TRAFALGAR ENGINEERING

FUNCTIONAL SERVICING REPORT

Water, Sanitary, and Stormwater Management

PROPOSED MIXED-USE CONDOMINIUM TOWERS
DISTRIKT MIDTOWN

590 ARGUS ROAD
TOWN OF OAKVILLE

OUR FILE: 1798

PREPARED FOR DISTRIKT DEVELOPMENTS INC.

April 2023

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REVISION HISTORY

DATE	REVISION	SUBMISSION
April 2023	1	Issued for Rezoning/OPA Application

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1.0 INTRODUCTION

1.1 Scope of Functional Servicing Report

This report has been prepared in support of the Rezoning (ZBA) and Official Plan Amendment (OPA) to permit the construction of a three-tower mixed-use condominium located at 590 Argus Road in the Town of Oakville (a copy of the preliminary Site Plan and site statistics are included in Appendix 'A'). This report discusses how the proposed site can be serviced by the existing and future infrastructure for water, wastewater, storm drainage/stormwater management, site grading, and erosion and sediment control. This report also briefly discusses the proposed local roads required as part of the Midtown Oakville EA. This report may be updated and refined as the project moves through the planning process to support the subdivision design.

Information provided in this report is based on our general knowledge of the area as well as information/drawings obtained from the Town of Oakville and the Region of Halton. Additionally, the following documents have been reviewed in support of this application:

- Stormwater Management Report, Oakville Part III Midtown EA, Town of Oakville, Cole Engineering, June 2014 (Midtown EA)
- Water and Wastewater Area Servicing Plan for Midtown Oakville, Final Report, Blue Plan Engineering, September 28, 2017 (ASP)
- Addendum to the Water and Wastewater Area Servicing Plan (ASP) for Midtown Oakville, Blue Pan Engineering, December 2020 (ASP Addendum)

1.2 Site Location and Description

The subject lands consist of 590 Argus Road in the Town of Oakville, having a total area of approximately 1.54 ha. The site currently consists of a six-storey hotel and associated parking. It is bounded to the north by the QEW and South Service Road East, 586 Argus Road to the west, Argus Road and 589 Argus Road to the south, and 226 and 234 South Service Road East to the east. A copy of the topographic survey is provided in Appendix 'A' for reference.

There is an existing 6.10 m wide easement described as Part 11 Plan 20R-15677 subject to a right-of-way as in instrument no. 105451 and 106047 that runs north south through the property. This easement contains a 600 mm diameter wide trunk sanitary sewer, and a 25 mm diameter water service.

1.3 Proposed Development

The development proposal is for three mixed-use condominium towers consisting of 1731 residential units and approximately 2394 m^2 of non-residential space. The building is to be constructed over six levels of underground parking which extend essentially to the property lines. A copy of the architect's site statistics is included in Appendix 'A' for detail. As this site is adjacent to an MTO corridor, a 14.0 m MTO setback is provided.

There are proposed road widenings and road realignments to Argus Road and South Service Road. As a result, the total developable area is 1.21 ha. Driveway access is provided off the realigned South Service Road at the north of the property.

2.0 ROAD NETWORK

The Midtown Oakville Class EA (approved 2014) and the Liveable Oakville Plan OPA 14 (adopted 2017) identify the local road network for the Midtown growth area. Growth Area Schedule L3 (refer to Appendix 'B') of the Liveable Oakville Plan illustrates the approximate alignments and road allowance widths of various future roads in the Midtown Oakville transportation network.

We understand based on discussions with Town staff that the exact locations of the future roads are flexible and can be fixed through the planning process; however, the proposed locations must meet the intent of both the Midtown EA and OPA 14 and be justified from a traffic and engineering perspective.

This development is impacted by the realignment of South Service Road along the north and east sides of the subject lands, and Argus Road widening to the south.

2.1 South Service Road

South Service Road is to be shifted in a southerly direction to accommodate a proposed QEW off-ramp. Preliminary design of South Service Road was undertaken by Cole Engineering as part of the Midtown EA; however, the Town of Oakville has been in ongoing discussions with MTO regarding the details of the realignment. Town staff provided the consultant team with conceptual drawings that were used to establish a future centreline and consequently the northerly and easterly limits of the development.

Appendix 'K' of the Midtown EA contains several preliminary design details for the Midtown transportation network. One such detail is the typical cross-section of South Service Road. It's worth noting that the EA identifies South Service Road as having a 16.0 m road allowance (see drawing 31 of 36, "Typical Sections", in Appendix 'B') although OPA 14 indicates an 18.0 m road

allowance. Additionally, the South Service Road typical section does not indicate any space between the sidewalk/multi-use trail and the limit of the road allowance. While the Cole Engineering centreline location has been maintained, a 16.0 m cross-section is reimagined. A conceptual road cross-section has been developed and is provided in Appendix 'G'. This road cross-section has been designed in collaboration with the developer's traffic consultant, BA Group.

2.1.1 Conceptual South Service Road Municipal Services

Storm sewers, sanitary sewers, and watermains will be provided in standard locations within the realigned South Service Road. The existing 600 mm diameter trunk sanitary sewer that is within the easement through the property will be relocated to the newly built South Service Road and the easement eliminated. Catchbasins and local storm sewers will be designed to collect and convey runoff from all storm events up to and including the 100-year. Services will connect to existing municipal services at the future intersection of South Service Road and Argus Road. The conceptual design maintains the existing sanitary, water, and stormwater catchment boundaries.

A Conceptual Servicing Design for South Service Road is provided (refer to Drawing S2).

A landowner's consortium and the Town of Oakville have engaged a consultant to prepare an Area Servicing Plan (ASP) which is being prepared for the entire Midtown Area and may evaluate how this proposed servicing design meets the overall servicing strategy for the entire Midtown core. The ASP should consider conceptual designs presented here and coordination should be undertaken refining this design though that process.

2.1.2 Conceptual South Service Road Stormwater Management

The realigned South Service Road will be designed with full stormwater management controls for quantity, quality, and water balance. The Town of Oakville requirements for stormwater management are set out in the Midtown Oakville EA Study (June 2014).

The applicable criteria are as follows:

1. Stormwater quantity Control (Peak Flow Control)

   Utilize the Midtown Oakville EA Study hydrology model to demonstrate that the target flows are met for each subwatershed. Per the Midtown EA, the proposed road is to drain to Sixteen Mile Creek (Figure DAP-2). As there are no existing flood concerns for Sixteen Mile Creek in the study area, peak runoff rates from the development are to be controlled to existing rates. In addition to meeting the flows, a minimum storage requirement is 68.2 m^3/ha.

2. Stormwater Runoff Volume Reduction (Water Balance)

   Provide retention of 5mm over the entire site area of the proposed development as per City of Toronto's Wet Weather Flow Management Guidelines (November 2006); or,

   Retain stormwater onsite to achieve an equivalent annual volume of infiltration as pre-development conditions, as per Section 3.2 of the MOE Stormwater Management Planning and Design Manual (March 2003)

3. Stormwater Quality Control

   Achieve Enhanced Level 1 Protection, as per the Ministry of Environments Stormwater Management Planning and Design Manual (March 2003).

The stormwater management criteria must meet the objectives of the Midtown EA (Appendix J-Stormwater Management Report) as well as any updated Town of Oakville Stormwater Management Requirements.

Preliminary stormwater management calculations estimate a total of 91 m^3 of storage is required to control the 100-year post-development runoff to the 5-year pre-development peak flow.

These stormwater management controls can be implemented through a variety of measures within the right-of-way such as underground stormwater chambers, low-impact developments, hydrodynamic separators, and/or membrane filtration devices.

A Conceptual Servicing Design for South Service Road which achieves this drainage pattern and fulfills the necessary criteria is provided (refer to Drawing S2).

2.2 Argus Road

Argus Road is proposed to be widened from a 20 m cross-section to a 27 m cross-section generally along the same centreline. The proposed widening is shared equally, 3.5 m to both the north and south properties.

The Midtown EA previously presented a "swoop" through the bend of Argus, but through discussion with Town staff, the "swoop" is no longer proposed.

A conceptual road cross-section has been developed and is provided in Appendix 'G'. At this time, no changes to the alignment of the existing municipal services are proposed. The municipal servicing design will be progressed and may be modified through the Area Servicing Plan, currently being undertaken through the Town.

3.0 MUNICIPAL WATER

The subject property will be serviced for water through the local water infrastructure on the adjacent roads. The current ASP notes there is sufficient water supply for the 2031 growth scenario, no major infrastructure is required to support development in this timeframe.

3.1 Existing Municipal Water

3.1.1 Existing Linear Infrastructure

There is an existing 900 mm diameter trunk CPP (Concrete Pressure Pipe) along the centreline of Argus Road. There is a 300 mm diameter PVC watermain on the south side of Argus Road. Record drawings (Appendix 'F') indicate a water service connection for the property from the 300 mm diameter watermain in Argus Road. The topographic survey and a field visit confirmed the presence of a valve near the property line.

There is an existing 500 mm diameter CPP trunk watermain along the south side of South Service Road within Pressure Zone 2.

Fire hydrants exist on the north and south sides of Argus Road as well as on South Service Road. Flow tests will be arranged to confirm the capacity of the existing systems and this report will be updated with the results when they are made available.

3.1.2 Existing Water Demands

Using the development area and Region of Halton design criteria (90 persons per ha for commercial), the existing domestic water usage is estimated and summarized below (see Appendix 'C' for supporting calculations).

Table 1: Existing Water Demands (L/min)

Average Daily Demand	26
Minimum Hourly Demand	26
Maximum Hourly Demand	60
Maximum Daily Demand	60

3.2 Proposed Municipal Water

All proposed services must be in accordance with the Ontario Building Code, Town of Oakville, and Region of Halton standards and requirements. A copy of the Preliminary Servicing Plan (S1) is included in Appendix 'G' and should be read in conjunction with this report.

3.2.1 Proposed Linear Infrastructure

Proposed water services consist of a 200 mm diameter fire, 150 mm diameter domestic service for the residential units, and 100 mm diameter domestic for non-residential space. Based on the heights of the buildings, a second fire service is provided as required by the OBC.

There are existing municipal hydrants within 40 m of each tower. The proposed location of the fire department connection (siamese connection) for each tower will need to be located within 45 m of a fire hydrant. Further detailed design will be completed at a later stage.

