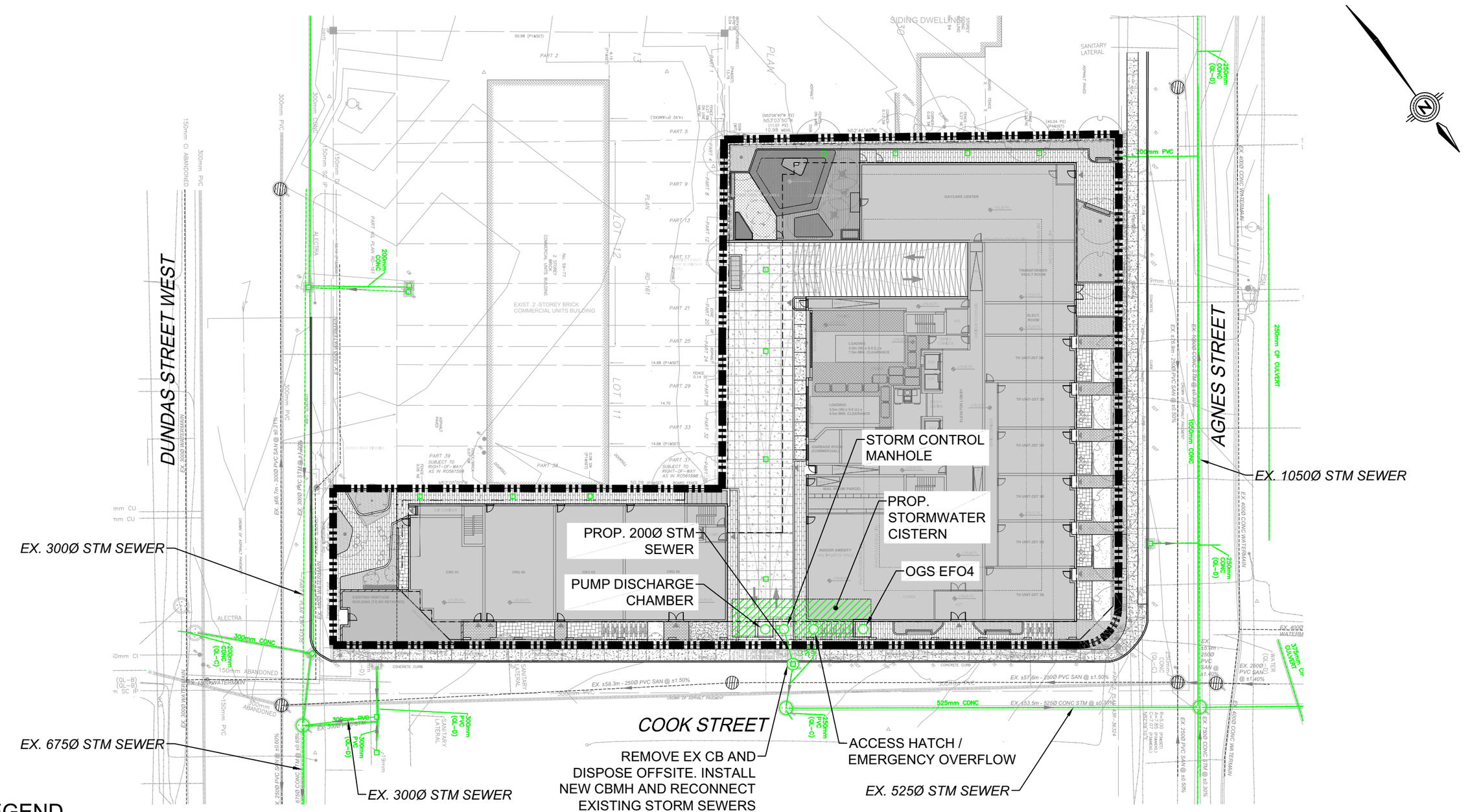
Since all storm flows up to the 100-year storm event will be reduced to the 2-year pre-development level, it can therefore be concluded that the existing storm sewer system will not be adversely affected under the post-development condition and will have adequate capacity to support flows from the proposed development. For further information on the stormwater management system being used or this Site, please see the Stormwater Management Report prepared by EnVision under a separate cover.

The storm service connection within the municipal right-of-way will be designed to City of Mississauga standards and the storm services within the proposed parking structure will be designed by the Site mechanical consultant to meet Ontario Plumbing Code Standards. The proposed storm servicing layout is shown on Figure 6.

5.4. PROPOSED MAJOR STORM DRAINAGE SYSTEM

The major storm system is a conveyance system for flows in excess of the minor system flows. Stormwater runoff from events up to and including the 100-year storm event will be contained on-site via an underground cistern and released at a controlled rate within the allowable post development limits to the minor storm system. For major storm events exceeding the 100-year storm and the capacity of the underground storage system, overland flow routes will be provided to direct excess flows to the adjacent municipal rights-of-way.

For the development of the Site, the grading design will be prepared such that the surface (i.e. drive aisles, walkways and landscaped areas) grades will direct surface drainage away from the building to the adjoining municipal rights-of-way. The proposed grading of the Site will ensure that existing grade elevations will be met along the property limits. The plumbing system for the building will be coordinated with the mechanical consultant to ensure that they are designed to convey the 100-year storm event runoff from the development. For major storm events exceeding the 100-year storm event and the capacity of the cistern, an overflow will be designed to direct excess flows to grade and ultimately to the adjacent public rights-of-way.



LEGEND

- LIMIT OF PROPERTY
- EX. STORM SEWER
- PROP. STORM SEWER
- PROP. STORM SINGLE/DOUBLE CATCH BASIN
- PROP. STORM MH

CLIENT	55 DUNDAS DEVELOPMENT LTD. (D-STILLWATERS DEVELOPMENTS INC.)
TITLE	51-55 DUNDAS STREET WEST & 60-78 AGNES STREET
	STORM SERVICING PLAN

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E-mail admin@envisionconsultants.ca

Checked	D.A.	Drawn	J.Z.
Date	24-0878	Proj. No.	AUG 2025
Scale	1: 500	Figure No.	6

6. SITE GRADING

Under existing conditions, the Site generally slopes from north to south. Existing elevations within the Site generally range from 113.0 masl to 115.7 masl.

The grading design of the proposed development will direct storm runoff to the on-site collection points so that the drainage is self-contained. The grading design will comply with the City of Mississauga standards and will be designed to achieve the following:

- Maintain existing perimeter grades so that there is no impact to adjacent properties;
- Optimize earthworks i.e. minimize the quantity of deficit materials to be imported or exported;
- Minimize disruption to existing municipal rights-of-way containing existing utilities and services;
- Promote drainage to the minor storm sewer system and accommodate stormwater management requirements;
- Provide adequate cover for underground services;
- Provide safe overland conveyance of flows exceeding the capacity of the storm sewer system through ponding;
- Satisfy the City's requirement for maximum 0.25m of stormwater ponding; and
- Building floor level will be set to avoid building / property damage during all design storms.

The proposed grading for the Site will, where possible, generally follow the existing grades to maintain drainage patterns and match boundary grades. Minor storm drainage is to be conveyed towards catchbasins that convey flows to the internal storm sewer network which discharges to the existing 300mm storm sewer on Cook Street. Overland flow routes are provided to direct major storm drainage away from proposed and existing structures towards the Dundas Street West, Cook Street and Agnes Street rights-of-way.

A retaining wall is proposed along the western and eastern development limits to ensure that drainage is contained within the Site. Retaining walls above 1.0m in height will be designed by a Structural Engineer in accordance with City standards.

At-grade surfaces will be designed with a minimum grade of 1.0%. Where surface ponding is proposed, the maximum ponding will be limited to 0.25m.

Coordination with the landscape consultant and mechanical consultant will be necessary to ensure grading initiatives support stormwater management and landscape objectives and provided sufficient cover above the sewers within the Site.

7. CLOSING

7.1. CONCLUSIONS AND RECOMMENDATIONS

Based on the information obtained through functional servicing assessment, EnVision presents the following conclusions and recommendations.

7.1.1. WATER SERVICING

The Site will be serviced by the 300mm Zone 2 watermain on Dundas Street West. The proposed building will have one (1) 150mm domestic water service connection and one (1) 200mm fire water service connection. The results of the hydrant flow tests performed by L & D Waterworks in April 2025 indicate that there is sufficient water supply in the municipal watermain system to meet the demands of the proposed development.

The water service connections within the municipal right-of-way will be designed to Region of Peel standards while the water services within the proposed building are to be designed by the Site mechanical consultant per OBC, and coordinated with EnVision.

7.1.2. SANITARY SERVICING

The proposed building will have one (1) 200mm sanitary service connection which will discharge flows to the existing 300mm sanitary sewer on Dundas Street West. Based on the analysis of the contributing flows to the downstream sanitary sewer system up to the 750mm trunk sanitary sewer on Paisley Boulevard West, it was determined that the net increase in sanitary flows of 19.21 L/s generated by the proposed development does not result in surcharging in the downstream sanitary sewer system. Therefore, it can be concluded that the downstream sanitary sewers will have adequate capacity to accommodate the additional sanitary flows from the development.

The sanitary service connection within the municipal right-of-way will be designed to Region of Peel standards while the sanitary services within the proposed building are to be designed by the Site mechanical consultant per OBC, and coordinated with EnVision.

7.1.3. STORM SERVICING

The proposed development storm flows, up to the 100-year storm event, will be attenuated to the allowable levels using an underground stormwater cistern. In compliance with City of Mississauga guidelines, the total storm flow rate of discharge from the Site under post-development conditions will be reduced to the 2-year pre-development level. Therefore, the existing storm sewer system will not be adversely affected under the post-development condition and will have adequate capacity to support flows from the proposed development. For major storm events exceeding the 100-year storm event, the Site will be graded to direct surface runoff away from the proposed building, and towards the adjoining public rights-of-way.

One (1) 200mm storm service connection will be provided from the Site to the existing 525mm storm sewer on Cook Street. The storm service connection within the municipal right-of-way will be designed to

City of Mississauga standards while the storm services within the proposed building are to be designed by the Site mechanical consultant per OBC, and coordinated with EnVision.

A separate Stormwater Management Report has been prepared by EnVision under a separate cover to address requirements concerning stormwater management.

7.2. CERTIFICATION AND SIGNATURES

Prepared by

Dabi Abikoye, P.Eng.
Senior Project Engineer

dabikoye@envisionconsultants.ca

Reviewed by

Alex Williams, P.Eng.
Director – Land Development

awilliams@envisionconsultants.ca

7.3. QUALIFIER

EnVision prepared this report solely for the use of the intended recipient in accordance with the professional services agreement. In the event a contract has not been executed, the parties agree that the EnVision General Terms and Conditions, which were provided prior to the preparation of this report, shall govern their business relationship.

The report is intended to be used in its entirety. No excerpts may be taken to be representative of the findings in the assessment. The conclusions presented in this report are based on work performed by trained, professional and technical staff, in accordance with their reasonable interpretation of current and accepted engineering and scientific practices at the time the work was performed.

The content and opinions contained in the report are based on the observations and/or information available to EnVision at the time of preparation, using investigation techniques and engineering analysis methods consistent with those ordinarily exercised by EnVision and other engineering/scientific practitioners working under similar conditions, and subject to the same time, financial and physical constraints applicable to this project.

EnVision disclaims any obligation to update this report if, after the date of this report, any conditions appear to differ significantly from those presented in this report; however, EnVision reserves the right to amend or supplement this report based on additional information, documentation or evidence.

EnVision makes no other representations whatsoever concerning the legal significance of its findings. The intended recipient is solely responsible for the disclosure of any information contained in this report. If a third party makes use of, relies on, or makes decisions in accordance with this report, said third party is solely responsible for such use, reliance or decisions. EnVision does not accept responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken by said third party based on this report.

EnVision has provided services to the intended recipient in accordance with the professional services agreement between the parties and in a manner consistent with that degree of care, skill and diligence normally provided by members of the same profession performing the same or comparable services in respect of projects of a similar nature in similar circumstances. It is understood and agreed by EnVision and the recipient of this report that EnVision provides no warranty, express or implied, of any kind. Without limiting the generality of the foregoing, it is agreed and understood by EnVision and the recipient of this report that EnVision makes no representation or warranty whatsoever as to the sufficiency of its scope of work for the purpose sought by the recipient of this report.

In preparing this report, EnVision has relied in good faith on information provided by others, as noted in the report. EnVision has reasonably assumed that the information provided is correct and EnVision is not responsible for the accuracy or completeness of such information.

Unless otherwise agreed in writing by EnVision, the Report shall not be used to express or imply warranty as to the suitability of the site for a particular purpose. EnVision disclaims any responsibility for consequential financial effects on transactions or property values, or requirements for follow-up actions /or costs.