3.2.2 Proposed Water Demands

Using the development area and Region of Halton design criteria (90 persons per ha for commercial and 285 persons per ha for high-density residential), the domestic water usage is estimated and summarized below (see Appendix 'C' for supporting calculations). The fire flow is estimated for demand purposes only using the Fire Underwriter's Survey methodology and should be confirmed by a sprinkler consultant at the building permit stage.

Table 2: Estimated Water Demands (L/min)

Average Daily Demand	87
Minimum Hourly Demand	87
Maximum Hourly Demand	310
Maximum Daily Demand	195
Estimated Fire Demand (FUS 1999)	12,000
Maximum Daily Plus Fire Demand	12,195

4.0 MUNICIPAL WASTEWATER

The subject property will be serviced for wastewater through the local wastewater infrastructure on Argus Road. The current ASP notes capacity concerns for the 2031 growth scenario, and potentially some required downstream infrastructure upgrades. It is anticipated that the servicing capacity issues will be addressed in the new ASD.

All proposed services must be in accordance with the Ontario Building Code, Town of Oakville and Region of Halton standards and requirements. A copy of the preliminary Servicing Plan is included in Appendix 'B' and should be read in conjunction with this report. Existing and proposed servicing is discussed in further detail below.

4.1 Existing Municipal Wastewater

4.1.1 Existing Linear Infrastructure

There is an existing 750 mm diameter PVC sanitary sewer flowing west along the east west leg of Argus Road. This sewer drains south down Argus Road to a 600 mm PVC sanitary sewer.

The site is currently serviced through a 200 mm diameter service lateral running within an abandoned 600 mm diameter sanitary sewer which connects to the existing 600 mm diameter sanitary sewer running north-south on Argus Road.

There is an existing 600 mm diameter CPP trunk sewer running through the east portion of the site within an easement. This sewer conveys sanitary flows from existing residential lands north of the QEW. The 600 mm diameter sewer conveys flows to the 750 mm diameter sewer on the east west leg of Argus Road.

4.1.2 Existing Wastewater Demands

Using the development area and Region of Halton design criteria for commercial lands (90 persons per hectare), the estimated existing sanitary discharge is determined with 139 persons and 275 m^3/cap. day (see Appendix 'D' for supporting calculations).

Table 3: Estimated Existing Wastewater Flow (L/s)

Average Daily Dry Weather Flow	0.44
Modified Harmon Peaking Factor	4.20
Infiltration Allowance (0.286 L/s-ha)	0.44
Peak Flow	2.25

4.2 Proposed Municipal Wastewater

All proposed services must be in accordance with the Ontario Building Code, Town of Oakville, and Region of Halton standards and requirements. A copy of the Preliminary Servicing Plan is included in Appendix 'G' and should be read in conjunction with this report.

4.2.1 Proposed Service Connections

A new 300 mm diameter PVC sanitary lateral connected to a new property line inspection manhole is proposed to service the development. The lateral will replace the existing 200 mm sanitary lateral within the abandoned 600 mm sanitary sewer and connect to the 600 mm diameter sanitary sewer on Argus Road and drains south to Cross Avenue.

4.2.2 Proposed Wastewater Demands

Using the development area and Region of Halton design criteria for commercial (based on floor area using unit rate, 90 persons per hectare) and high-rise residential (apartments exceeding six-storeys, 285 persons per hectare), the estimated proposed sanitary discharge is determined with 109 persons and 275 m^3/cap. day (see Appendix 'D' for supporting calculations).

Table 4: Estimated Proposed Wastewater Flow (L/s)

Average Daily Dry Weather Flow	1.40
Modified Harmon Peaking Factor	4.05
Infiltration Allowance (0.286 L/s-ha)	0.35
Peak Flow	5.15

5.0 STORM DRAINAGE AND STORMWATER MANAGEMENT

5.1 Existing Storm Drainage

The existing site slopes generally from north to south, at an average slope at 0.5%. As mentioned, the site is currently occupied by a hotel and paved parking lot, all of which will be removed as part of the development. The existing parking lot drains using a series of catchbasins, which connect to a manhole near the southeast corner of the property. This manhole is connected to an existing 300 mm diameter storm sewer draining to the 375 mm diameter storm sewer on Argus Road. This sewer travels south through 570 Trafalgar Avenue, west through 571 & 587 Argus Road, and south, down Argus Road to Cross Avenue. The storm sewer along Argus Road drains west and outlets to 16 Mile Creek.

5.1.1 Existing Storm Service Connection

The existing site has a 300 mm diameter storm connection to a property line manhole in the southeast corner of the site. This manhole is connected to an existing 300 mm diameter storm sewer draining to the 375 mm diameter storm sewer on Argus Road. This sewer travels south through 570 Trafalgar Road, west through 571 & 587 Argus Road, and south, down Argus Road to Cross Avenue. The storm sewer along Argus Road drains west and outlets to 16 Mile Creek.

5.2 Proposed Storm Drainage

5.2.1 Proposed Storm Service Connection

A 375 mm diameter PVC storm connection along with property line inspection manhole will connect to the proposed storm sewer in South Service Road. This storm sewer connects to the

existing 375mm diameter storm sewer which services the site under pre-development conditions. The existing property line manhole and 300 mm diameter storm connection will be removed.

5.3 Stormwater Management

The Town of Oakville requirements for stormwater management are set out in the Midtown Oakville EA Study (June 2014).

The applicable criteria are as follows:

1. Stormwater Quantity Control (Peak Flow Control)

   Utilize the Midtown Oakville EA Study hydrology model to demonstrate that the target flows are met for each subwatershed. Per the Midtown EA, the proposed development is to drain to Sixteen Mile Creek (Figure DAP-2). As there are no existing flood concerns for Sixteen Mile Creek in the study area, peak runoff rates from the development are to be controlled to existing rates. In addition to meeting the flows, a minimum storage requirement is 68.2 m^3/ha.

2. Stormwater Runoff Volume Reduction (Water Balance)

   Provide retention of 5 mm over the entire area of the proposed development as per the City of Toronto's Wet Weather Flow Management Guidelines (November 2006); or,

   Retain stormwater onsite to achieve an equivalent annual volume of infiltration as per-development conditions, as per Section 3.2 of the MOE Stormwater Management Planning and Design Manual (March 2003).

3. Stormwater Quality Control

   Achieve Enhanced Level 1 Protection, as per the Ministry of Environment's Stormwater Management Planning and Design Manual (March 2003).

5.3.1 Stormwater Quantity Control (Peak Flow Control)

Pre-development flow rates are calculated using the Town of Oakville IDF curves, a runoff coefficient of C=0.5, and a development area of 1.21 ha. Post-development flow rates are calculated using the same IDF data, runoff coefficient of C=0.9 and the same area. In the determination of the post-development runoff coefficient, we have not accounted for any landscaping in the interior courtyard, or rooftop amenity space to remain conservative. This will

be refined as detailed design progresses. A conservative value of post-development runoff coefficient ensures adequate sizing of the stormwater management tank during the preliminary design stage.

Runoff from the entire site will outlet to the minor system on South Service Road. Therefore, post-development peak flows must be controlled to the 5-year pre-development peak flow to respect capacity of the minor system.

To control stormwater runoff from the site, an underground stormwater tank system is proposed. The proposed stormwater management tank system will pump stormwater to the storm connection to South Service Road. The maximum pump release rate is the 5-year pre-development peak flow. A comparison of pre- and post-development flow is provided in the table below.

Table 5: Stormwater Flows

Return	Pre-Dev Total (L/s)	Post-Dev Release (L/s)	Storage Required (m^3)
5-yr	192	192	102.6
10-yr	226	192	150.0
25-yr	300	192	254.4
50-yr	367	192	314.8
100-yr	421	192	368.2

The minimum storage requirement per the Midtown Oakville EA is 69.6 m^3. The post- to pre-development storage requirements yield a higher storage requirement and therefore govern.

The runoff coefficient and associated tank sizing may be refined as detailed design progresses.

Runoff from the site will be collected through the roof drains and surface drains. Plumbing interior to the building and underground parking structure (designed by the mechanical engineer) will direct runoff to the stormwater tank located in the underground parking structure and must be sized to capture the 100-year event. An emergency overland flow route is provided through the site to Argus Road. An emergency overflow from the tank must be designed in coordination with the mechanical consultant at the detailed design stage but will likely discharge to grade in the general vicinity of the tank.

5.3.2 Stormwater Runoff Volume Reduction (Water Balance)

A retention of 5 mm is required as per the Midtown EA hydrology study. However, in discussions with the Town, staff have recommended using a retention of 25 mm (refer to correspondence in Appendix 'G'). Accordingly, we have estimated a 25 mm retention volume of 302.2 m^3 which must be re-used.

The stormwater management tank has been sized to store this volume in addition to the volume required for peak flow control. There are limited opportunities for infiltration, so the re-use water will be used for onsite irrigation or other acceptable best efforts. Additional details will be provided through detailed design.

5.3.3 Stormwater Quality Control

The Town of Oakville requires that the development meet MECP Enhanced protection (80% long-term removal of TSS). A Stormceptor Jellyfish (or approved equivalent) is proposed to treat sediment laden runoff from the vehicular and at-grade pedestrian areas only. Clean roof drainage is to bypass the filtration system. The Jellyfish is to be located upstream of the stormwater management tank and is provided with an outlet pipe and an overflow weir, both directed to the tank. An adequately maintained filtration system provides 80% long-term removal of TSS. Sizing of the Jellyfish will be undertaken as the detailed design progresses.

6.0 GROUNDWATER

A Hydrogeological Investigation was performed by B.I.G. Consulting Inc. (dated February 2023) in which the long-term peak groundwater flow rate into the parking garage sub drains after initial dewatering stages was estimated to be 75,000 L/day (0.87 L/s). These flows may be treated and may be to the stormwater management tank system in the underground parking garage before being discharged using the proposed stormwater lateral.

In the event that permanent dewatering is not permitted, the proposed building may be designed and supported by "tanked" water-proofed continuous raft foundation without permanent dewatering.

Refer to the Hydrogeological Investigation prepared by B.I.G. Consulting Inc. (BIGC-ENV-554A) dated February 2023 for details.

7.0 SITE GRADING

The proposed grading must ensure that drainage from the 100-year event is collected by the building's mechanical system and conveyed to the stormwater management tank. All building air intake and exhaust shafts must be protected from overland flow by being set a minimum of 0.2 m above the spill elevation.

The proposed property line elevations adjacent to South Service Road have been set considering the preliminary future road centerline elevations as set out in the Midtown Oakville EA.