This limitations statement is considered an integral part of this report.

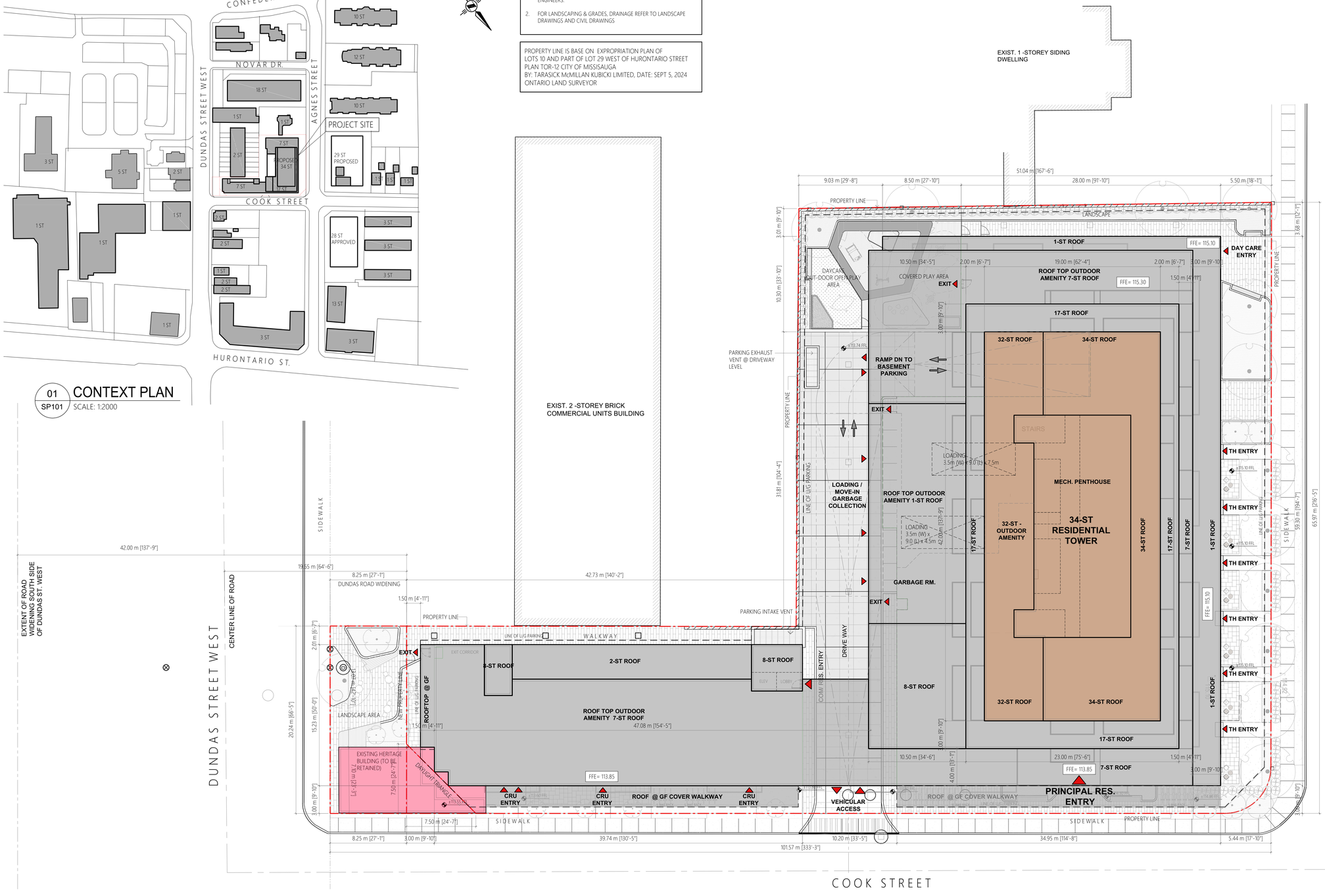
APPENDIX A:

Site Plan, Topographic Survey and Subsurface Utility Investigation

01 SP101 **CONTEXT PLAN**
SCALE: 1:2000

GENERAL NOTES:
1. FIRE HYDRANTS TO BE LOCATED WITHIN 90 M OF ALL POINTS OF BUILDING FACADE FACING COOK ST. AND WITHIN 45 M OF FIRE DEPARTMENT CONNECTIONS FIRE HYDRANTS TO BE LOCATED BY SIDE SERVICES AND FIRE PROTECTION AND FIRE PROTECTION ENGINEERS.
2. FOR LANDSCAPING & GRADES, DRAINAGE REFER TO LANDSCAPE DRAWINGS AND CIVIL DRAWINGS

PROPERTY LINE IS BASE ON EXPROPRIATION PLAN OF LOTS 10 AND PART OF LOT 29 WEST OF HURONTARIO STREET PLAN TOR-12 CITY OF MISSISAUGA
BY: TARASICK McMILLAN KUBICKI LIMITED, DATE: SEPT 5, 2024
ONTARIO LAND SURVEYOR



02 A102 **CONCEPT SITE PLAN**
SCALE: 1: 200

RA LUMBAO ARCHITECTS INC.
ARCHITECTS . CONSULTANTS . DESIGNERS
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SEAL

CONSULTANT

Rev	Issued For	Date	Initials
0	DARC SUBMISSION	2024-10-07	MP
1	DARC RESUBMISSION	2025-02-02	MP
2	ZBLA/ OPA COORDINATION	2025-07-16	MP

CLIENT

D-STILLWATERS DEVELOPMENTS INC. OA BLUEKRESCENT DEV.

Project North *True North*

PROJECT TITLE:

Mixed Use Condo Development

51-55 Dundas St.W.,60-70 Agnes St, Mississauga, ON L5B 1J7

PROJECT NO. **24018**

DRAWING ISSUE:

ZBLA/ OPA COORDINATION

DRAWING TITLE:

CONCEPT SITE PLAN

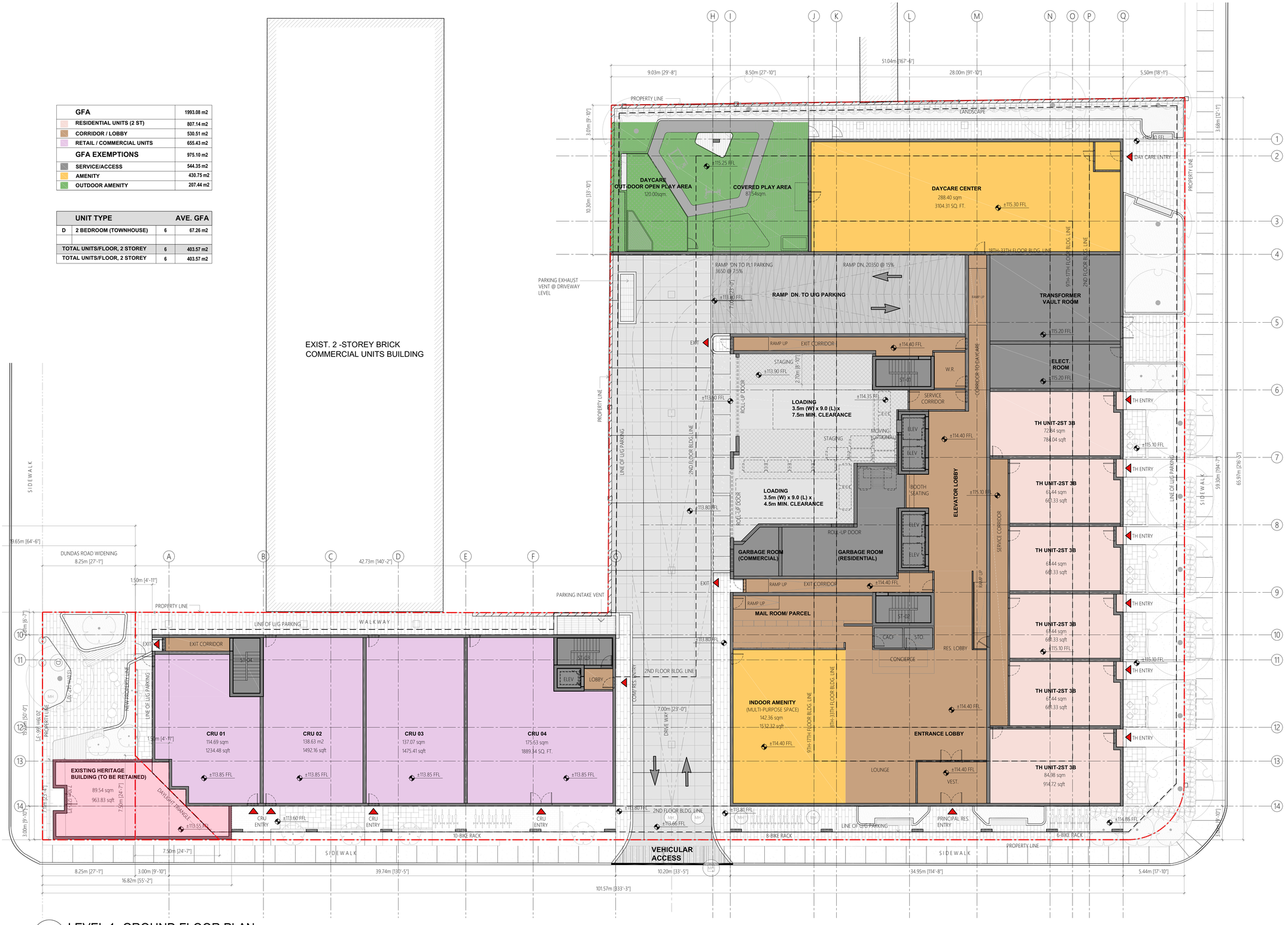
Drawn By	RD	Scale
Checked By	RL	As Indicated
Plot Date	2025-07-16	

SHEET NO. **SP101** REVISION

	GFA	1993.08 m2
	RESIDENTIAL UNITS (2 ST)	807.14 m2
	CORRIDOR / LOBBY	530.51 m2
	RETAIL / COMMERCIAL UNITS	655.43 m2
	GFA EXEMPTIONS	975.10 m2
	SERVICE/ACCESS	544.35 m2
	AMENITY	430.75 m2
	OUTDOOR AMENITY	207.44 m2

	UNIT TYPE		AVE. GFA
D	2 BEDROOM (TOWNHOUSE)	6	67.26 m2
TOTAL UNITS/FLOOR, 2 STOREY		6	403.57 m2
TOTAL UNITS/FLOOR, 2 STOREY		6	403.57 m2

EXIST. 2 -STOREY BRICK
COMMERCIAL UNITS BUILDING



01 A102 LEVEL 1 -GROUND FLOOR PLAN
SCALE: 1:150

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DRAWING ISSUE:

ZBLA/ OPA COORDINATION

DRAWING TITLE:

LEVEL 1 - GROUND
FLOOR PLAN

Drawn By	RD	Scale
Checked By	RL	As Indicated
Plot Date	2025-07-16	

SHEET NO. **A102**

REVISION

BICYCLE PARKING RACK PROPOSAL - FROM NILUS ASSET ENTERPRISE CORP.

BICYCLE RACK TYPE - KOBI PLUS

BICYCLE RACK TYPE - FELIX

BICYCLE RACK TYPE - TERRA SLIDE

VEHICULAR TYPICAL PARKING DIMENSIONS

TYPICAL PARKING SPACE

TYPICAL OBSTRUCTED PARKING SPACE

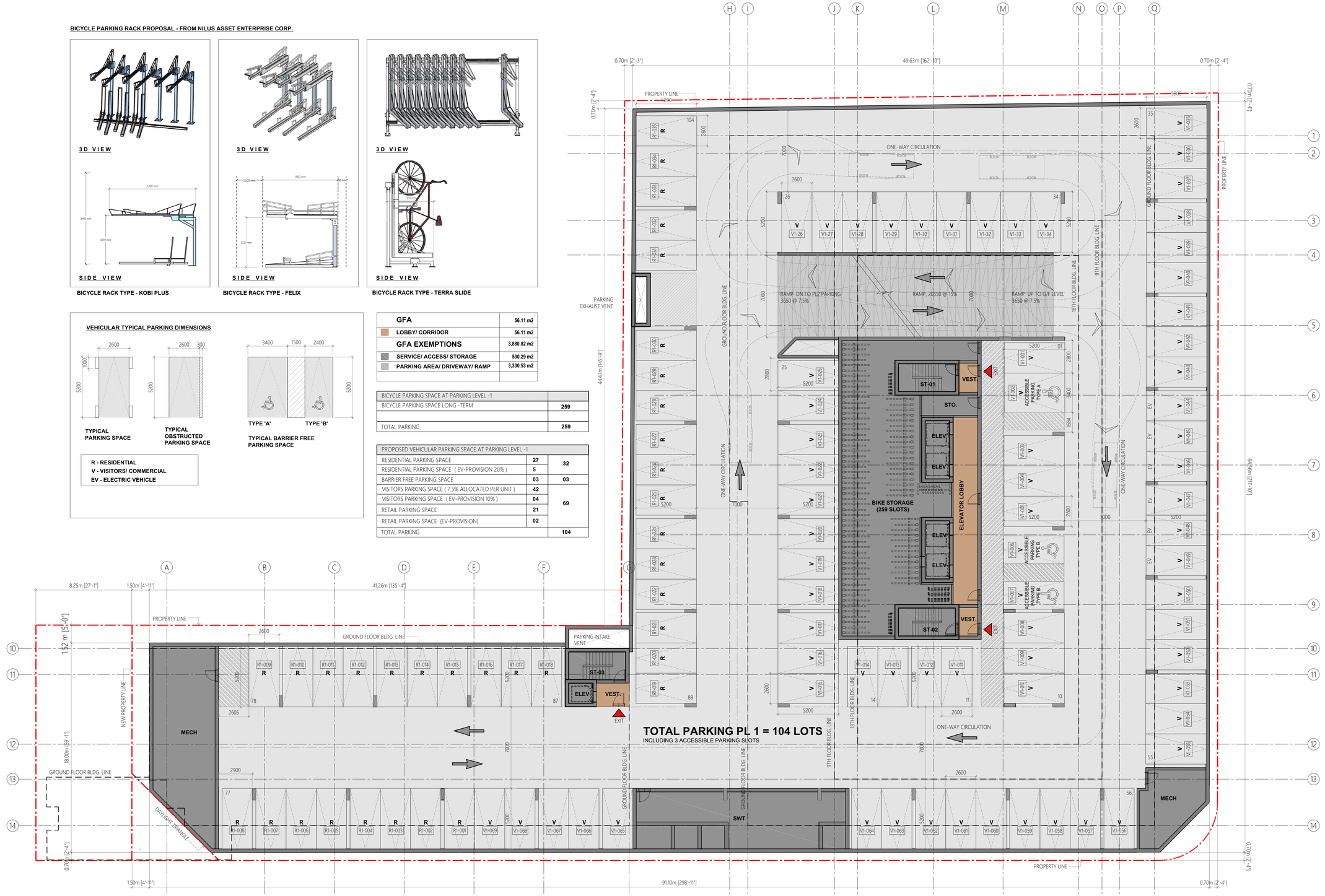
TYPICAL BARRIER FREE PARKING SPACE

R - RESIDENTIAL
V - VISITORS/ COMMERCIAL
EV - ELECTRIC VEHICLE

GFA	
LOBBY/ CORRIDOR	56.11 m2
GFA EXEMPTIONS	3,880.82 m2
SERVICE/ ACCESS/ STORAGE	530.29 m2
PARKING AREA/ DRIVEWAY/ RAMP	3,330.53 m2

BICYCLE PARKING SPACE AT PARKING LEVEL -1	
BICYCLE PARKING SPACE LONG -TERM	259
TOTAL PARKING	259

PROPOSED VEHICULAR PARKING SPACE AT PARKING LEVEL -1		
RESIDENTIAL PARKING SPACE	27	32
RESIDENTIAL PARKING SPACE (EV-PROVISION 20%)	5	
BARRIER FREE PARKING SPACE	03	03
VISITORS PARKING SPACE (7.5% ALLOCATED PER UNIT)	42	69
VISITORS PARKING SPACE (EV-PROVISION 10%)	04	
RETAIL PARKING SPACE	21	
RETAIL PARKING SPACE (EV-PROVISION)	02	
TOTAL PARKING		104



01 A101 UNDERGROUND PARKING LEVEL-1
SCALE: 1:150

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PROJECT NO. **24018**

DRAWING ISSUE:

ZBLA/ OPA COORDINATION

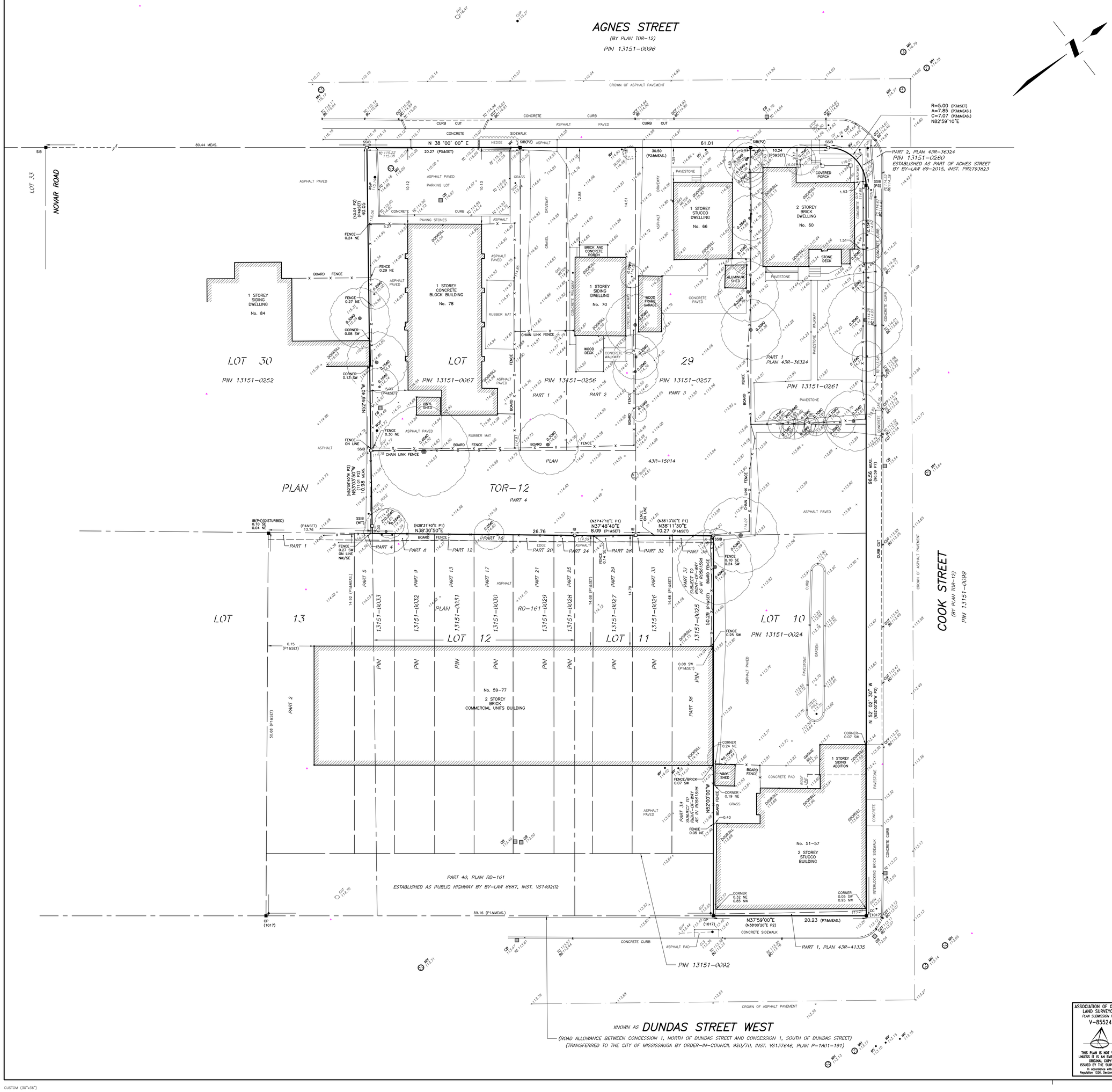
DRAWING TITLE:

UNDERGROUND PARKING LEVEL 1

Drawn By	RD	Scale
Checked By	RL	As Indicated
Plot Date	2025-07-16	

SHEET NO. **A101**

REVISION



PLAN OF SURVEY WITH TOPOGRAPHY OF

LOT 10 AND PART OF LOT 29

WEST OF HURONTARIO STREET

PLAN TOR-12

CITY OF MISSISSAUGA

REGIONAL MUNICIPALITY OF PEEL

SCALE 1 : 200

5 0 5 10 metres

TARASICK McMILLAN KUBICKI LIMITED
ONTARIO LAND SURVEYORS

METRIC

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

ELEVATION NOTE

ELEVATIONS ARE REFERRED TO CANADIAN GEODETIC VERTICAL DATUM-1928, AND WERE DERIVED FROM CITY OF MISSISSAUGA BENCHMARK No. 894, HAVING A PUBLISHED ELEVATION OF 117.839 metres.

BEARING NOTE

BEARINGS ARE ASTRONOMIC AND ARE REFERRED TO THE SOUTHEASTERLY LIMIT OF AGNES STREET AS SHOWN ON PLAN 43R-15014, HAVING A BEARING OF N38°00'00"E.

LEGEND

■	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT PLANTED
IB	DENOTES	IRON BAR
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR
CC	DENOTES	CUT CROSS
CP	DENOTES	CONCRETE PIN
BC	DENOTES	BOTTOM OF CURB
CB	DENOTES	CATCH BASIN
CCT	DENOTES	CURB CUT
CLS	DENOTES	CONCRETE LIGHT STANDARD
CUP	DENOTES	CONCRETE UTILITY POLE
FHT	DENOTES	FIRE HYDRANT TOP
GUY	DENOTES	GUY ANCHOR WIRE
GV	DENOTES	GAS VALVE
MH	DENOTES	MANHOLE
TC	DENOTES	TOP OF CURB
WUP	DENOTES	WOOD UTILITY POLE
WV	DENOTES	WATER VALVE
P1	DENOTES	PLAN RD-161
P2	DENOTES	PLAN 43R-15014
P3	DENOTES	PLAN 43R-36324
P4	DENOTES	DUNNING & TAYLOR LTD., O.L.S., JULY 8, 1991
P5	DENOTES	TARASICK, McMILLAN LTD., O.L.S., MARCH 14, 2001
P7	DENOTES	PLAN 43R-41335
(1017)	DENOTES	CALLON DIETZ INC., O.L.S.
(WIT)	DENOTES	WITNESS

0.20ØD DENOTES DECIDUOUS TREE WITH TRUNK DIAMETER

0.20ØC DENOTES CONIFEROUS TREE WITH TRUNK DIAMETER

TREE CANOPIES ARE DRAWN TO SCALE.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON SEPTEMBER 5, 2024.

SEPTEMBER 5, 2024
DATE

BORYS KUBICKI
ONTARIO LAND SURVEYOR

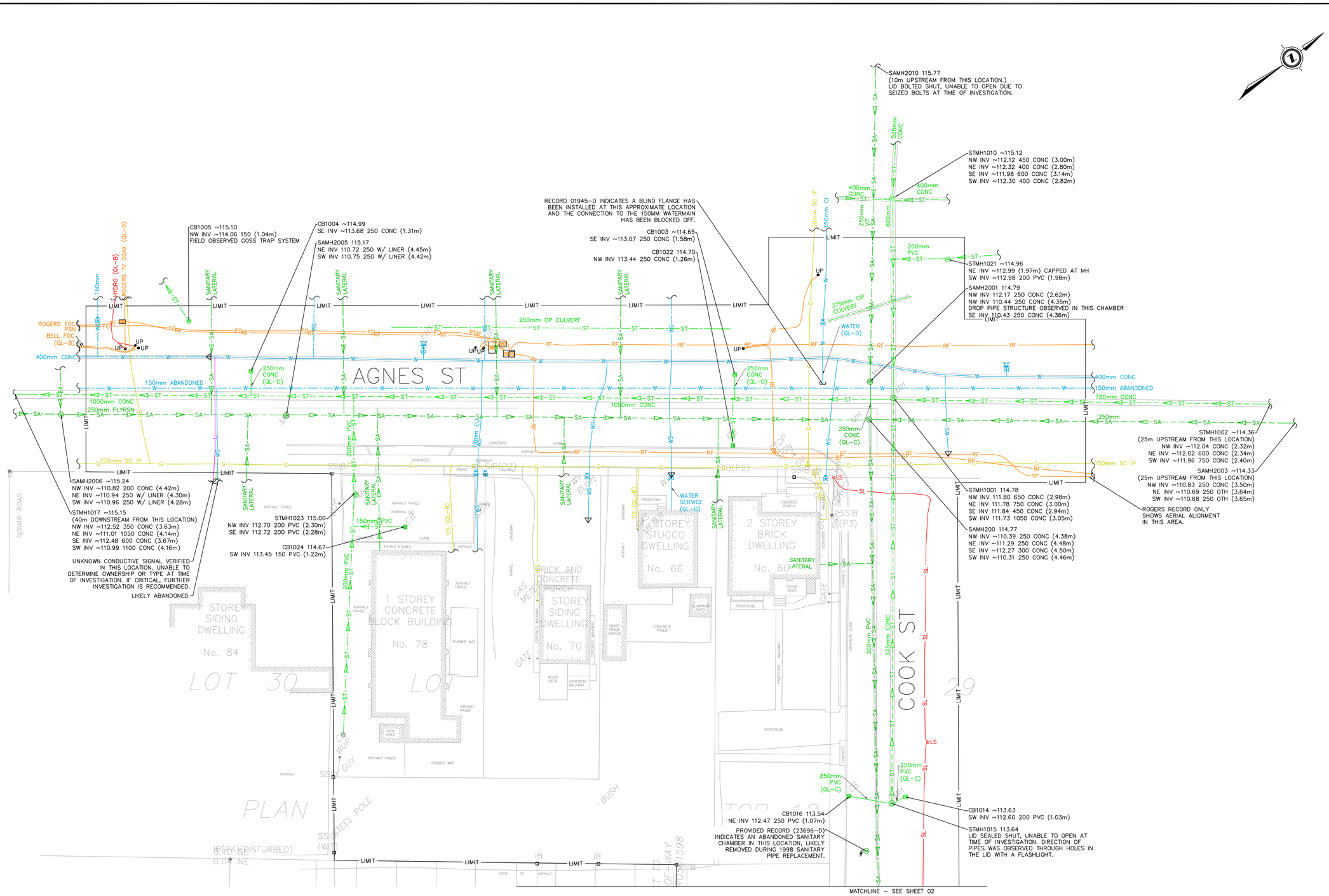
ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
V-85524