Proposed grades along the south limit of the property have been set considering the future road alignment of Argus Road and are generally compatible with the existing grades.

A copy of the Preliminary Grading Plan is provided in Appendix 'G' and should be read in conjunction with this report.

8.0 EROSION AND SEDIMENT CONTROL

Erosion and sediment controls must be installed prior to the commencement of any construction. The erosion and sediment control devices should follow the Erosion and Sediment Control Guidelines for Urban Construction as set out by the Greater Golden Horseshoe Conservation Authority. Erosion and sediment control measures may be implemented as follows:

- Double wrapped catch basins: The proposed storm sewer catch basins and catch basin manholes located within the subject site and adjacent municipal roads shall be double wrapped in a woven geotextile material. Woven geotextile material is to be replaced periodically when accumulated sediments interfere with drainage. The abutting streets should be monitored and if required, swept to mitigate the accumulation of tracked material on the roads on a routine basis in keeping with good construction housekeeping practices.
- Gravel Access Pad: A gravel access (mud) mat will be installed at the entrance to the construction zone to prevent mud tracking from the site to the municipal roads.
- Silt Fencing: Silt fence will be installed along the property line to intercept sheet flow.

A detailed erosion and sediment control plan and phasing plan (if applicable) will be developed through detailed design and provided at the site plan stage.

9.0 CONCLUSION

The information presented in this Functional Servicing Report demonstrates that the proposed development can be serviced by the existing and future adjacent infrastructure for water, wastewater, stormwater and can meet the Town of Oakville stormwater management criteria.

The following is a summary of the report findings:

- As part of the Midtown Oakville EA, the Argus Road and South Service Road realignment and dedications are required to develop the property.
- Separate stormwater controls are proposed for runoff from South Service Road.
- There is existing municipal water infrastructure adjacent to the site that can readily service the site. The proposed average daily water demand for the site is 84 L/min with an estimated maximum daily plus fire demand of 12,189 L/min.
- There is existing wastewater infrastructure servicing on Argus Road adjacent to the site. The proposed development will be serviced off this existing infrastructure by way of a 300 mm diameter sanitary lateral. The estimated peak wastewater flow based on Region of Halton criteria is 6.0 L/s for the entire site.
- Stormwater quantity controls will be provided by controlling post development peak flows to the 5-year pre-development peak flow. Storage will be provided in a stormwater tank located in the underground parking structure. Stormwater will be pumped to a maximum release rate of 192 L/s to South Service Road by way of a 375 mm diameter storm sewer connection. The required storage volume is 368.2 m^3.
- The water balance criteria of 25 mm is equivalent to 302.2 m^3. This water will also be stored in the underground stormwater tank and will be re-used for irrigation and other best efforts to be determined at the detailed design stage.
- The stormwater tank will have a minimum capacity of 670.4 m^3, to store the required quantity and water balance requirements.
- Water quality criteria is met by means of a stormwater filtration system (Jellyfish unit), placed upstream of the stormwater tank.
- Grading of the site is designed to ensure runoff from the 100-year event is captured, and there is an emergency overland flow route.

- Erosion and sediment controls will be implemented during construction in accordance with the Erosion and Sediment Control Guidelines for Urban Construction as set out by the Greater Golden Horseshoe Conservation Authority.

Based on the above, we support the proposed development from a civil engineering perspective for rezoning and Official Plan Amendment.

PREPARED BY TRAFALGAR ENGINEERING LTD.

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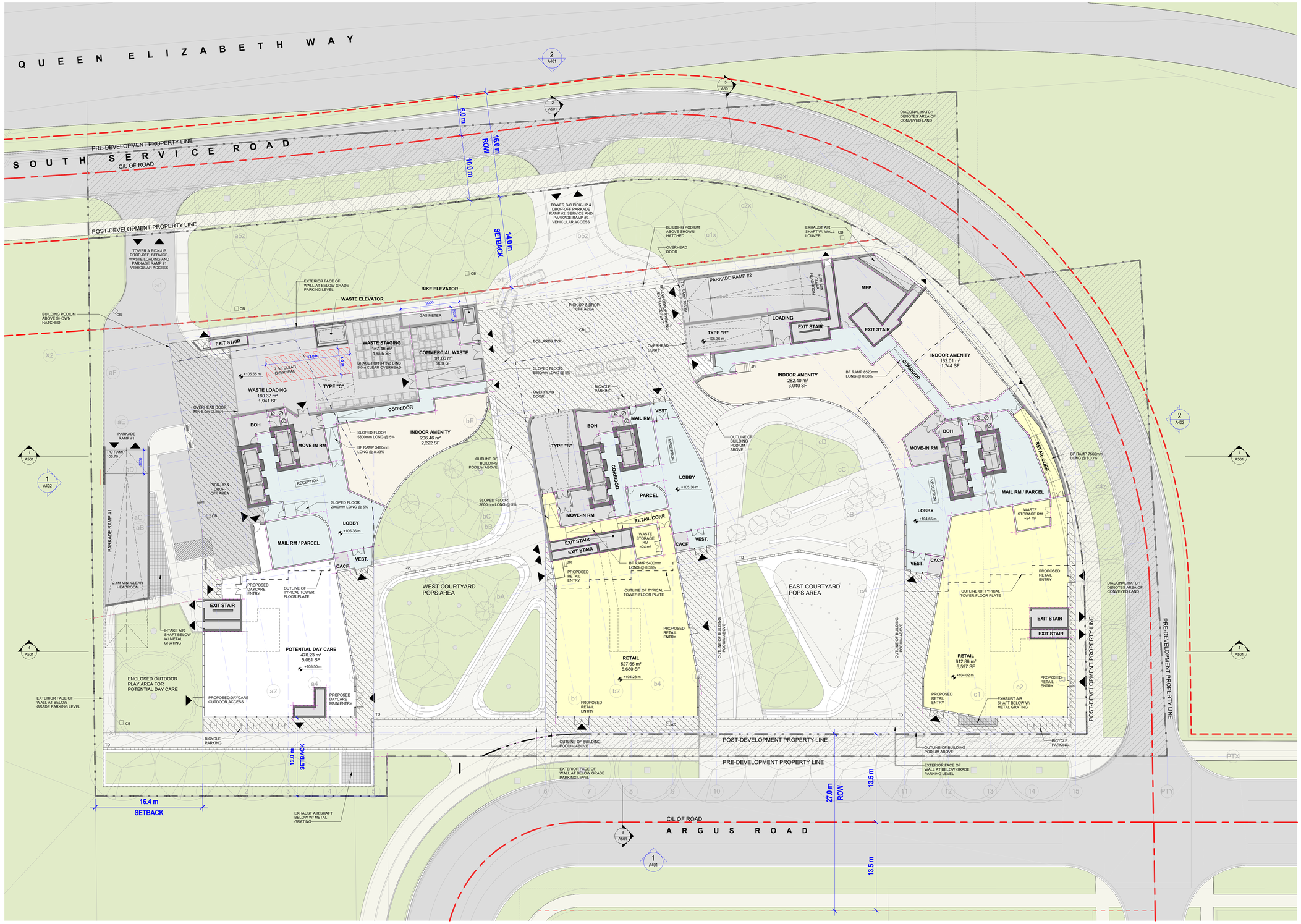
APPENDIX ‘A’



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This drawing shall not be used for construction purposes unless countersigned

Teeple Architects Inc.

NO.	DATE:	ISSUED FOR:
1	2023-03-20	ISSUED FOR OPA/ZBA

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LEVEL 1 PLAN

Author	Checker		
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22-106	1 : 200	ARCH E	2023-03-20
PROJ NO	SCALE	FORMAT	PLOT DATE

A204

BUILDING STATISTICS - OVERALL

GCA BY LEVEL (BELOW GRADE)

LEVELS	AREA PER LEVEL (SM)	AREA PER LEVEL (SF)	NO. OF LEVELS TYPICAL	TOTAL AREA (SM)	TOTAL AREA (SF)
LEVEL P6	9,755.39 m^2	105,006 SF	1	9,755.39 m^2	105,006 SF
LEVEL P5	9,755.38 m^2	105,006 SF	1	9,755.38 m^2	105,006 SF
LEVEL P4	9,753.51 m^2	104,986 SF	1	9,753.51 m^2	104,986 SF
LEVEL P3	9,753.19 m^2	104,982 SF	1	9,753.19 m^2	104,982 SF
LEVEL P2	9,750.45 m^2	104,953 SF	1	9,750.45 m^2	104,953 SF
LEVEL P1	9,734.68 m^2	104,783 SF	1	9,734.68 m^2	104,783 SF
TOTAL	58,502.60 m^2	629,717 SF	1	58,502.60 m^2	629,717 SF

AREA SUMMARY (BELOW GRADE)

LEVELS	GCA (m^2)	GCA (SF)	DEDUCTION (m^2)	DEDUCTION (SF)	RESIDENTIAL GFA (m^2)	RESIDENTIAL GFA (SF)	RETAIL GFA (m^2)	RETAIL GFA (SF)	INDOOR AMENITY (m^2)	INDOOR AMENITY (SF)	OUTDOOR AMENITY (m^2)	OUTDOOR AMENITY (SF)	GFA (m^2)	GFA (SF)
LEVEL P6	9,755.39 m^2	105,006 SF	9,589.91 m^2	103,225 SF	165.48 m^2	1,781 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	165.48 m^2	1,781 SF
LEVEL P5	9,755.38 m^2	105,006 SF	9,589.62 m^2	103,222 SF	165.76 m^2	1,784 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	165.76 m^2	1,784 SF
LEVEL P4	9,753.51 m^2	104,986 SF	9,587.93 m^2	103,204 SF	165.58 m^2	1,782 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	165.58 m^2	1,782 SF
LEVEL P3	9,753.19 m^2	104,982 SF	9,589.13 m^2	103,217 SF	164.06 m^2	1,766 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	164.06 m^2	1,766 SF
LEVEL P2	9,750.45 m^2	104,953 SF	9,586.21 m^2	103,185 SF	164.24 m^2	1,768 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	164.24 m^2	1,768 SF
LEVEL P1	9,734.68 m^2	104,783 SF	8,908.51 m^2	95,890 SF	826.17 m^2	8,893 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	826.17 m^2	8,893 SF
TOTAL	58,502.60 m^2	629,717 SF	56,851.31 m^2	611,942 SF	1,651.29 m^2	17,774 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,651.29 m^2	17,774 SF