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR In accordance with Regulation 1026, Section 29(3)

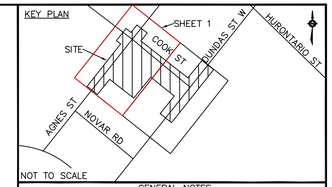
TARASICK McMILLAN KUBICKI LIMITED
ONTARIO LAND SURVEYORS
4181 SLADEVIEW CRESCENT, UNIT 42, MISSISSAUGA, ONTARIO L5L 5R2
TEL: (905) 569-8849 FAX: (905) 569-3160
E-MAIL: office@tmksurveyors.com

DRAWN BY: RE | FILE No. 10203-SRPR-T

CUSTOM (30"x36")



KEY PLAN



NOT TO SCALE

GENERAL NOTES

1. THE FIELD INVESTIGATION WAS COMPLETED IN APRIL 2025.
2. THE LIMITS OF THE INVESTIGATION AREA AS PER SHOWN ON THE DRAWING.
3. THE BASE PLAN FOR THIS DRAWING WAS PROVIDED BY THE CLIENT AND 4SIGHT IS NOT RESPONSIBLE FOR ITS ACCURACY.
4. UTILITY SIZES AND MATERIALS ARE SHOWN IF AVAILABLE FROM RECORD INFORMATION.
5. KNOWN UTILITY OWNERS IDENTIFIED WITHIN PUBLIC RIGHT OF WAY INCLUDE:
   a. WATER & SEWERS – REGION OF PEEL & CITY OF MISSISSAUGA
   b. ELECTRICAL – ALECTRA
   c. TELECOM – BELL, ROGERS, PSN
   d. GAS – ENBRIDGE
6. SEE PROJECT REPORT FOR ADDITIONAL DETAILS.

LEGEND:

B	BELL TELECOMMUNICATIONS
TV	ROGERS COAXIAL
C	PRIVATE COMMUNICATIONS
FO	FIBER OPTIC
BF	BELL FIBER OPTIC
RF	ROGERS FIBER OPTIC
CF	COGECO FIBER OPTIC
ZF	ZAYO FIBER OPTIC
H	HYDRO
SL	STREETLIGHT
TL	TRAFFIC LIGHT
E	PRIVATE ELECTRICAL
G	GAS
PL	PIPELINE
W	WATER
WS	WATER SERVICE
SA	SANITARY SEWER
FM	SANITARY FORCEMAIN
ST	STORM SEWER
U	UNKNOWN CONDUCTIVE SIGNAL
	QUALITY LEVEL "B"
	QUALITY LEVEL "C"
	QUALITY LEVEL "D"
LIMIT	LIMIT OF INVESTIGATION
	CONTINUES OUT OF LIMITS
	FLOW ARROW
[	END CAP
#	LOCATION BASED ON RECORD INFO
*	LOCATION BASED ON FIELD OBSERVATION
	LOSS OF SIGNAL
	STORM MAINTENANCE HOLE
	SANITARY MAINTENANCE HOLE
	CATCH BASIN
	WATER CHAMBER
	FIRE HYDRANT
	WATER VALVE
	GAS VALVE
UP	UTILITY POLE
LS	LIGHT STANDARD
HW	HAND WELL
	HYDRO MAINTENANCE HOLE
	HYDRO VAULT / TRANSFORMER
	TELECOM PEDESTAL
	FLUSH-TO-GRADE
	BELL MAINTENANCE HOLE
	ROGERS MAINTENANCE HOLE
	UNKNOWN MAINTENANCE HOLE

ASCE QUALITY LEVELS

THE UTILITY INFORMATION SHOWN ON THIS DRAWING WAS COLLECTED IN ACCORDANCE TO ASCE STANDARD 38-22. THE INFORMATION IS SHOWN BY QUALITY LEVEL WHICH INDICATES THE LEVEL OF EFFORT USED TO DETERMINE THE LOCATION OF THE DATA

INCREASED QUALITY

QUALITY LEVEL "D" – INFORMATION DERIVED FROM EXISTING RECORDS OR VERBAL RECOLLECTIONS.

QUALITY LEVEL "C" – INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGEMENT IN CORRELATING THIS INFORMATION TO THE QUALITY LEVEL "D" INFORMATION.

QUALITY LEVEL "B" – INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF THE UTILITIES.

QUALITY LEVEL "A" – PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITES OBTAINED BY THE ACTUAL EXPOSURE AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES.

PREPARED BY.

4SIGHT UTILITY ENGINEERS

REVISIONS

DISCLAIMER.

THIS DRAWING WAS PRODUCED BY 4SIGHT INC FOR THE USE OF THE CLIENT. 4SIGHT INC DOES NOT ACCEPT ANY RESPONSIBILITY FOR ANY UNAUTHORIZED USE BY THIRD PARTIES, OR ANY MODIFICATION MADE TO THIS DRAWING.

		DATE (MM/DD/YY)
DRAWN	R. WYRZYKOWSKI	04/24/25
CHECKED	S. RAVAL	05/09/25
APPROVED	C. LUKKA	05/13/25

SCALE 1:250 (0, 5, 10m)

THE ENGINEER'S SEAL HEREON IS TO CERTIFY THAT THE UTILITIES SHOWN HAVE BEEN INVESTIGATED IN ACCORDANCE WITH STANDARD SUE INDUSTRY PRACTICES. ALL OTHER INFORMATION HEREON HAS BEEN PROVIDED BY OTHERS AND IS NOT A PART OF THIS CERTIFICATION.

LICENSED PROFESSIONAL ENGINEER
C. A. LUKKA
100182823
25-0081
May 13, 2025
PROVINCE OF ONTARIO

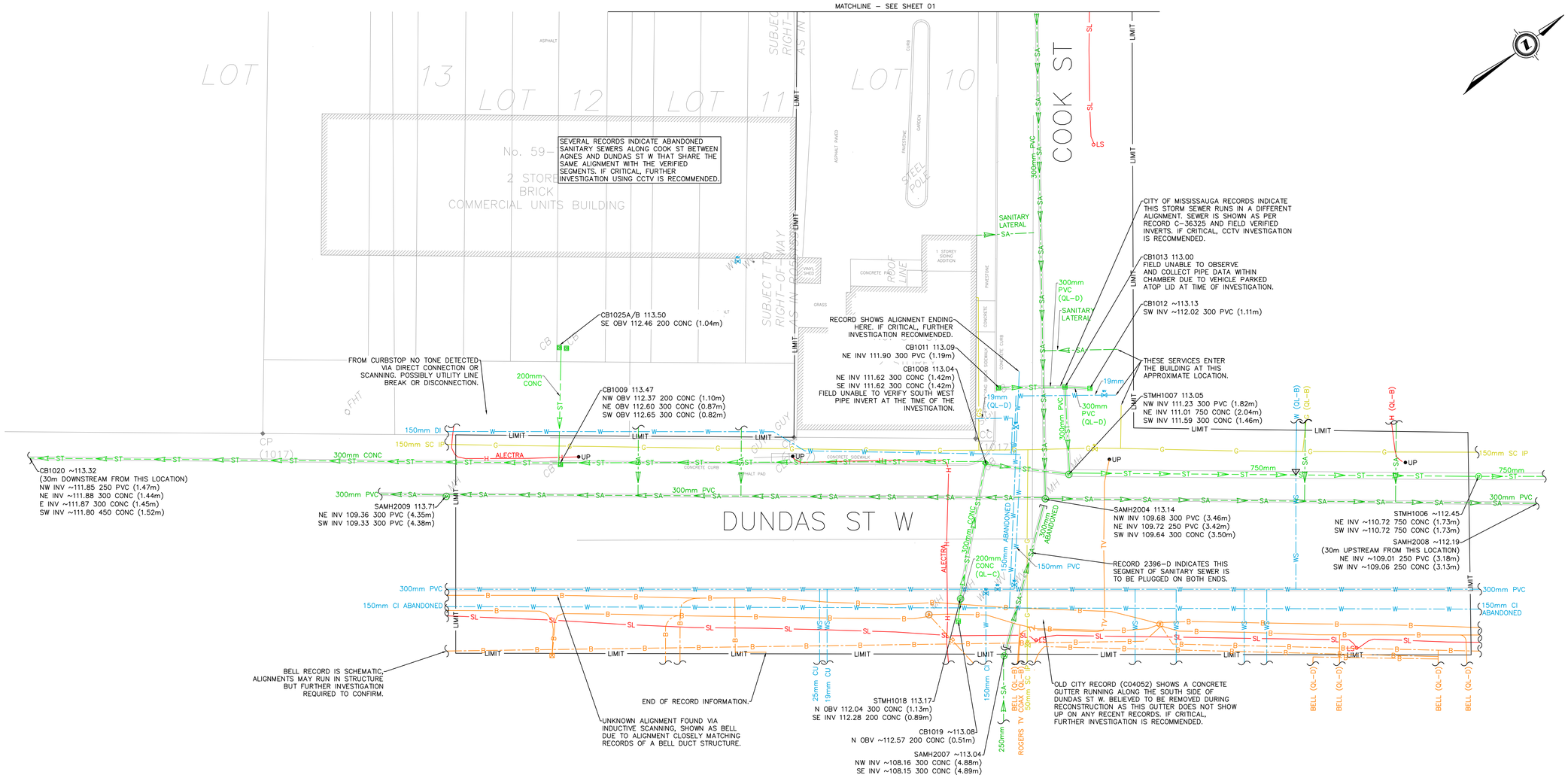
PROJECT.
55 DUNDAS STREET WEST

DRAWING.
SUBSURFACE UTILITY ENGINEERING INVESTIGATION

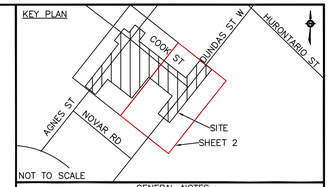
CLIENT.
ENVISION CONSULTANTS LTD.

PROJECT NO. 25-0081

SHEET NO. 01 OF 02



KEY PLAN



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   c. TELECOM – BELL, ROGERS, PSN
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6. SEE PROJECT REPORT FOR ADDITIONAL DETAILS.

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TV	ROGERS COAXIAL
C	PRIVATE COMMUNICATIONS
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SL	STREETLIGHT
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PL	PIPELINE
W	WATER
WS	WATER SERVICE
SA	SANITARY SEWER
FM	SANITARY FORCEMAIN
ST	STORM SEWER
U	UNKNOWN CONDUCTIVE SIGNAL
	QUALITY LEVEL "B"
	QUALITY LEVEL "C"
	QUALITY LEVEL "D"
LIMIT	LIMIT OF INVESTIGATION
)	CONTINUES OUT OF LIMITS
	FLOW ARROW
[	END CAP
#	LOCATION BASED ON RECORD INFO
*	LOCATION BASED ON FIELD OBSERVATION
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	SANITARY MAINTENANCE HOLE
	CATCH BASIN
	WATER CHAMBER
	FIRE HYDRANT
	WATER VALVE
	GAS VALVE
UP	UTILITY POLE
LS	LIGHT STANDARD
HW	HAND WELL
	HYDRO MAINTENANCE HOLE
	HYDRO VAULT / TRANSFORMER
	TELECOM PEDESTAL
	FLUSH-TO-GRADE
	BELL MAINTENANCE HOLE
	ROGERS MAINTENANCE HOLE
	UNKNOWN MAINTENANCE HOLE

ASCE QUALITY LEVELS

THE UTILITY INFORMATION SHOWN ON THIS DRAWING WAS COLLECTED IN ACCORDANCE TO ASCE STANDARD 38-22. THE INFORMATION IS SHOWN BY QUALITY LEVEL WHICH INDICATES THE LEVEL OF EFFORT USED TO DETERMINE THE LOCATION OF THE DATA

INCREASED QUALITY

QUALITY LEVEL "D" – INFORMATION DERIVED FROM EXISTING RECORDS OR VERBAL RECOLLECTIONS.