UNIT SUMMARY

UNIT CATEGORY	MINIMUM (SF)	MAXIMUM (SF)	COUNT	%
1B	461 SF	1,198 SF	1218	70%
2B	734 SF	1,164 SF	455	26%
3B	659 SF	1,394 SF	77	4%
TOTAL			1750	

UNIT SUMMARY (PER LEVEL)

LEVEL	UNIT CATEGORY	MINIMUM (SF)	MAXIMUM (SF)	COUNT
LEVEL 02	1B	500 SF	832 SF	28
LEVEL 02	2B	734 SF	1,164 SF	13
LEVEL 02	3B	904 SF	1,349 SF	7
				48
LEVEL 03	1B	527 SF	1,198 SF	28
LEVEL 03	2B	767 SF	908 SF	11
LEVEL 03	3B	904 SF	1,346 SF	5
				44
LEVEL 04	1B	527 SF	832 SF	35
LEVEL 04	2B	767 SF	935 SF	18
LEVEL 04	3B	736 SF	1,346 SF	8
				61
LEVEL 05	1B	529 SF	832 SF	37
LEVEL 05	2B	769 SF	908 SF	11
LEVEL 05	3B	659 SF	1,349 SF	14
				62
LEVEL 06	1B	461 SF	832 SF	42
LEVEL 06	2B	774 SF	924 SF	7
LEVEL 06	3B	904 SF	1,349 SF	9
				58
LEVEL 07	1B	529 SF	850 SF	33
LEVEL 07	2B	786 SF	937 SF	12
LEVEL 07	3B	1,015 SF	1,271 SF	5
				50
LEVEL 08	1B	529 SF	850 SF	34
LEVEL 08	2B	786 SF	905 SF	6
LEVEL 08	3B	1,045 SF	1,394 SF	6
				46
LEVEL 09	1B	529 SF	818 SF	28
LEVEL 09	2B	757 SF	1,020 SF	11
LEVEL 09	3B	1,008 SF	1,175 SF	4
				43
LEVEL 10	1B	529 SF	850 SF	20
LEVEL 10	2B	832 SF	881 SF	4
LEVEL 10	3B	906 SF	1,171 SF	9
				33
LEVEL 11	1B	488 SF	846 SF	24
LEVEL 11	2B	779 SF	998 SF	11
LEVEL 11	3B	1,003 SF	1,053 SF	2
				37
LEVEL 12	1B	548 SF	852 SF	19
LEVEL 12	2B	886 SF	937 SF	3
LEVEL 12	3B	937 SF	1,179 SF	8
				30
LEVEL 13	1B	523 SF	815 SF	23
LEVEL 13	2B	813 SF	976 SF	9
				32
LEVEL 14 (TYP)	1B	523 SF	815 SF	867
LEVEL 14 (TYP)	2B	813 SF	976 SF	339
				1206
TOTAL				1750

GCA BY LEVEL (ABOVE GRADE)

LEVELS	AREA PER LEVEL (SM)	AREA PER LEVEL (SF)	NO. OF LEVELS TYPICAL	TOTAL AREA (SM)	TOTAL AREA (SF)
LEVEL 01	4,761.96 m^2	51,257 SF	1	4,761.96 m^2	51,257 SF
LEVEL 02	5,429.62 m^2	58,444 SF	1	5,429.62 m^2	58,444 SF
LEVEL 03	5,730.13 m^2	61,679 SF	1	5,730.13 m^2	61,679 SF
LEVEL 04	5,473.08 m^2	58,912 SF	1	5,473.08 m^2	58,912 SF
LEVEL 05	5,520.60 m^2	59,423 SF	1	5,520.60 m^2	59,423 SF
LEVEL 06	5,273.17 m^2	56,760 SF	1	5,273.17 m^2	56,760 SF
LEVEL 07	4,167.33 m^2	44,857 SF	1	4,167.33 m^2	44,857 SF
LEVEL 08	3,907.42 m^2	42,059 SF	1	3,907.42 m^2	42,059 SF
LEVEL 09	3,593.85 m^2	38,684 SF	1	3,593.85 m^2	38,684 SF
LEVEL 10	3,328.30 m^2	35,826 SF	1	3,328.30 m^2	35,826 SF
LEVEL 11	3,037.95 m^2	32,700 SF	1	3,037.95 m^2	32,700 SF
LEVEL 12	2,774.16 m^2	29,861 SF	1	2,774.16 m^2	29,861 SF
LEVEL 13	2,551.35 m^2	27,462 SF	1	2,551.35 m^2	27,462 SF
LEVEL 14 + ABOVE	2,551.33 m^2	27,462 SF	32 / 46 / 38	96,100.34 m^2	1,034,415 SF
TOTAL	58,100.23 m^2	625,386 SF		151,649.24 m^2	1,632,339 SF

AREA SUMMARY (ABOVE GRADE)

LEVELS	GCA (m^2)	GCA (SF)	DEDUCTION (m^2)	DEDUCTION (SF)	RESIDENTIAL GFA (m^2)	RESIDENTIAL GFA (SF)	RETAIL GFA (m^2)	RETAIL GFA (SF)	INDOOR AMENITY (m^2)	INDOOR AMENITY (SF)	OUTDOOR AMENITY (m^2)	OUTDOOR AMENITY (SF)	GFA (m^2)	GFA (SF)
LEVEL 01	4,761.96 m^2	51,257 SF	1,263.78 m^2	13,603 SF	1,754.52 m^2	18,885 SF	1,743.66 m^2	18,769 SF	650.87 m^2	7,005.86 SF	0.00 m^2	0.00 SF	3,498.18 m^2	37,654 SF
LEVEL 02	5,429.62 m^2	58,444 SF	1,375.42 m^2	14,805 SF	4,054.20 m^2	43,639 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	4,054.20 m^2	43,639 SF
LEVEL 03	5,730.13 m^2	61,679 SF	2,192.21 m^2	23,597 SF	3,537.92 m^2	38,082 SF	0.00 m^2	0 SF	1,970.46 m^2	21,209.84 SF	386.53 m^2	4,160.61 SF	3,537.92 m^2	38,082 SF
LEVEL 04	5,473.08 m^2	58,912 SF	231.63 m^2	2,493 SF	5,241.46 m^2	56,419 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	5,241.46 m^2	56,419 SF
LEVEL 05	5,520.60 m^2	59,423 SF	231.64 m^2	2,493 SF	5,288.96 m^2	56,930 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	5,288.96 m^2	56,930 SF
LEVEL 06	5,273.17 m^2	56,760 SF	390.82 m^2	4,207 SF	4,882.35 m^2	52,553 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	4,882.35 m^2	52,553 SF
LEVEL 07	4,167.33 m^2	44,857 SF	250.84 m^2	2,700 SF	3,916.49 m^2	42,157 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	3,916.49 m^2	42,157 SF
LEVEL 08	3,907.42 m^2	42,059 SF	228.53 m^2	2,460 SF	3,678.88 m^2	39,599 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	3,678.88 m^2	39,599 SF
LEVEL 09	3,593.85 m^2	38,684 SF	231.04 m^2	2,487 SF	3,362.80 m^2	36,197 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	3,362.80 m^2	36,197 SF
LEVEL 10	3,328.30 m^2	35,826 SF	396.78 m^2	4,271 SF	2,931.53 m^2	31,555 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	2,931.53 m^2	31,555 SF
LEVEL 11	3,037.95 m^2	32,700 SF	226.52 m^2	2,438 SF	2,811.43 m^2	30,262 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	2,811.43 m^2	30,262 SF
LEVEL 12	2,774.16 m^2	29,861 SF	224.55 m^2	2,417 SF	2,549.61 m^2	27,444 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	2,549.61 m^2	27,444 SF
LEVEL 13	2,551.35 m^2	27,462 SF	222.75 m^2	2,398 SF	2,328.60 m^2	25,065 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	2,328.60 m^2	25,065 SF
LEVEL 14 + ABOVE	96,100.34 m^2	1,034,415 SF	8,390.26 m^2	90,312 SF	87,710.08 m^2	944,103 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	87,710.08 m^2	944,103 SF
TOTAL	151,649.24 m^2	1,632,339 SF	15,856.75 m^2	170,681 SF	134,048.83 m^2	1,442,890 SF	1,743.66 m^2	18,769 SF	2,621.32 m^2	28,215.70 SF	386.53 m^2	4,160.61 SF	135,792.48 m^2	1,461,658 SF

AREA BY TYPE

AREA TYPE	TOTAL AREA (SM)	TOTAL AREA (SF)
INDOOR AMENITY	2,621.32 m^2	28,216 SF
OTHER	10,615.57 m^2	114,265 SF
OUTDOOR AMENITY	386.53 m^2	4,161 SF
RES. COMMON AREA	15,002.26 m^2	161,483 SF
RES. SERVICE	2,405.90 m^2	25,897 SF
RETAIL LEASABLE	1,656.01 m^2	17,825 SF
RETAIL SERVICE	87.65 m^2	943 SF
SALEABLE	116,640.67 m^2	1,255,510 SF

OVERALL VEHICLE PARKING SCHEDULE

LEVEL	PARKING TYPE	COUNT
LEVEL P1	COMMERCIAL - STANDARD (5700 x 2700)	18
LEVEL P1	VISITOR - ACCESSIBLE A (5700 x 3650)	3
LEVEL P1	VISITOR - ACCESSIBLE B (5700 x 2700)	3
LEVEL P1	VISITOR - STANDARD (5700 x 2700)	139
LEVEL P1		163
LEVEL P2	VISITOR - ACCESSIBLE A (5700 x 3650)	3
LEVEL P2	VISITOR - ACCESSIBLE B (5700 x 2700)	3
LEVEL P2	VISITOR - STANDARD (5700 x 2700)	206
LEVEL P2		212
LEVEL P3	RESIDENTIAL - ACCESSIBLE A (5700 x 3650)	3
LEVEL P3	RESIDENTIAL - ACCESSIBLE B (5700 x 2700)	3
LEVEL P3	RESIDENTIAL- STANDARD (5700 x 2700)	210
LEVEL P3		216
LEVEL P4	RESIDENTIAL - ACCESSIBLE A (5700 x 3650)	3
LEVEL P4	RESIDENTIAL - ACCESSIBLE B (5700 x 2700)	3
LEVEL P4	RESIDENTIAL- STANDARD (5700 x 2700)	210
LEVEL P4		216
LEVEL P5	RESIDENTIAL - ACCESSIBLE A (5700 x 3650)	3
LEVEL P5	RESIDENTIAL - ACCESSIBLE B (5700 x 2700)	3
LEVEL P5	RESIDENTIAL- STANDARD (5700 x 2700)	210
LEVEL P5		216
LEVEL P6	RESIDENTIAL - ACCESSIBLE A (5700 x 3650)	1
LEVEL P6	RESIDENTIAL - ACCESSIBLE B (5700 x 2700)	1
LEVEL P6	RESIDENTIAL- STANDARD (5700 x 2700)	230
LEVEL P6		232
TOTAL PARKING		1255