QUALITY LEVEL "C" – INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGEMENT IN CORRELATING THIS INFORMATION TO THE QUALITY LEVEL "D" INFORMATION.

QUALITY LEVEL "B" – INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF THE UTILITIES.

QUALITY LEVEL "A" – PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITES OBTAINED BY THE ACTUAL EXPOSURE AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES.

PREPARED BY. 4SIGHT UTILITY ENGINEERS

REVISIONS

DISCLAIMER.

THIS DRAWING WAS PRODUCED BY 4SIGHT INC FOR THE USE OF THE CLIENT. 4SIGHT INC DOES NOT ACCEPT ANY RESPONSIBILITY FOR ANY UNAUTHORIZED USE BY THIRD PARTIES, OR ANY MODIFICATION MADE TO THIS DRAWING.

		DATE (MM/DD/YY)
DRAWN	R. WYRZYKOWSKI	04/24/25
CHECKED	S. RAVAL	05/09/25
APPROVED	C. LUKKA	05/13/25

SCALE 1:250 (0 5 10m)

THE ENGINEER'S SEAL HEREON IS TO CERTIFY THAT THE UTILITIES SHOWN HAVE BEEN INVESTIGATED IN ACCORDANCE WITH STANDARD SUE INDUSTRY PRACTICES. ALL OTHER INFORMATION HEREON HAS BEEN PROVIDED BY OTHERS AND IS NOT A PART OF THIS CERTIFICATION.

LICENSED PROFESSIONAL ENGINEER C. A. LUKKA 100182823 25-0081 May 13, 2025 PROVINCE OF ONTARIO

PROJECT. 55 DUNDAS STREET WEST

DRAWING. SUBSURFACE UTILITY ENGINEERING INVESTIGATION

CLIENT. ENVISION CONSULTANTS LTD.

PROJECT NO. 25-0081

SHEET NO. 02 OF 02

APPENDIX B:

Domestic Water Demand & Fire Flow Calculations

EnVision Consultants Ltd.
51-55 Dundas Street W & 60-78 Agnes Street
Project No.: 25-0878

Domestic Water Demand

Region of Peel

2025-07-30
Designed: D.A.
Checked: A.W.

Proposed Flows

Land Use	Site Area (ha)	Number of Residential Units	Gross Floor Area (ha)	Population Density		Equivalent Population (persons)	Average Daily Consumption Rate		Average Daily Demand (L/s)	Max Day Peaking Factor	Max Day Demand (L/s)	Max Hour Peaking Factor	Max Hour Demand (L/s)
Residential (Studio)	0.42	42	3.48	2.7	persons/unit	114	280	L/cap/day	0.37	2.0	0.74	3.0	1.11
Residential (1BR, 1BR+ Den)		404		2.7	persons/unit	1091	280	L/cap/day	3.54	2.0	7.07	3.0	10.61
Residential (2BR, 2BR + Den)		103		2.7	persons/unit	279	280	L/cap/day	0.90	2.0	1.81	3.0	2.71
Residential (3BR, 3BR + Den)		10		2.7	persons/unit	27	280	L/cap/day	0.09	2.0	0.18	3.0	0.26
Commercial & Office		-	0.10	50	persons/ha	6	300	L/employee/day	0.02	1.4	0.03	3.0	0.06
Daycare		-	0.03	50	persons/ha	2	270	L/cap/day	0.01	1.4	0.01	3.0	0.02
Dundas Street West- Road Widening Land Dedicatic	0.02	-	-	-	-	-	-	-	-	-	-	-	-
Total	0.44	559	3.61			1519			4.92		9.83		14.77

Notes:
1. Site statistics are based on the architectural site plan provided by Sajecki Planning datedJune 16, 2025.
2. Population densities and average daily flow generation rates are based on the guidelines outlined in the Region of Peel Public Works Watermain Design Criteria dated June 2010.
3. Residential population density of 2.7 ppu was considered, as the population equivalent is greater than 475 persons/ha per the Region's guidelines.
4. Retail, daycare and office spaces are considered to be Commercial land use.

Fire Flow Demand

EnVision Consultants Ltd. 2025-07-30

51-55 Dundas Street W & 60-78 Agnes Street Region of Peel Designed: D.A.

Project No.: 25-0878 Checked: A.W.

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

where RFF = Required Fire Flow (Lpm)

C = Construction Coefficient

A = Total Effective Floor Area (m2)

Section A - Building Construction Type

Construction Type = Type I Fire Resistance Construction

Therefore Construction Coeffecient, C = 0.6

Section B - Total Effective Floor Area

For structures with a Construction Coefficient value below 1.0 and protected vertical openings;

A = Total Effective Floor Area

= Largest Floor Area + 25% of Adjoining Floor Areas

= 2082.92+ 0.25(2082.92 + 2082.92)

= 6249 m2

Section C - Building Height in Storeys

34 storey

Section D - Base Required Fire Flow

RFF = Required Fire Flow

= 220 x C x √A

= 220 x 0.6 x √6249

= 10435 Lpm

Section E - Additions and Reductions to Required Fire Flow

Building Contents = Combustible

RFF Adjustment for Building Contents = 0%

Sprinkler System = Automatic Sprinkler System per NFPA 13

RFF Adjustment for Sprinkler System = -30%

North exposure distance =	35	m
South exposure distance =	22	m
East exposure distance =	14	m
West exposure distance =	3	m

RFF Adjustment for Building Exposure = 45%

Total RFF Adjustment = 15%

= 0.15 x 10435 Lpm

= 1565 Lpm

Section F - Required Fire Flow Calculation

RFF = Base RFF + Total RFF Adjustments

= 12000 Lpm

= 12000 Lpm

= 3166 US GPM

= 200 L/s

Notes:

1. Fire Flow Calculations per Water Supply for Public Fire Protection, 2020 by Fire Underwriters Survey.
2. Site statistics are based on the architectural site plan provided by Sajecki Planning dated June 16, 2025.

APPENDIX C:

Sanitary Demand Calculations & Sanitary Design Sheet

EnVision Consultants Ltd.
51-55 Dundas Street W & 60-78 Agnes Street
Project No.: 25-0878

Sanitary Flow Generation

Region of Peel

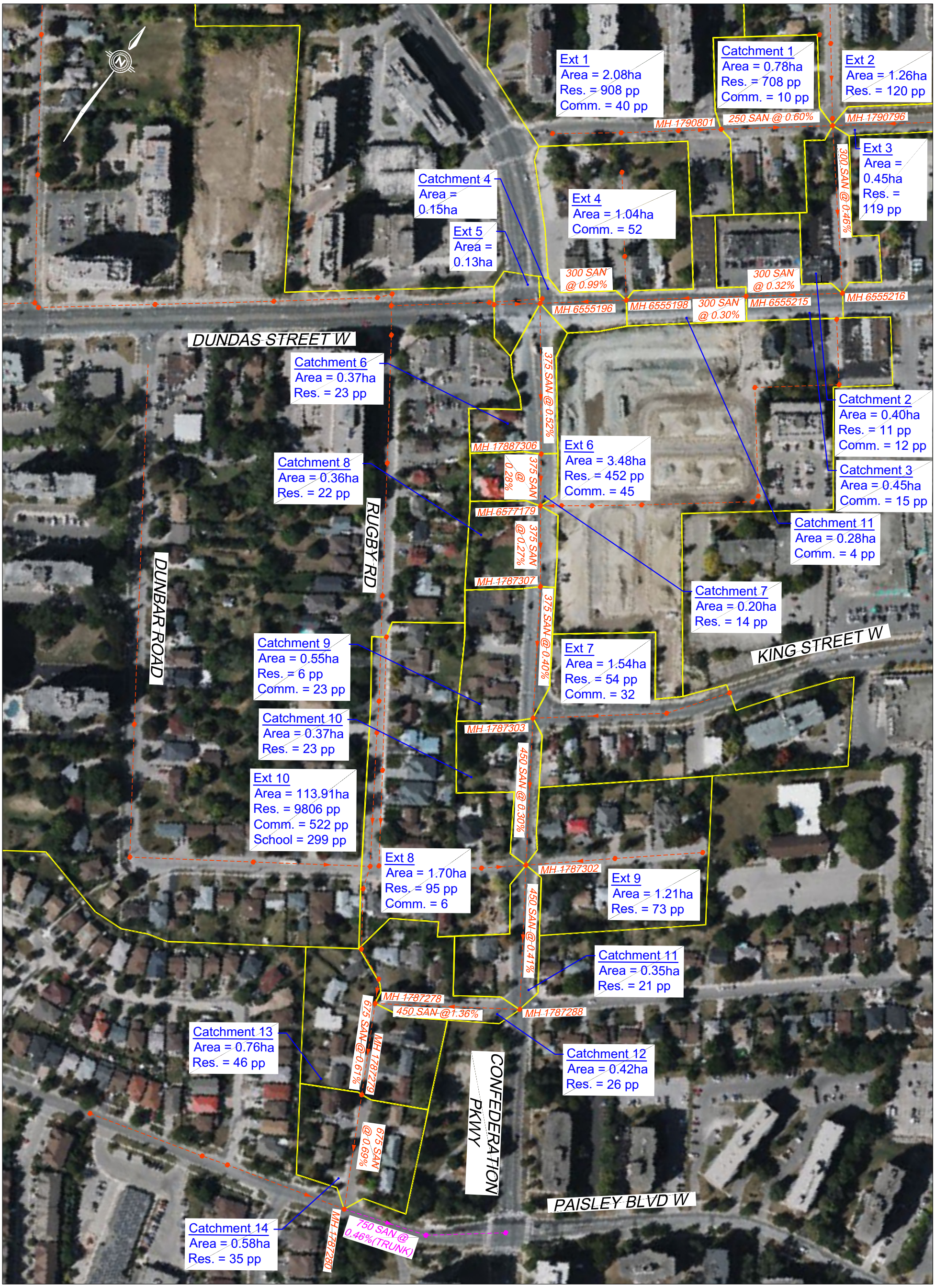
2025-07-30
Designed: D.A.
Checked: A.W.

EXISTING FLOWS

Land Use	Site Area (ha)	Number of Residential Units	Population Density		Equivalent Population (persons)	Average Daily Generation Rate		Average Daily Population Flow (L/s)	Peaking Factor	Peak Flow (L/s)	I&I Allowance (L/s)	Total Design Flow (L/s)
Residential - 60 Agnes Street	0.08	1	4.2	persons/unit	5	290	L/cap/day	0.02	4.00	0.07	0.02	0.09
Residential - 66 Agnes Street	0.08	1	4.2	persons/unit	5	290	L/cap/day	0.02	4.00	0.07	0.02	0.09
Residential - 70 Agnes Street	0.08	1	4.2	persons/unit	5	290	L/cap/day	0.02	4.00	0.07	0.02	0.09
Commercial - 51-57 Dundas Street W	0.10	-	50	person/ha	6	270	L/cap/day	0.02	4.00	0.08	0.03	0.10
Daycare - 78 Agnes Street	0.10	-	50	person/ha	6	270	L/cap/day	0.02	4.00	0.08	0.03	0.10
Total	0.44				27.00			0.09		0.35	0.11	0.47

Notes:

1. Site statistics are based on the architectural site plan provided by Sajecki Planning dated June 16, 2025.
2. Population densities and average daily flow generation rates are based on the guidelines outlined in Region of Peel Linear Wastewater Standards dated March 29, 2023.



LEGEND

- CATCHMENT BOUNDARY
- TRUNK SAN SEWER
- SAN SEWER

CLIENT
55 DUNDAS DEVELOPMENT LTD.
(D-STILLWATERS DEVELOPMENTS INC.)