RESIDENTIAL VEHICLE PARKING

LEVEL	TYPE	TOTAL
LEVEL P3	RESIDENTIAL - ACCESSIBLE A (5700 x 3650)	3
LEVEL P3	RESIDENTIAL - ACCESSIBLE B (5700 x 2700)	3
LEVEL P3	RESIDENTIAL- STANDARD (5700 x 2700)	210
LEVEL P3		216
LEVEL P4	RESIDENTIAL - ACCESSIBLE A (5700 x 3650)	3
LEVEL P4	RESIDENTIAL - ACCESSIBLE B (5700 x 2700)	3
LEVEL P4	RESIDENTIAL- STANDARD (5700 x 2700)	210
LEVEL P4		216
LEVEL P5	RESIDENTIAL - ACCESSIBLE A (5700 x 3650)	3
LEVEL P5	RESIDENTIAL - ACCESSIBLE B (5700 x 2700)	3
LEVEL P5	RESIDENTIAL- STANDARD (5700 x 2700)	210
LEVEL P5		216
LEVEL P6	RESIDENTIAL - ACCESSIBLE A (5700 x 3650)	1
LEVEL P6	RESIDENTIAL - ACCESSIBLE B (5700 x 2700)	1
LEVEL P6	RESIDENTIAL- STANDARD (5700 x 2700)	230
LEVEL P6		232
TOTAL PARKING		880

VISITOR VEHICLE PARKING

LEVEL	TYPE	TOTAL
LEVEL P1	VISITOR - ACCESSIBLE A (5700 x 3650)	3
LEVEL P1	VISITOR - ACCESSIBLE B (5700 x 2700)	3
LEVEL P1	VISITOR - STANDARD (5700 x 2700)	139
LEVEL P1		145
LEVEL P2	VISITOR - ACCESSIBLE A (5700 x 3650)	3
LEVEL P2	VISITOR - ACCESSIBLE B (5700 x 2700)	3
LEVEL P2	VISITOR - STANDARD (5700 x 2700)	206
LEVEL P2		212
TOTAL PARKING		357

COMMERCIAL OR NON-RES. PARKING

LEVEL	TYPE	TOTAL
LEVEL P1	COMMERCIAL - STANDARD (5700 x 2700)	18
LEVEL P1		18
TOTAL PARKING		18

BICYCLE PARKING SCHEDULE

LEVEL	TYPE	UNIT TOTAL	TOTAL COUNT
LEVEL 02	BICYCLE STACKER - LONG-TERM RESIDENTIAL (600x1800)	518	1036
LEVEL 02		518	1036
LEVEL P1	BICYCLE STACKER - LONG-TERM RESIDENTIAL (600x1800)	138	276
LEVEL P1	BICYCLE STACKER - SHORT-TERM VISITOR (600x1800)	219	438
LEVEL P1		357	714
TOTAL PARKING		875	1750

BUILDING STATISTICS - TOWER A

GCA BY LEVEL (ABOVE GRADE) TOWER A

LEVELS	AREA PER LEVEL (SM)	AREA PER LEVEL (SF)	NO. OF LEVELS TYPICAL	TOTAL AREA (SM)	TOTAL AREA (SF)
LEVEL 01	1,538.72 m^2	16,563 SF	1	1,538.72 m^2	16,563 SF
LEVEL 02	1,357.60 m^2	14,613 SF	1	1,357.60 m^2	14,613 SF
LEVEL 03	979.97 m^2	10,548 SF	1	979.97 m^2	10,548 SF
LEVEL 04	1,874.73 m^2	20,179 SF	1	1,874.73 m^2	20,179 SF
LEVEL 05	1,899.44 m^2	20,445 SF	1	1,899.44 m^2	20,445 SF
LEVEL 06	1,758.13 m^2	18,924 SF	1	1,758.13 m^2	18,924 SF
LEVEL 07	1,293.85 m^2	13,927 SF	1	1,293.85 m^2	13,927 SF
LEVEL 08	1,222.14 m^2	13,155 SF	1	1,222.14 m^2	13,155 SF
LEVEL 09	1,138.46 m^2	12,254 SF	1	1,138.46 m^2	12,254 SF
LEVEL 10	1,064.41 m^2	11,457 SF	1	1,064.41 m^2	11,457 SF
LEVEL 11	990.32 m^2	10,660 SF	1	990.32 m^2	10,660 SF
LEVEL 12	912.27 m^2	9,820 SF	1	912.27 m^2	9,820 SF
LEVEL 13	850.56 m^2	9,155 SF	1	850.56 m^2	9,155 SF
LEVEL 14 TO 44	850.56 m^2	9,155 SF	31	26,367.35 m^2	283,816 SF
TOTAL	17,731.15 m^2	190,857 SF		43,247.94 m^2	465,517 SF

AREA SUMMARY (ABOVE GRADE) TOWER A

LEVELS	GCA (m^2)	GCA (SF)	DEDUCTION (m^2)	DEDUCTION (SF)	RESIDENTIAL GFA (m^2)	RESIDENTIAL GFA (SF)	RETAIL GFA (m^2)	RETAIL GFA (SF)	INDOOR AMENITY (m^2)	INDOOR AMENITY (SF)	OUTDOOR AMENITY (m^2)	OUTDOOR AMENITY (SF)	GFA (m^2)	GFA (SF)
LEVEL 01	1,538.72 m^2	16,563 SF	541.20 m^2	5,825 SF	527.30 m^2	5,676 SF	470.23 m^2	5,061 SF	206.46 m^2	2,222.29 SF	0.00 m^2	0.00 SF	997.52 m^2	10,737 SF
LEVEL 02	1,357.60 m^2	14,613 SF	351.54 m^2	3,784 SF	1,006.06 m^2	10,829 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,006.06 m^2	10,829 SF
LEVEL 03	979.97 m^2	10,548 SF	73.80 m^2	794 SF	906.16 m^2	9,754 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	906.16 m^2	9,754 SF
LEVEL 04	1,874.73 m^2	20,179 SF	80.10 m^2	862 SF	1,794.64 m^2	19,317 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,794.64 m^2	19,317 SF
LEVEL 05	1,899.44 m^2	20,445 SF	81.59 m^2	878 SF	1,817.85 m^2	19,567 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,817.85 m^2	19,567 SF
LEVEL 06	1,758.13 m^2	18,924 SF	114.75 m^2	1,235 SF	1,643.38 m^2	17,689 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,643.38 m^2	17,689 SF
LEVEL 07	1,293.85 m^2	13,927 SF	84.19 m^2	906 SF	1,209.66 m^2	13,021 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,209.66 m^2	13,021 SF
LEVEL 08	1,222.14 m^2	13,155 SF	76.80 m^2	827 SF	1,145.34 m^2	12,328 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,145.34 m^2	12,328 SF
LEVEL 09	1,138.46 m^2	12,254 SF	78.05 m^2	840 SF	1,060.41 m^2	11,414 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,060.41 m^2	11,414 SF
LEVEL 10	1,064.41 m^2	11,457 SF	117.71 m^2	1,267 SF	946.70 m^2	10,190 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	946.70 m^2	10,190 SF
LEVEL 11	990.32 m^2	10,660 SF	76.56 m^2	824 SF	913.77 m^2	9,836 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	913.77 m^2	9,836 SF
LEVEL 12	912.27 m^2	9,820 SF	75.15 m^2	809 SF	837.11 m^2	9,011 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	837.11 m^2	9,011 SF
LEVEL 13	850.56 m^2	9,155 SF	74.33 m^2	800 SF	776.23 m^2	8,355 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	776.23 m^2	8,355 SF
LEVEL 14 TO 44	26,367.35 m^2	283,816 SF	2,304.22 m^2	24,802 SF	24,063.13 m^2	259,013 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	24,063.13 m^2	259,013 SF
TOTAL	43,247.94 m^2	465,517 SF	4,130.00 m^2	44,455 SF	38,647.72 m^2	416,001 SF	470.23 m^2	5,061 SF	206.46 m^2	2,222.29 SF	0.00 m^2	0.00 SF	39,117.95 m^2	421,062 SF

UNIT SUMMARY TOWER A

UNIT CATEGORY	MINIMUM (SF)	MAXIMUM (SF)	COUNT	%
1B	523 SF	852 SF	360	70%
2B	767 SF	1,164 SF	127	25%
3B	659 SF	1,394 SF	26	5%
TOTAL			513	

UNIT SUMMARY (PER LEVEL) TOWER A

LEVEL	UNIT CATEGORY	MINIMUM (SF)	MAXIMUM (SF)	COUNT
LEVEL 02	1B	531 SF	832 SF	7
LEVEL 02	2B	773 SF	1,164 SF	4
LEVEL 02	3B	904 SF	1,073 SF	2
				13
LEVEL 03	1B	569 SF	832 SF	7
LEVEL 03	2B	780 SF	869 SF	3
LEVEL 03	3B	904 SF	1,073 SF	2
				12
LEVEL 04	1B	569 SF	832 SF	11
LEVEL 04	2B	767 SF	869 SF	6
LEVEL 04	3B	736 SF	1,073 SF	4
				21
LEVEL 05	1B	569 SF	832 SF	13
LEVEL 05	2B	837 SF	898 SF	2
LEVEL 05	3B	659 SF	1,073 SF	7
				22
LEVEL 06	1B	569 SF	832 SF	13
LEVEL 06	2B	837 SF	924 SF	3
LEVEL 06	3B	904 SF	1,073 SF	2
				18
LEVEL 07	1B	534 SF	850 SF	10
LEVEL 07	2B	832 SF	937 SF	4
LEVEL 07	3B	1,271 SF	1,271 SF	1
				15
LEVEL 08	1B	534 SF	850 SF	11
LEVEL 08	2B	832 SF	832 SF	1
LEVEL 08	3B	1,045 SF	1,394 SF	2
				14
LEVEL 09	1B	534 SF	818 SF	9
LEVEL 09	2B	832 SF	860 SF	2
LEVEL 09	3B	1,008 SF	1,175 SF	2
				13
LEVEL 10	1B	534 SF	850 SF	8
LEVEL 10	2B	832 SF	832 SF	1
LEVEL 10	3B	925 SF	1,010 SF	2
				11
LEVEL 11	1B	541 SF	846 SF	8
LEVEL 11	2B	870 SF	985 SF	4
				12
LEVEL 12	1B	557 SF	852 SF	7
LEVEL 12	2B	937 SF	937 SF	1
LEVEL 12	3B	1,093 SF	1,127 SF	2
				10
LEVEL 13	1B	523 SF	642 SF	8
LEVEL 13	2B	813 SF	928 SF	3
				11
LEVEL 14 (TO L44)	1B	523 SF	642 SF	248
LEVEL 14 (TO L44)	2B	813 SF	928 SF	93
				341
TOTAL				513

BUILDING STATISTICS - TOWER B

GCA BY LEVEL (ABOVE GRADE) TOWER B

LEVELS	AREA PER LEVEL (SM)	AREA PER LEVEL (SF)	NO. OF LEVELS TYPICAL	TOTAL AREA (SM)	TOTAL AREA (SF)
LEVEL 01	1,055.54 m^2	11,362 SF	1	1,055.54 m^2	11,362 SF
LEVEL 02	1,600.54 m^2	17,228 SF	1	1,600.54 m^2	17,228 SF
LEVEL 03	3,045.70 m^2	32,784 SF	1	3,045.70 m^2	32,784 SF
LEVEL 04	1,585.69 m^2	17,068 SF	1	1,585.69 m^2	17,068 SF
LEVEL 05	1,809.33 m^2	19,475 SF	1	1,809.33 m^2	19,475 SF
LEVEL 06	1,552.30 m^2	16,709 SF	1	1,552.30 m^2	16,709 SF
LEVEL 07	1,293.85 m^2	13,927 SF	1	1,293.85 m^2	13,927 SF
LEVEL 08	1,222.14 m^2	13,155 SF	1	1,222.14 m^2	13,155 SF
LEVEL 09	1,138.46 m^2	12,254 SF	1	1,138.46 m^2	12,254 SF
LEVEL 10	1,064.41 m^2	11,457 SF	1	1,064.41 m^2	11,457 SF
LEVEL 11	990.32 m^2	10,660 SF	1	990.32 m^2	10,660 SF
LEVEL 12	912.27 m^2	9,820 SF	1	912.27 m^2	9,820 SF
LEVEL 13	850.56 m^2	9,155 SF	1	850.56 m^2	9,155 SF
LEVEL 14 TO 58	850.56 m^2	9,155 SF	45	38,275.19 m^2	411,991 SF
TOTAL	18,971.66 m^2	204,209 SF		56,396.28 m^2	607,045 SF

AREA SUMMARY (ABOVE GRADE) TOWER B

LEVELS	GCA (m^2)	GCA (SF)	DEDUCTION (m^2)	DEDUCTION (SF)	RESIDENTIAL GFA (m^2)	RESIDENTIAL GFA (SF)	RETAIL GFA (m^2)	RETAIL GFA (SF)	INDOOR AMENITY (m^2)	INDOOR AMENITY (SF)	OUTDOOR AMENITY (m^2)	OUTDOOR AMENITY (SF)	GFA (m^2)	GFA (SF)
LEVEL 01	1,055.54 m^2	11,362 SF	78.36 m^2	843 SF	378.25 m^2	4,071 SF	598.93 m^2	6,447 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	977.18 m^2	10,518 SF
LEVEL 02	1,600.54 m^2	17,228 SF	299.59 m^2	3,225 SF	1,300.95 m^2	14,003 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,300.95 m^2	14,003 SF
LEVEL 03	3,045.70 m^2	32,784 SF	2,013.18 m^2	21,670 SF	1,032.51 m^2	11,114 SF	0.00 m^2	0 SF	1,970.46 m^2	21,209.84 SF	386.53 m^2	4,160.61 SF	1,032.51 m^2	11,114 SF
LEVEL 04	1,585.69 m^2	17,068 SF	47.13 m^2	507 SF	1,538.55 m^2	16,561 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,538.55 m^2	16,561 SF
LEVEL 05	1,809.33 m^2	19,475 SF	45.66 m^2	492 SF	1,763.67 m^2	18,984 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,763.67 m^2	18,984 SF
LEVEL 06	1,552.30 m^2	16,709 SF	93.99 m^2	1,012 SF	1,458.31 m^2	15,697 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,458.31 m^2	15,697 SF
LEVEL 07	1,293.85 m^2	13,927 SF	84.19 m^2	906 SF	1,209.66 m^2	13,021 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,209.66 m^2	13,021 SF
LEVEL 08	1,222.14 m^2	13,155 SF	76.80 m^2	827 SF	1,145.34 m^2	12,328 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,145.34 m^2	12,328 SF
LEVEL 09	1,138.46 m^2	12,254 SF	78.05 m^2	840 SF	1,060.41 m^2	11,414 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,060.41 m^2	11,414 SF
LEVEL 10	1,064.41 m^2	11,457 SF	117.71 m^2	1,267 SF	946.70 m^2	10,190 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	946.70 m^2	10,190 SF
LEVEL 11	990.32 m^2	10,660 SF	76.56 m^2	824 SF	913.77 m^2	9,836 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	913.77 m^2	9,836 SF
LEVEL 12	912.27 m^2	9,820 SF	75.15 m^2	809 SF	837.11 m^2	9,011 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	837.11 m^2	9,011 SF
LEVEL 13	850.56 m^2	9,155 SF	74.33 m^2	800 SF	776.23 m^2	8,355 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	776.23 m^2	8,355 SF
LEVEL 14 TO 58	38,275.19 m^2	411,991 SF	3,344.84 m^2	36,004 SF	34,930.35 m^2	375,987 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	34,930.35 m^2	375,987 SF
TOTAL	56,396.28 m^2	607,045 SF	6,505.55 m^2	70,025 SF	49,291.81 m^2	530,573 SF	598.93 m^2	6,447 SF	1,970.46 m^2	21,209.84 SF	386.53 m^2	4,160.61 SF	49,890.74 m^2	537,019 SF

UNIT SUMMARY TOWER B

UNIT CATEGORY	MINIMUM (SF)	MAXIMUM (SF)	COUNT	%
1B	461 SF	1,198 SF	470	71%
2B	734 SF	985 SF	164	25%
3B	723 SF	1,394 SF	26	4%
TOTAL			660	

UNIT SUMMARY (PER LEVEL) TOWER B

LEVEL	UNIT CATEGORY	MINIMUM (SF)	MAXIMUM (SF)	COUNT
LEVEL 02	1B	536 SF	821 SF	9
LEVEL 02	2B	734 SF	860 SF	3
LEVEL 02	3B	911 SF	1,259 SF	3
				15
LEVEL 03	1B	569 SF	1,198 SF	8
LEVEL 03	2B	830 SF	869 SF	2
LEVEL 03	3B	904 SF	1,067 SF	2
				12
LEVEL 04	1B	569 SF	821 SF	8
LEVEL 04	2B	830 SF	935 SF	4
LEVEL 04	3B	904 SF	1,068 SF	3
				15
LEVEL 05	1B	570 SF	832 SF	9
LEVEL 05	2B	837 SF	898 SF	3
LEVEL 05	3B	723 SF	1,263 SF	6
				18
LEVEL 06	1B	461 SF	832 SF	15
LEVEL 06	2B	837 SF	837 SF	1
LEVEL 06	3B	904 SF	1,092 SF	3
				19
LEVEL 07	1B	534 SF	850 SF	10
LEVEL 07	2B	832 SF	937 SF	4
LEVEL 07	3B	1,271 SF	1,271 SF	1
				15
LEVEL 08	1B	534 SF	850 SF	11
LEVEL 08	2B	832 SF	832 SF	1
LEVEL 08	3B	1,045 SF	1,394 SF	2
				14
LEVEL 09	1B	534 SF	818 SF	9
LEVEL 09	2B	832 SF	860 SF	2
LEVEL 09	3B	1,008 SF	1,175 SF	2
				13
LEVEL 10	1B	534 SF	850 SF	8
LEVEL 10	2B	832 SF	832 SF	1
LEVEL 10	3B	925 SF	1,010 SF	2
				11
LEVEL 11	1B	541 SF	846 SF	8
LEVEL 11	2B	870 SF	985 SF	4
				12
LEVEL 12	1B	557 SF	852 SF	7
LEVEL 12	2B	937 SF	937 SF	1
LEVEL 12	3B	1,093 SF	1,127 SF	2
				10
LEVEL 13	1B	523 SF	642 SF	8
LEVEL 13	2B	813 SF	928 SF	3
				11
LEVEL 14 (TO L58)	1B	523 SF	642 SF	360
LEVEL 14 (TO L58)	2B	813 SF	928 SF	135
				495
TOTAL				660

BUILDING STATISTICS - TOWER C

GCA BY LEVEL (ABOVE GRADE) TOWER C

LEVELS	AREA PER LEVEL (SM)	AREA PER LEVEL (SF)	NO. OF LEVELS TYPICAL	TOTAL AREA (SM)	TOTAL AREA (SF)
LEVEL 01	1,535.61 m^2	16,529 SF	1	1,535.61 m^2	16,529 SF
LEVEL 02	2,276.21 m^2	24,501 SF	1	2,276.21 m^2	24,501 SF
LEVEL 03	1,534.37 m^2	16,516 SF	1	1,534.37 m^2	16,516 SF
LEVEL 04	1,979.72 m^2	21,310 SF	1	1,979.72 m^2	21,310 SF
LEVEL 05	1,778.89 m^2	19,148 SF	1	1,778.89 m^2	19,148 SF
LEVEL 06	1,827.37 m^2	19,670 SF	1	1,827.37 m^2	19,670 SF
LEVEL 07	1,579.63 m^2	17,003 SF	1	1,579.63 m^2	17,003 SF
LEVEL 08	1,463.14 m^2	15,749 SF	1	1,463.14 m^2	15,749 SF
LEVEL 09	1,316.93 m^2	14,175 SF	1	1,316.93 m^2	14,175 SF
LEVEL 10	1,199.48 m^2	12,911 SF	1	1,199.48 m^2	12,911 SF
LEVEL 11	1,057.30 m^2	11,381 SF	1	1,057.30 m^2	11,381 SF
LEVEL 12	949.62 m^2	10,222 SF	1	949.62 m^2	10,222 SF
LEVEL 13	850.23 m^2	9,152 SF	1	850.23 m^2	9,152 SF
LEVEL 14 TO 50	850.21 m^2	9,152 SF	37	31,457.80 m^2	338,609 SF
TOTAL	20,198.73 m^2	217,417 SF		50,806.32 m^2	546,875 SF