TITLE
51-55 DUNDAS STREET WEST & 60-78 AGNES STREET

SANITARY DRAINAGE FIGURE

EXISTING CONDITIONS - CATCHMENTS TRIBUTARY TO EX. 750Ø PAISLEY BLVD W TRUNK SAN

6415 Northwest Dr.
Mississauga, ON Canada
L4V 1X1
Office (905) 677-0202
E-mail admin@envisionconsultants.ca

Checked A.W.	Drawn D.A.
Date JAN 2025	Proj. No. 25-0878
Scale 1:2500	Figure No. SA-EX

FILENAME: C:\Users\JulianaZupancic\DC\ACCDocs\EnVision\EnVision - LD\Project Files\25-0878 55 Dundas St E\Mun\Figures\25-0878_San Analysis.dwg
PLOTDATE: Jul 30, 2025 - 4:36pm, JulianaZupancic

EnVision Consultants Ltd.
51-55 Dundas Street W & 60-78 Agnes Street
Project No.: 25-0878

Sanitary Sewer Design Sheet - Existing

Region of Peel

2025-07-30
Designed: JZ
Checked: DA

Population Density		
Singles	60	persons/ha
Semis	70	persons/ha
Towns	175	persons/ha
Apartments	475	persons/ha

Population Density	
Commercial	50 persons/ha
Industrial	70 persons/ha
School	50 persons/ha
Park	25 persons/ha

$$M = 1 + \frac{14}{4 + \sqrt{P/1000}}$$

where M = peaking factor
P = population

Manning's n = 0.013
Infiltration Allowance = 0.260 L/s/ha

Res. Average Daily Flow = 290 L/cap/day
Non-Res. Average Daily Flow = 270 L/cap/day

Street Name	From MH	To MH	Incremental Area (ha)								Incremental Population	Total Population	Average Flow	M	Peak Flow	Incremental Area	Total Area	I&I Allowance	Incremental Pumped Flow	Total Pumped Flow	Total Design Flow	Sewer Information						
			Singles	Semis	Towns	Apartments	Commercial	Industrial	School	Park												Length	Dia.	Slope	Full Capacity	Full Velocity	% Full	Actual Velocity
											(persons)	(persons)	(L/s)		(L/s)	(ha)	(ha)	(L/s)	(L/s)	(L/s)	(L/s)	(m)	(mm)	(%)	(L/s)	(m/s)		(m/s)
Agnes Street	EXT 1	MH 1790801				1.91	0.17				916	916	3.07	3.824	11.747	2.08	2.08	0.541		0.00	12.288							
	65-71 Agnes	MH 1790801									694	694																
Agnes Street (Catchment 1)	MH 1790801	MH 1790796	0.23				0.20				24	1634	5.48	3.652	20.010	0.78	2.86	0.744		0.00	20.754	78.64	250	0.60%	46.0633	0.9384	45.1%	0.91
Cook Street (north of Agnes Street)	EXT 2	MH 1790796	0.30		0.58					0.38	129	129	0.43	4.000	1.723	1.26	1.26	0.328		0.00	2.051							
Agnes Street (east of Cook Street)	EXT 3	MH 1790796				0.25				0.20	124	124	0.41	4.000	1.657	0.45	0.45	0.117		0.00	1.774							
Cook Street (Catchment 2)	MH 1790796	MH 6555216	0.17				0.23				22	1909	6.39	3.601	23.027	0.40	4.97	1.292		0.00	24.319	115.2	300	0.46%	65.5856	0.9278	37.1%	0.86
Dundas Street W (Catchment 3)	MH 6555216	MH 6555215					0.29				15	1924	6.44	3.599	23.173	0.45	5.42	1.409		0.00	24.583	66	300	0.32%	54.7022	0.7739	44.9%	0.75
Dundas Street W (Catchment 4)	MH 6555215	MH 6555198					0.08				4	1928	6.45	3.598	23.214	0.28	5.70	1.482		0.00	24.696	86.5	300	0.30%	52.9652	0.7493	46.6%	0.74
Novar Road	EXT 4	MH 6555198					1.04				52	52	0.16	4.000	0.650	1.04	1.04	0.270		0.00	0.920							
Dundas Street W (Catchment 5)	MH 6555198	MH 6555196									0	1980	6.61	3.589	23.739	0.15	6.89	1.791		0.00	25.531	59.57	300	0.99%	96.2160	1.3612	26.5%	1.15
Dundas Street W (west of Confed. Pkwy	EXT 5	MH 6555196								0.13	4	4	0.00	4.000	0.000	0.13	0.13	0.034		0.00	0.034							
Confederation Parkway (Catchment 6)	MH 6555196	MH 17887306	0.37								23	2007	6.69	3.585	23.976	0.37	7.39	1.921		0.00	25.898	102.35	375	0.52%	126.4324	1.1447	20.5%	0.90
Confederation Parkway (Catchment 7)	MH 17887306	MH 6577179		0.20							14	2021	6.74	3.582	24.129	0.20	7.59	1.973		0.00	26.102	36.26	375	0.28%	92.7760	0.8400	28.1%	0.72
90-110 Dundas Street W	EXT 6	MH 6577179			2.58		0.90				497	497	1.66	3.976	6.584	3.48	3.48	0.905		0.00	7.489							
Confederation Parkway (Catchment 8)	MH 6577179	MH 1787307	0.36								22	2540	8.46	3.503	29.649	0.36	11.43	2.972		0.00	32.620	55.44	375	0.27%	91.1042	0.8249	35.8%	0.76
Confederation Parkway (Catchment 9)	MH 1787307	MH 1787303	0.09				0.46				29	2569	8.55	3.499	29.929	0.55	11.98	3.115		0.00	33.044	92	375	0.40%	110.8885	1.0040	29.8%	0.87
King Street W	EXT 7	MH 1787303	0.90				0.64				86	86	0.28	4.000	1.125	1.54	1.54	0.400		0.00	1.525							
Confederation Parkway (Catchment 10)	MH 1787303	MH 1787302	0.37								23	2678	8.91	3.484	31.041	0.37	13.89	3.611		0.00	34.652	102.6	450	0.30%	156.1591	0.9819	22.2%	0.79
Dunbar Road (west of Confed. Pkwy)	EXT 8	MH 1787302	1.58				0.12				101	101	0.34	4.000	1.348	1.70	1.70	0.442		0.00	1.790							
Dunbar Road (east of Confed. Pkwy)	EXT 9	MH 1787302	1.21								73	73	0.24	4.000	0.975	1.21	1.21	0.315		0.00	1.289							
Confederation Parkway (Catchment 11)	MH 1787302	MH 1787288	0.35								21	2873	9.56	3.458	33.065	0.35	17.15	4.459		0.00	37.524	100.5	450	0.41%	182.5570	1.1478	20.6%	0.90
Floradale Drive (Catchment 12)	MH 1787288	MH 1787278	0.42								26	2899	9.65	3.455	33.326	0.42	17.57	4.568		0.00	37.894	95	450	1.36%	332.4880	2.0906	11.4%	1.38
Floradale Drive Easement	EXT 10	MH 1787278	15.29	73.93	0.37	7.68	11.03		5.98		10656	10656	35.57	2.927	104.118	113.91	113.91	29.617		0.00	133.735							
Floradale Drive (Catchment 13)	MH 1787278	MH 1787279	0.76								46	13601	45.37	2.821	127.984	0.76	132.24	34.382		0.00	162.366	67.4	675	0.61%	656.5203	1.8346	24.7%	1.52
Floradale Drive (Catchment 14)	MH 1787279	MH 1787280	0.58								35	13636	45.48	2.820	128.262	0.58	132.82	34.533		0.00	162.795	76.8	675	0.69%	698.2450	1.9512	23.3%	1.59

Notes:
1. Site statistics are based on the Concept Plan provided by Armstrong Planning, received July 23, 2024.
2. Population densities and unitary flow rates are based on the guidelines found in the Regional Municipality of Halton Water and Wastewater Linear Design Manual, dated October 2019.
3. Infiltration and inflow allowance is 0.286 L/s/ha, per Region standards.
4. Peaking factor determined by modified Harmon formula, per Region standards.
5. Discharge rate of 1000 L/s assumed for the existing Britannia Road sanitary pumping station based on the Ministry of Environment, Conservation and Parks (MECP) Environmental Compliance Approval (ECA) Number 1355-AT6MUJ.
6. Discharge rate of 225 L/s assumed for the planned Tremaine Road sanitary pumping station (Halton Region Capital Project 6555) based on Halton Region Budget and Business Plan Capital Report 2022.
7. All flows from the Boyne pumping station are assumed to be directed to a 900mm CPP forcemain on Britannia Road and overflow from the pumping station is not accounted for in this analysis.
8. The community population density established in the Regional Municipality of Halton Water and Wastewater Linear Design Manual is used for institutional land uses.
9. The analysis assumes that Catchments 10a, 10d, 10e, 10g and 10h are not fully developed and contribute no sanitary flows to the municipal system under interim conditions. Under ultimate conditions, it is assumed that these catchments will be future industrial developments which will contribute sanitary flows to the municipal system.

EnVision Consultants Ltd.
51-55 Dundas Street W & 60-78 Agnes Street
Project No.: 25-0878

Sanitary Flow Generation

Region of Peel

2025-07-30
Designed: D.A.
Checked: A.W.

PROPOSED FLOWS

Land Use	Site Area (ha)	Number of Residential Units	Gross Floor Area (ha)	Population Density		Equivalent Population (persons)	Average Daily Generation Rate		Average Daily Population Flow (L/s)	Peaking Factor	Peak Flow (L/s)	I&I Allowance (L/s)	Total Design Flow (L/s)
Residential (Studio)	0.42	42	3.48	2.7	persons/unit	114	290	L/cap/day	0.38	4.0	1.53	0.11	19.67
Residential (1BR, 1BR+ Den)		404		2.7	persons/unit	1091	290	L/cap/day	3.66	3.8	13.82		
Residential (2BR, 2BR + Den)		103		2.7	persons/unit	279	290	L/cap/day	0.94	4.0	3.75		
Residential (3BR, 3BR + Den)		10		2.7	persons/unit	27	290	L/cap/day	0.09	4.0	0.36		
Commercial & Office		-	0.10	50	persons/ha	6	270	L/cap/day	0.02	4.0	0.08		
Daycare		-	0.03	50	persons/ha	2	270	L/cap/day	0.01	4.0	0.03		
Dundas Street West- Road Widening Land Dedication	0.02	-	-	-	-	-	-	-	-	-	-	0.01	0.01
Total	0.44	559	3.61			1519			5.10		19.56	0.11	19.68

Notes:
1. Site statistics are based on the architectural site plan provided by Sajecki Planning dated June 16, 2025.
2. Population densities and average daily flow generation rates are based on the guidelines outlined in Region of Peel Linear Wastewater Standards dated March 29, 2023.
3. Residential population density of 2.7 ppu was considered, as the population equivalent is greater than 475 persons/ha per the Region's guidelines.
4. Retail, daycare and office spaces are considered to be Commercial land use.

LEGEND

- CATCHMENT BOUNDARY
- TRUNK SAN SEWER
- SAN SEWER

CLIENT
55 DUNDAS DEVELOPMENT LTD.
(D-STILLWATERS DEVELOPMENTS INC.)

TITLE
51-55 DUNDAS STREET WEST & 60-78 AGNES STREET

SANITARY DRAINAGE FIGURE

PROPOSED CONDITIONS - CATCHMENTS TRIBUTARY TO EX. 750Ø PAISLEY BLVD W TRUNK SAN

6415 Northwest Dr.
Mississauga, ON Canada
L4V 1X1
Office (905) 677-0202
E-mail admin@envisionconsultants.ca

Checked A.W.	Drawn D.A.
Date JAN 2025	Proj. No. 25-0878
Scale 1:2500	Figure No. SA-PROP

FILENAME: C:\Users\JulianaZupancic\DC\ACCDocs\EnVision\EnVision - LD\Project Files\25-0878 55 Dundas St E\Mun\Figures\25-0878_San Analysis.dwg
PLOTDATE: Jul 30, 2025 - 4:36pm, JulianaZupancic

EnVision Consultants Ltd.

51-55 Dundas Street W & 60-78 Agnes Street
Project No.: 25-0878

Sanitary Sewer Design Sheet - Proposed

Region of Peel

2025-07-30

Designed: JZ
Checked: DA

Population Density		
Singles	60	persons/ha
Semis	70	persons/ha
Towns	175	persons/ha
Apartments	475	persons/ha

Population Density		
Commercial	50	persons/ha
Industrial	70	persons/ha
School	50	persons/ha
Park	25	persons/ha

$$M = 1 + \frac{14}{4 + \sqrt{P/1000}}$$

where M = peaking factor
P = population

Manning's n = 0.013
Infiltration Allowance = 0.260 L/s/ha

Res. Average Daily Flow = 290 L/cap/day
Non-Res. Average Daily Flow = 270 L/cap/day

Street Name	From MH	To MH	Incremental Area (ha)								Incremental Population	Total Population	Average Flow	M	Peak Flow	Incremental Area	Total Area	I&I Allowance	Incremental Pumped Flow	Total Pumped Flow	Total Design Flow	Sewer Information						
			Singles	Semis	Towns	Apartments	Commercial	Industrial	School	Park	(persons)	(persons)	(L/s)		(L/s)	(ha)	(ha)	(L/s)	(L/s)	(L/s)	(L/s)	Length (m)	Dia. (mm)	Slope (%)	Full Capacity (L/s)	Full Velocity (m/s)	% Full	Actual Velocity (m/s)
Agnes Street	EXT 1	MH 1790801				1.91	0.17				916	916	3.07	3.824	11.747	2.08	2.08	0.541		0.00	12.288							
	65-71 Agnes	MH 1790801									694	694																
Agnes Street (Catchment 1)	MH 1790801	MH 1790796									0	1610	5.40	3.657	19.753	0.53	2.61	0.679		0.00	20.431	78.64	250	0.60%	46.0633	0.9384	44.4%	0.91
Cook Street (north of Agnes Street)	EXT 2	MH 1790796	0.30		0.58					0.38	129	129	0.43	4.000	1.723	1.26	1.26	0.328		0.00	2.051							
Agnes Street (east of Cook Street)	EXT 3	MH 1790796				0.25				0.20	124	124	0.41	4.000	1.657	0.45	0.45	0.117		0.00	1.774							
Cook Street (Catchment 2)	MH 1790796	MH 6555216					0.08				4	1867	6.26	3.609	22.586	0.24	4.56	1.186		0.00	23.772	115.2	300	0.46%	65.5856	0.9278	36.2%	0.85
	55 Dundas	MH 6555216									1519	1519								0.00								
Dundas Street W (Catchment 3)	MH 6555216	MH 6555215	0.22				0.48				38	3424	11.46	3.393	38.899	0.86	5.42	1.409		0.00	40.308	66.7	300	0.32%	54.7022	0.7739	73.7%	0.85
Dundas Street W (Catchment 4)	MH 6555215	MH 6555198					0.08				4	3428	11.48	3.393	38.936	0.28	5.70	1.482		0.00	40.418	86.5	300	0.30%	52.9652	0.7493	76.3%	0.83
Novar Road	EXT 4	MH 6555198					1.04				52	52	0.16	4.000	0.650	1.04	1.04	0.270		0.00	0.920							
Dundas Street W (Catchment 5)	MH 6555198	MH 6555196									0	3480	11.64	3.387	39.421	0.15	6.89	1.791		0.00	41.213	59.57	300	0.99%	96.2160	1.3612	42.8%	1.31
Dundas Street W (west of Confed. Pkwy	EXT 5	MH 6555196								0.13	4	4	0.00	4.000	0.000	0.13	0.13	0.034		0.00	0.034							
Confederation Parkway (Catchment 6)	MH 6555196	MH 17887306	0.37								23	3507	11.71	3.384	39.639	0.37	7.39	1.921		0.00	41.561	102.35	375	0.52%	126.4324	1.1447	32.9%	1.03
Confederation Parkway (Catchment 7)	MH 17887306	MH 6577179		0.20							14	3521	11.76	3.382	39.781	0.20	7.59	1.973		0.00	41.754	36.26	375	0.28%	92.7760	0.8400	45.0%	0.82
90-110 Dundas Street W	EXT 6	MH 6577179			2.58		0.90				497	497	1.66	3.976	6.584	3.48	3.48	0.905		0.00	7.489							
Confederation Parkway (Catchment 8)	MH 6577179	MH 1787307	0.36								22	4040	13.49	3.329	44.913	0.36	11.43	2.972		0.00	47.885	55.44	375	0.27%	91.1042	0.8249	52.6%	0.83
Confederation Parkway (Catchment 9)	MH 1787307	MH 1787303	0.09				0.46				29	4069	13.58	3.327	45.175	0.55	11.98	3.115		0.00	48.290	92	375	0.40%	110.8885	1.0040	43.5%	0.97
King Street W	EXT 7	MH 1787303	0.90				0.64				86	86	0.28	4.000	1.125	1.54	1.54	0.400		0.00	1.525							
Confederation Parkway (Catchment 10)	MH 1787303	MH 1787302	0.37								23	4178	13.94	3.316	46.214	0.37	13.89	3.611		0.00	49.826	102.6	450	0.30%	156.1591	0.9819	31.9%	0.87
Dunbar Road (west of Confed. Pkwy)	EXT 8	MH 1787302	1.58				0.12				101	101	0.34	4.000	1.348	1.70	1.70	0.442		0.00	1.790							
Dunbar Road (east of Confed. Pkwy)	EXT 9	MH 1787302	1.21								73	73	0.24	4.000	0.975	1.21	1.21	0.315		0.00	1.289							
Confederation Parkway (Catchment 11)	MH 1787302	MH 1787288	0.35								21	4373	14.59	3.298	48.112	0.35	17.15	4.459		0.00	52.571	100.5	450	0.41%	182.5570	1.1478	28.8%	0.99
Floradale Drive (Catchment 12)	MH 1787288	MH 1787278	0.42								26	4399	14.67	3.296	48.357	0.42	17.57	4.568		0.00	52.925	95	450	1.36%	332.4880	2.0906	15.9%	1.52
Floradale Drive Easement	EXT 10	MH 1787278	15.29	73.93	0.37	7.68	11.03		5.98		10656	10656	35.57	2.927	104.118	113.91	113.91	29.617		0.00	133.735							
Floradale Drive (Catchment 13)	MH 1787278	MH 1787279	0.76								46	15101	50.39	2.775	139.856	0.76	132.24	34.382		0.00	174.238	67.4	675	0.61%	656.5203	1.8346	26.5%	1.55
Floradale Drive (Catchment 14)	MH 1787279	MH 1787280	0.58								35	15136	50.51	2.774	140.129	0.58	132.82	34.533		0.00	174.662	76.8	675	0.69%	698.2450	1.9512	25.0%	1.62

Notes:
1. Site statistics are based on the Concept Plan provided by Armstrong Planning, received July 23, 2024.
2. Population densities and unitary flow rates are based on the guidelines found in the Regional Municipality of Halton Water and Wastewater Linear Design Manual, dated October 2019.
3. Infiltration and inflow allowance is 0.286 L/s/ha, per Region standards.
4. Peaking factor determined by modified Harmon formula, per Region standards.
5. Discharge rate of 1000 L/s assumed for the existing Britannia Road sanitary pumping station based on the Ministry of Environment, Conservation and Parks (MECP) Environmental Compliance Approval (ECA) Number 1355-AT6MUJ.
6. Discharge rate of 225 L/s assumed for the planned Tremaine Road sanitary pumping station (Halton Region Capital Project 6555) based on Halton Region Budget and Business Plan Capital Report 2022.
7. All flows from the Boyne pumping station are assumed to be directed to a 900mm CPP forcemain on Britannia Road and overflow from the pumping station is not accounted for in this analysis.
8. The community population density established in the Regional Municipality of Halton Water and Wastewater Linear Design Manual is used for institutional land uses.
9. The analysis assumes that Catchments 10a, 10d, 10e, 10g and 10h are not fully developed and contribute no sanitary flows to the municipal system under interim conditions. Under ultimate conditions, it is assumed that these catchments will be future industrial developments which will contribute sanitary flows to the municipal system.

APPENDIX D:

Region Multi-Use Demand Table

EnVision Consultants Ltd.

Water and Wastewater Multi-Use Demand Table

2025-07-30

51-55 Dundas Street W & 60-78 Agnes Street

Region of Peel

Designed: D.A.

Project No.: 25-0878

Checked: A.W.

POPULATION

Existing

	units	persons
Residential	3	15
Institutional/Employment		12
Total	3	27

Proposed

	units	persons	
Residential			
Apartments*	559	1511	*Population equivalent is greater than 475 persons/ha, therefore, apartment density = 2.7 persons/unit per Peel Region Linear Wastewater Stds (March 29, 2023)
Proposed Employment		8	
Total Proposed		**1519**	

Other

Existing GFA (commercial) (sqm)	0
Proposed GFA (commercial) (sqm)	1,017
Proposed Land Area (ha)	0.42

WATER CONNECTION

Hydrant flow test

	Base Hydrant Location	Test Hydrant Location	Date
	Dundas St & Hurontario St HYD: 2019095	Dundas St & Confederation PKY HYD: 2019098	2025-04-10
	Anges St & Cook St HYD: 6548263	(across from) 78 Anges St HYD: 2020577	2025-04-10

		Pressure (kPa)	Flow (L/s)	Time
Dundas	Minimum water pressure	517.11	157.73	11:40AM
	Maximum water pressure	592.95	37.85	11:40AM
Anges	Minimum water pressure	524.00	157.73	10:48AM
	Maximum water pressure	579.16	31.55	10:48AM

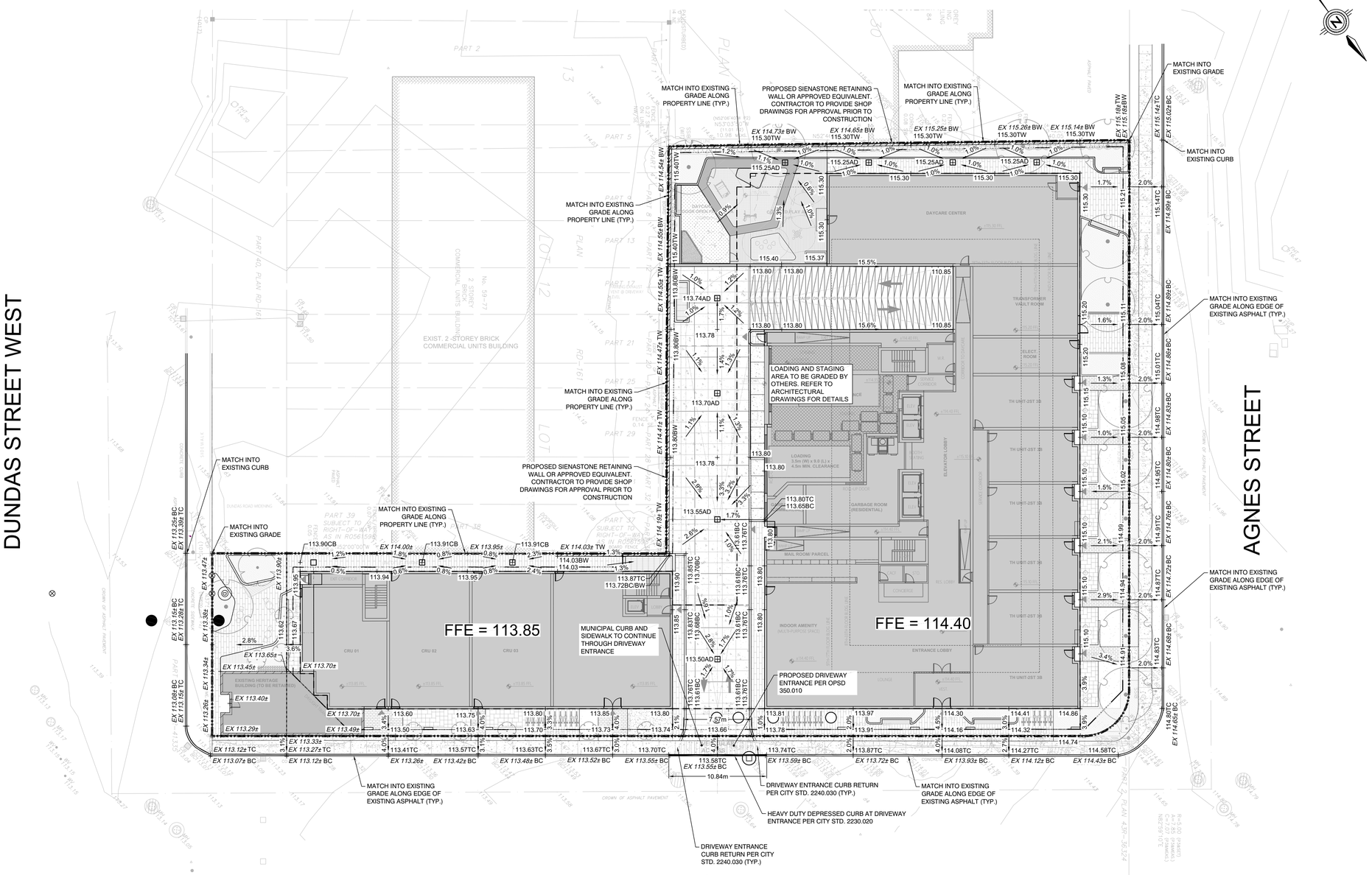
No.	**Water demands**			
		Demand (L/s)		
	Demand type	**Residential**	**Commercial**	**Total**
	Existing Fire Flow			**0**
1	Proposed average day flow	4.90	0.03	4.92
2	Proposed maximum day flow	9.79	0.04	9.83
3	Proposed peak hour flow	14.69	0.08	14.77
4	Proposed fire flow	200		200
Analysis				
5	Maximum day plus fire flow	209.83		209.83