AREA SUMMARY (ABOVE GRADE) TOWER C

LEVELS	GCA (m^2)	GCA (SF)	DEDUCTION (m^2)	DEDUCTION (SF)	RESIDENTIAL GFA (m^2)	RESIDENTIAL GFA (SF)	RETAIL GFA (m^2)	RETAIL GFA (SF)	INDOOR AMENITY (m^2)	INDOOR AMENITY (SF)	OUTDOOR AMENITY (m^2)	OUTDOOR AMENITY (SF)	GFA (m^2)	GFA (SF)
LEVEL 01	1,535.61 m^2	16,529 SF	264.16 m^2	2,843 SF	634.87 m^2	6,834 SF	636.58 m^2	6,852 SF	162.01 m^2	1,743.85 SF	0.00 m^2	0.00 SF	1,271.46 m^2	13,686 SF
LEVEL 02	2,276.21 m^2	24,501 SF	702.75 m^2	7,564 SF	1,573.46 m^2	16,937 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,573.46 m^2	16,937 SF
LEVEL 03	1,534.37 m^2	16,516 SF	39.36 m^2	424 SF	1,495.01 m^2	16,092 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,495.01 m^2	16,092 SF
LEVEL 04	1,979.72 m^2	21,310 SF	71.45 m^2	769 SF	1,908.27 m^2	20,540 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,908.27 m^2	20,540 SF
LEVEL 05	1,778.89 m^2	19,148 SF	71.45 m^2	769 SF	1,707.45 m^2	18,379 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,707.45 m^2	18,379 SF
LEVEL 06	1,827.37 m^2	19,670 SF	46.71 m^2	503 SF	1,780.67 m^2	19,167 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,780.67 m^2	19,167 SF
LEVEL 07	1,579.63 m^2	17,003 SF	82.46 m^2	888 SF	1,497.17 m^2	16,115 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,497.17 m^2	16,115 SF
LEVEL 08	1,463.14 m^2	15,749 SF	74.94 m^2	807 SF	1,388.20 m^2	14,942 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,388.20 m^2	14,942 SF
LEVEL 09	1,316.93 m^2	14,175 SF	74.94 m^2	807 SF	1,241.98 m^2	13,369 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,241.98 m^2	13,369 SF
LEVEL 10	1,199.48 m^2	12,911 SF	161.36 m^2	1,737 SF	1,038.13 m^2	11,174 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	1,038.13 m^2	11,174 SF
LEVEL 11	1,057.30 m^2	11,381 SF	73.40 m^2	790 SF	983.90 m^2	10,591 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	983.90 m^2	10,591 SF
LEVEL 12	949.62 m^2	10,222 SF	74.24 m^2	799 SF	875.38 m^2	9,423 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	875.38 m^2	9,423 SF
LEVEL 13	850.23 m^2	9,152 SF	74.09 m^2	797 SF	776.14 m^2	8,354 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	776.14 m^2	8,354 SF
LEVEL 14 TO 50	31,457.80 m^2	338,609 SF	2,741.20 m^2	29,506 SF	28,716.60 m^2	309,103 SF	0.00 m^2	0 SF	0.00 m^2	0.00 SF	0.00 m^2	0.00 SF	28,716.60 m^2	309,103 SF
TOTAL	50,806.32 m^2	546,875 SF	4,552.50 m^2	49,003 SF	45,617.24 m^2	491,020 SF	636.58 m^2	6,852 SF	162.01 m^2	1,743.85 SF	0.00 m^2	0.00 SF	46,253.82 m^2	497,872 SF

UNIT SUMMARY TOWER C

UNIT CATEGORY	MINIMUM (SF)	MAXIMUM (SF)	COUNT	%
1B	488 SF	844 SF	388	67%
2B	757 SF	1,020 SF	164	28%
3B	906 SF	1,349 SF	25	4%
TOTAL			577	

UNIT SUMMARY (PER LEVEL) TOWER C

LEVEL	UNIT CATEGORY	MINIMUM (SF)	MAXIMUM (SF)	COUNT
LEVEL 02	1B	500 SF	771 SF	12
LEVEL 02	2B	767 SF	932 SF	6
LEVEL 02	3B	1,145 SF	1,349 SF	2
				20
LEVEL 03	1B	527 SF	771 SF	13
LEVEL 03	2B	767 SF	908 SF	6
LEVEL 03	3B	1,346 SF	1,346 SF	1
				20
LEVEL 04	1B	527 SF	771 SF	16
LEVEL 04	2B	769 SF	908 SF	8
LEVEL 04	3B	1,346 SF	1,346 SF	1
				25
LEVEL 05	1B	529 SF	781 SF	15
LEVEL 05	2B	769 SF	908 SF	6
LEVEL 05	3B	1,349 SF	1,349 SF	1
				22
LEVEL 06	1B	527 SF	807 SF	14
LEVEL 06	2B	774 SF	824 SF	3
LEVEL 06	3B	1,037 SF	1,349 SF	4
				21
LEVEL 07	1B	529 SF	795 SF	13
LEVEL 07	2B	786 SF	935 SF	4
LEVEL 07	3B	1,015 SF	1,091 SF	3
				20
LEVEL 08	1B	529 SF	844 SF	12
LEVEL 08	2B	786 SF	905 SF	4
LEVEL 08	3B	1,171 SF	1,229 SF	2
				18
LEVEL 09	1B	529 SF	708 SF	10
LEVEL 09	2B	757 SF	1,020 SF	7
				17
LEVEL 10	1B	529 SF	774 SF	4
LEVEL 10	2B	879 SF	881 SF	2
LEVEL 10	3B	906 SF	1,171 SF	5
				11
LEVEL 11	1B	488 SF	676 SF	8
LEVEL 11	2B	779 SF	998 SF	3
LEVEL 11	3B	1,003 SF	1,053 SF	2
				13
LEVEL 12	1B	548 SF	832 SF	5
LEVEL 12	2B	886 SF	886 SF	1
LEVEL 12	3B	937 SF	1,179 SF	4
				10
LEVEL 13	1B	548 SF	815 SF	7
LEVEL 13	2B	882 SF	976 SF	3
				10
LEVEL 14 (TO L50)	1B	548 SF	815 SF	259
LEVEL 14 (TO L50)	2B	882 SF	976 SF	111
				370
TOTAL				577

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1	2023-03-20	ISSUED FOR OPA/ZBA

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PROJECT NORTH

ONTARIO ASSOCIATION OF ARCHITECTS
STEPHEN R. TEEPLE
LICENCE
4078

SEAL

BUILDING STATISTICS

Author	Checker		
DRAWN BY	CHECKED BY		
22-106		ARCH E	00/03/23
PROJ NO	SCALE	FORMAT	PLOT DATE

A002

PLAN OF SURVEY ILLUSTRATING TOPOGRAPHY OF

LOT 15
REGISTERED PLAN 1333 AND
PART OF LOTS 13 AND 14
CONCESSION 3
SOUTH OF DUNDAS STREET

(GEOGRAPHIC TOWNSHIP OF TRAFALGAR)

TOWN OF OAKVILLE

REGIONAL MUNICIPALITY OF HALTON

SCALE 1 : 200

5 0 5 10 metres

J.D. BARNES LIMITED

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

ELEVATION NOTE

ELEVATIONS ARE OF GEODETIC ORIGIN (CGVD-1928:78), AND ARE DERIVED FROM GNSS OBSERVATIONS AND NATURAL RESOURCES CANADA'S GEOID MODEL HT2.0.

LOCAL BENCHMARK

CUT CROSS IN CONCRETE SIDEWALK, LOCATED ON THE SOUTH SIDE OF ARGUS ROAD, APPROXIMATELY 11.6 METRES FROM THE WESTERN CORNER OF THE BUILDING AT No. 587 ARGUS ROAD AND 5.3 METRES FROM A WATER VALVE IN THE ROAD, AS SHOWN ON THE FACE OF PLAN.
ELEVATION=104.28m

NOTES

BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B, BY REAL TIME NETWORK (RTN) OBSERVATIONS, UTM ZONE 17, NAD83 (CSRS) (2010.0).

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999728.

FOR BEARING COMPARISONS, A ROTATION OF 0°52'50" COUNTER-CLOCKWISE WAS APPLIED TO BEARINGS ON P1 AND P6.

FOR BEARING COMPARISONS, A ROTATION OF 1°1'50" COUNTER-CLOCKWISE WAS APPLIED TO BEARINGS ON P2 AND P3.

FOR BEARING COMPARISONS, A ROTATION OF 1°1'40" COUNTER-CLOCKWISE WAS APPLIED TO BEARINGS ON P4.

FOR BEARING COMPARISONS, A ROTATION OF 1°8'10" COUNTER-CLOCKWISE WAS APPLIED TO BEARINGS ON P5.

INTEGRATION DATA

OBSERVED REFERENCE POINTS (ORPs): UTM ZONE 17, NAD83 (CSRS) (2010.0).

COORDINATES TO AN URBAN ACCURACY PER SECTION 14 (2) OF O.REG 216/10.