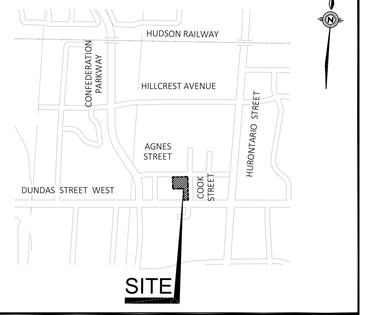
WASTEWATER CONNECTION

	Discharge Location	**Flow (L/s)**
Existing Effluent	300mm sewer on Dundas St W	0.47
Proposed Effluent	300mm sewer on Dundas St W	19.68
Total Proposed Effluent		19.68

APPENDIX E:

Grading and Servicing Plans





KEY PLAN NTS

LEGEND

EX179.89±	EXISTING GRADE
+181.69	PROP. GRADE
+[181.69]	PROP. LRT STATION GRADE
180.00	EX. CONTOUR
	OVERLAND FLOW
	DIRECTION OF FLOW
	SANITARY MANHOLE
	STORM MANHOLE
CB	CATCHBASIN
DCB	DOUBLE CATCHBASIN
V&B	VALVE AND BOX
H&V	HYDRANT AND VALVE
	LIMIT OF PROPERTY
	UNDERGROUND BUILDING LIMIT
	OVERHEAD BUILDING LIMIT
	CANOPY LIMIT

BENCHMARK NOTES:

ELEVATION ARE REFERRED TO CANADIAN GEODETIC VERTICAL DATUM-1928, AND WERE DERIVED FROM THE CITY OF MISSISSAUGA BENCHMARK NO. 379, HAVING A PUBLISHED ELEVATION OF 82.771 METRES.

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

PIPE SIZES ARE IN MILLIMETRES

No.	REVISIONS	DATE	APPR. BY
1	ISSUED FOR 1ST O.P.A. / Z.B.A. SUBMISSION	AUG 01/25	D.A.

CLIENT

55 DUNDAS DEVELOPMENTS LTD.
(D-STILLWATERS DEVELOPMENT INC.)

PROJECT TITLE

51-55 DUNDAS STREET WEST
& 60-78 AGNES STREET
MISSISSAUGA, ONTARIO

STAMP

LICENSED PROFESSIONAL ENGINEER
T. M. ABIKOYE
100546720
2025-08-01
PROVINCE OF ONTARIO

APPROVED AS TO FORM IN RELIANCE UPON THE PROFESSIONAL SKILL AND ABILITY OF ENVISION CONSULTANTS LTD. AS TO DESIGN AND SPECIFICATION

DIRECTOR OF DEVELOPMENT / TRANSPORTATION ENGINEERING

CONSULTANT

ENVISION CONSULTANTS LTD
6415 Northwest Dr. Mississauga, ON Canada L4V 1X1
Office (905) 677-0202
E-mail admin@envisionconsultants.ca

MUNICIPALITY

MISSISSAUGA
Region of Peel working with you

SHEET TITLE

SITE GRADING PLAN

DESIGNED BY:	DATE:	CHECKED BY:
D.A.	JAN 2025	A.W.
DRAWN BY: M.R.	PROJECT No. 24-0878	
SCALES: 1: 250 1: 250		DRAWING No. C-101

GRADING NOTES

A. ALL SURFACE DRAINAGE WILL BE SELF-CONTAINED, COLLECTED AND DISCHARGED AT A LOCATION TO BE APPROVED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.

B. THE PORTIONS OF THE DRIVEWAY WITHIN THE MUNICIPAL BOULEVARD WILL BE PAVED BY THE APPLICANT.

C. AT THE ENTRANCES TO THE SITE, THE MUNICIPAL CURB AND SIDEWALK WILL BE CONTINUOUS THROUGH THE DRIVEWAY AND A CURB DEPRESSION WILL BE PROVIDED FOR EACH ENTRANCE.

D. ALL PROPOSED CURBING WITHIN THE MUNICIPAL BOULEVARD AREA FOR THE SITE IS TO SUIT AS FOLLOWS:
I) FOR ALL SINGLE FAMILY RESIDENTIAL PROPERTIES INCLUDING ON STREET TOWNHOUSES, ALL CURBING IS TO STOP AT THE PROPERTY LIMIT OR THE BACK OF THE MUNICIPAL SIDEWALK, WHICHEVER IS APPLICABLE; OR
II) FOR ALL OTHER PROPOSALS INCLUDING INDUSTRIAL, COMMERCIAL AND MULTI-UNIT RESIDENTIAL DEVELOPMENTS, ALL ENTRANCES TO THE SITE ARE TO BE IN ACCORDANCE WITH CITY OF MISSISSAUGA STANDARDS 2240.030 OR 2240.031 (AS APPLICABLE) AND 2230.020. DRIVEWAY AND ENTRANCE CURB RADII DIMENSIONS SHALL BE IN ACCORDANCE WITH OPSD 350.010.

E. ALL EXCESS EXCAVATED MATERIAL WILL BE REMOVED FROM THE SITE.

F. THE EXISTING DRAINAGE PATTERN WILL BE MAINTAINED EXCEPT WHERE NOTED.

G. THE APPLICANT WILL BE REQUIRED TO CONTACT ALL UTILITY COMPANIES TO OBTAIN ALL REQUIRED LOCATES PRIOR TO THE INSTALLATION OF HOARDING WITHIN THE MUNICIPAL RIGHT-OF-WAY.

H. THE APPLICANT WILL BE RESPONSIBLE FOR THE COST OF ANY UTILITY RELOCATIONS NECESSITATED BY THE SITE PLAN.

I. ALL INTERNAL CURBS ARE TO BE STANDARD 2-STAGE CURB AND GUTTER AS PER O.P.S.D. 600.070.

J. PRIOR TO COMMENCING CONSTRUCTION, ALL REQUIRED HOARDING IN ACCORDANCE WITH THE ONTARIO OCCUPATIONAL HEALTH & SAFETY ACT AND REGULATION FOR CONSTRUCTION PROJECTS, MUST BE ERECTED THEN MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION.

K. SHOULD ANY WORKS BE REQUIRED WITHIN THE MUNICIPAL RIGHT-OF-WAY, A ROAD OCCUPANCY PERMIT WILL BE REQUIRED. FOR FURTHER INFORMATION PLEASE CONTACT THE PUCC/PERMIT TECHNOLOGIST, LOCATED AT 3185 MAVIS ROAD.

PRELIMINARY

"I HAVE REVIEWED THE PLANS FOR THE CONSTRUCTION OF A PROPOSED 34-STOREY MIXED-USE RESIDENTIAL BUILDING LOCATED AT 60-70 AGNES STREET & 51-55 DUNDAS STREET WEST 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 SURFACE DRAINAGE AND PROPER FACILITY OF THE MUNICIPAL SERVICES WITHOUT ANY DETRIMENTAL EFFECT TO THE EXISTING DRAINAGE PATTERNS OR ADJACENT PROPERTIES."

LICENSED PROFESSIONAL ENGINEER
T. M. ABIKOYE
100546720
2025-08-01
PROVINCE OF ONTARIO

SIGNATURE AND STAMP

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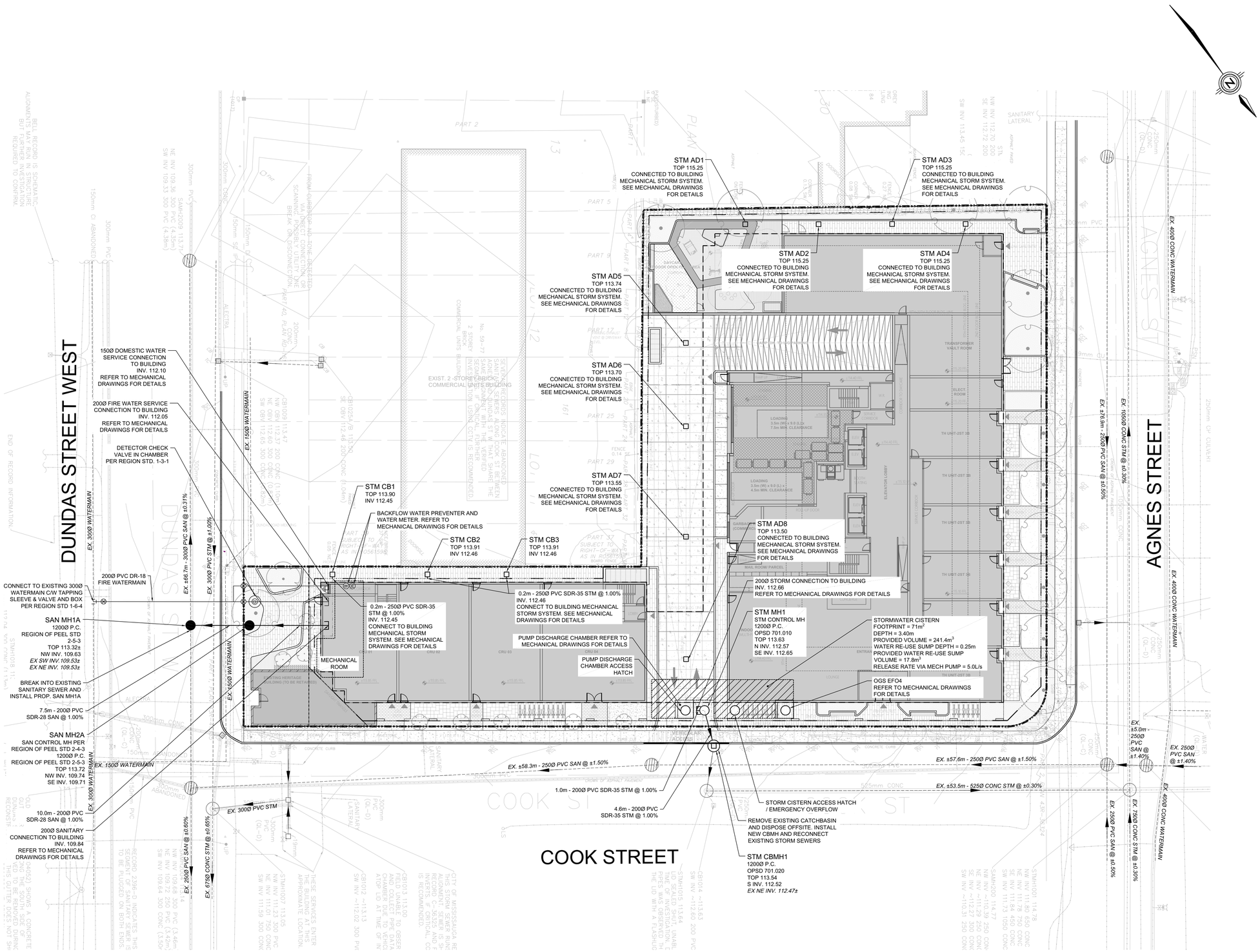

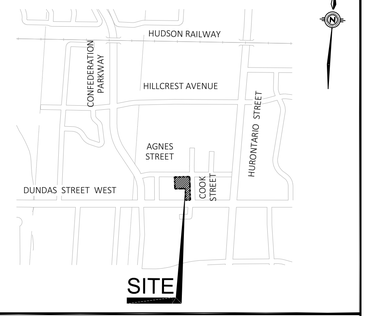

KEY PLAN NTS

LEGEND

VC	EX. VALVE & CHAMBER
HYD.	EX. HYDRANT
SAN MH	EX. SANITARY MANHOLE
STM MH	EX. STORM MANHOLE
CB	EX. CATCHBASIN
	SANITARY MANHOLE
	STORM MANHOLE
CB	CATCHBASIN
DCB	DOUBLE CATCHBASIN
V&B	VALVE AND BOX
H&V	HYDRANT AND VALVE
	LIMIT OF PROPERTY
	UNDERGROUND BUILDING LIMIT
	OVERHEAD BUILDING LIMIT
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No.	REVISIONS	DATE	APPR. BY
1	ISSUED FOR 1ST O.P.A. / Z.B.A. SUBMISSION	AUG 01/25	D.A.

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CONSULTANT

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Office (905) 677-0202
E-mail admin@envisionconsultants.ca

MUNICIPALITY

MISSISSAUGA
Region of Peel working with you

SHEET TITLE

SITE SERVICING PLAN

DESIGNED BY: D.A.	DATE: JAN 2025	CHECKED BY: A.W.	
DRAWN BY: M.R.	PROJECT No. 24-0878		
SCALES: 1: 250 1: 250		DRAWING No. C-102	

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