POINT ID	EASTING	NORTHING
ORP (A)	606 340.48	4 812 463.44
ORP (B)	606 485.37	4 812 608.06

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

THE RESULTANT TIE BETWEEN ORP (A) AND ORP (B) IS 204.76 N45°03'10"E

LEGEND

■	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT SET
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR
RIB	DENOTES	ROUND IRON BAR
IB	DENOTES	IRON BAR
IP	DENOTES	IRON PIPE
CM	DENOTES	CONCRETE MONUMENT
PB	DENOTES	PLASTIC BAR
WIT	DENOTES	WITNESS
P1	DENOTES	REGISTERED PLAN 1333
P2	DENOTES	PLAN 20R-15677
P3	DENOTES	PLAN 20R-17555
P4	DENOTES	PLAN 20R-4346
P5	DENOTES	PLAN OF SURVEY BY GLENN E. GIDDY, O.L.S., DATED APRIL 8, 1998 (REF. No. F-1984)
P6	DENOTES	SURVEYORS REAL PROPERTY REPORT BY TARASICK, McMILLAN LIMITED, O.L.S., DATED NOVEMBER 1, 2000 (FILE No. 2621)
MEAS	DENOTES	MEASURED
JDB	DENOTES	J.D. BARNES LIMITED
MTO	DENOTES	MINISTRY OF TRANSPORTATION ONTARIO
626	DENOTES	H.D. SEMELL, O.L.S.
760	DENOTES	McDONNELL, MAUGHAN LTD., O.L.S.
923	DENOTES	TARASICK McMILLAN KUBICKI LIMITED, O.L.S.
1574	DENOTES	DELPH & JENKINS LIMITED, O.L.S.
MMP	DENOTES	MACKEY, MACKEY & PETERS LIMITED, O.L.S.
OU	DENOTES	ORIGIN UNKNOWN

N=NORTH / S=SOUTH / E=EAST / W=WEST

ALL SET SSIB AND PB MONUMENTS WERE USED DUE TO LACK OF OVERBURDEN AND/OR PROXIMITY OF UNDERGROUND UTILITIES IN ACCORDANCE WITH SECTION 11 (4) OF O.REG. 525/91.

LEGEND

□ CB	DENOTES CATCHBASIN
⌖ TC	DENOTES TELEPHONE CHAMBER
HPED	DENOTES HYDRO PEDESTAL
▪ G METER	DENOTES GAS METER
⌖ GV	DENOTES GAS VALVE
◯ MH	DENOTES MANHOLE
◯ SAN MH	DENOTES SANITARY MANHOLE
• BOL	DENOTES BOLLARD
⌖ HP	DENOTES HYDRO POLE
• LS	DENOTES LIGHT STANDARD
□ TJB	DENOTES TELEPHONE JUNCTION BOX
PED	DENOTES TELEPHONE PEDESTAL
□ CJB	DENOTES CABLE TV JUNCTION BOX
⊢ H	DENOTES FIRE HYDRANT
⊢ FDC	DENOTES FIRE DEPARTMENT CONNECTION
⌖ WV	DENOTES WATER VALVE
BM	DENOTES BENCH MARK
—UE—	DENOTES BURIED HYDRO CABLE
—OC—	DENOTES OVERHEAD CABLE
	DENOTES CONIFEROUS TREE DIA=DIAMETER OF TRUNK IN METRES
	DENOTES DECIDUOUS TREE DIA=DIAMETER OF TRUNK IN METRES

AREA = 15,378 sq.m.
(3.7999 acres)

BEFORE DIGGING, UNDERGROUND SERVICES SHOULD BE LOCATED ON SITE BY THE RESPECTIVE AGENCIES.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT LOCAL BENCHMARKS HAVE NOT BEEN ALTERED OR DISTURBED AND THAT THE RELATIVE ELEVATIONS AGREE WITH THE INFORMATION SHOWN ON THIS PLAN.

PRIMARY CONTOURS ARE AT 1.00m INTERVALS.
SECONDARY CONTOURS ARE AT 0.25m INTERVALS.

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 THE 17th DAY OF MAY, 2022.

JUNE 2, 2022
DATE

R.S. QUERUBIN
ONTARIO LAND SURVEYOR

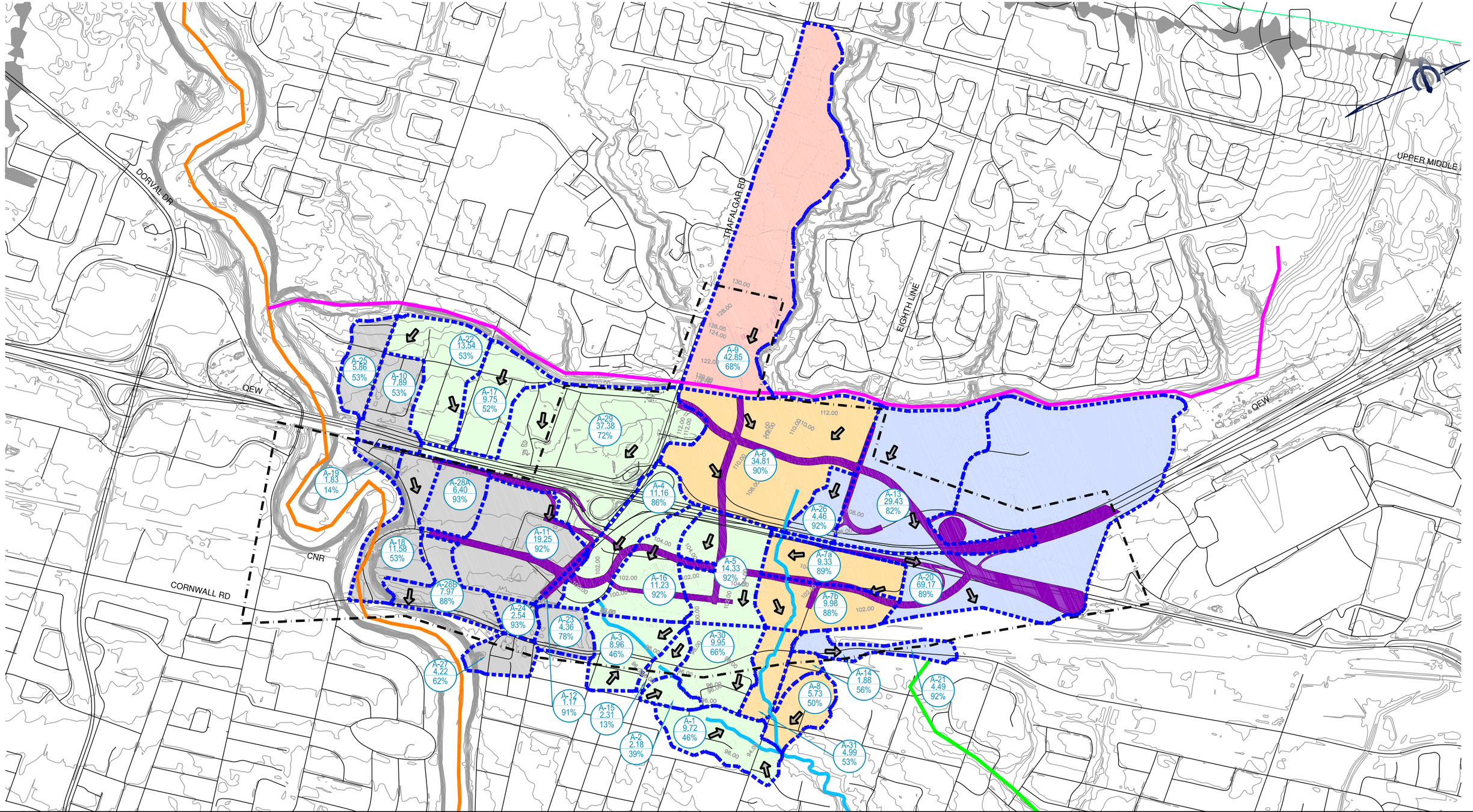
ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2187282
THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR In accordance with Regulation 1026, Section 29(3).

J.D.BARNES LIMITED
SURVEYING MAPPING GIS
LAND INFORMATION SPECIALISTS
401 WHEELABRATOR WAY, SUITE A, MILTON, ON L9T 3C1
T: (905) 875-9955 F: (905) 875-9956 www.jdbarnes.com

DRAWN BY:	CHECKED BY:	REFERENCE NO.:
MB/MD	RSQ	22-30-886-00-A

FILE: G:\22-30-886\00\Drawing\22-30-886-00-A.dgn DATED: 05/31/2022
PLOTTED: 6/02/22

APPENDIX 'B'



COLE ENGINEERING
70 VALLEYWOOD DRIVE, MARKHAM, ON L3R 4T5
T:416.987.6161 / 905.940.6161 F:905.940.2064

LEGEND

A-28 14.88 79%
- DRAINAGE NAME
- DRAINAGE AREA (HECTARES)
- IMPERVIOUSNESS

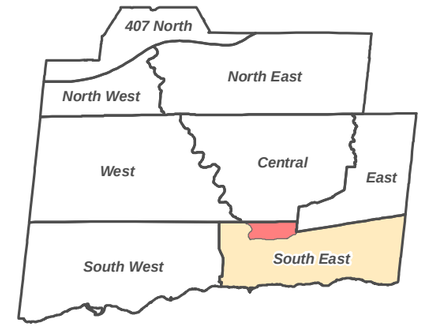
- DRAINAGE TO LOWER MORRISON (RIVER 1)
- DRAINAGE TO LOWER MORRISON (RIVER 2)
- DRAINAGE TO 16 MILE
- DRAINAGE TO WEDGEWOOD MORRISON DIVERSION CHANNEL
- DRAINAGE TO WEDGEWOOD
- LOWER MORRISON CREEK
- 16 MILE CREEK
- WEDGEWOOD CREEK
- MORRISON WEDGEWOOD DIVERSION CHANNEL
- 227.50 EXISTING CONTOUR LINE
- EMERGENCY SPILL / OVERLAND FLOW DIRECTION
- ROADS
- STUDY LIMIT
- PROPOSED ROAD

MAJOR DRAINAGE AREAS (PROPOSED CONDITIONS)

MIDTOWN ENVIRONMENTAL ASSESSMENT
TOWN OF OAKVILLE

DATE:	MAY 2014	PROJECT No.:	T11-767
SCALE:	1:15,000	FIGURE No.:	DAP-2

SCHEDULE L3
MIDTOWN OAKVILLE TRANSPORTATION NETWORK



LEIGHLAND AVENUE
IROQUOIS SHORE ROAD
SIXTH LINE
TRAFALGAR ROAD
EIGHTH LINE
CROSS AVENUE
Railway
CORNWALL ROAD
Sixteen Mile Creek
TRAFALGAR ROAD
REYNOLDS STREET
CHARTWELL ROAD
MORRISON ROAD

Information outside of the growth area boundary is shown for context.

- Growth Area Boundary
- Existing Road Network
- Future 32 m Multi-Purpose Arterial Road (North-South Crossing)
- Future 28 m Minor Arterial Road (Cross Avenue)
- Future 26 m Local Road (Station Road)
- Future 24 m Minor Arterial Road (Chartwell Road)
- Future 22 m Local Road
- Future 20 m Local Road
- Future 19 m Local Road
- Future 18 m Local Road
- Future Ramp
- Future Cul-de-sac
- Future Railway Grade Separation
- Railway
- Major Transit Station

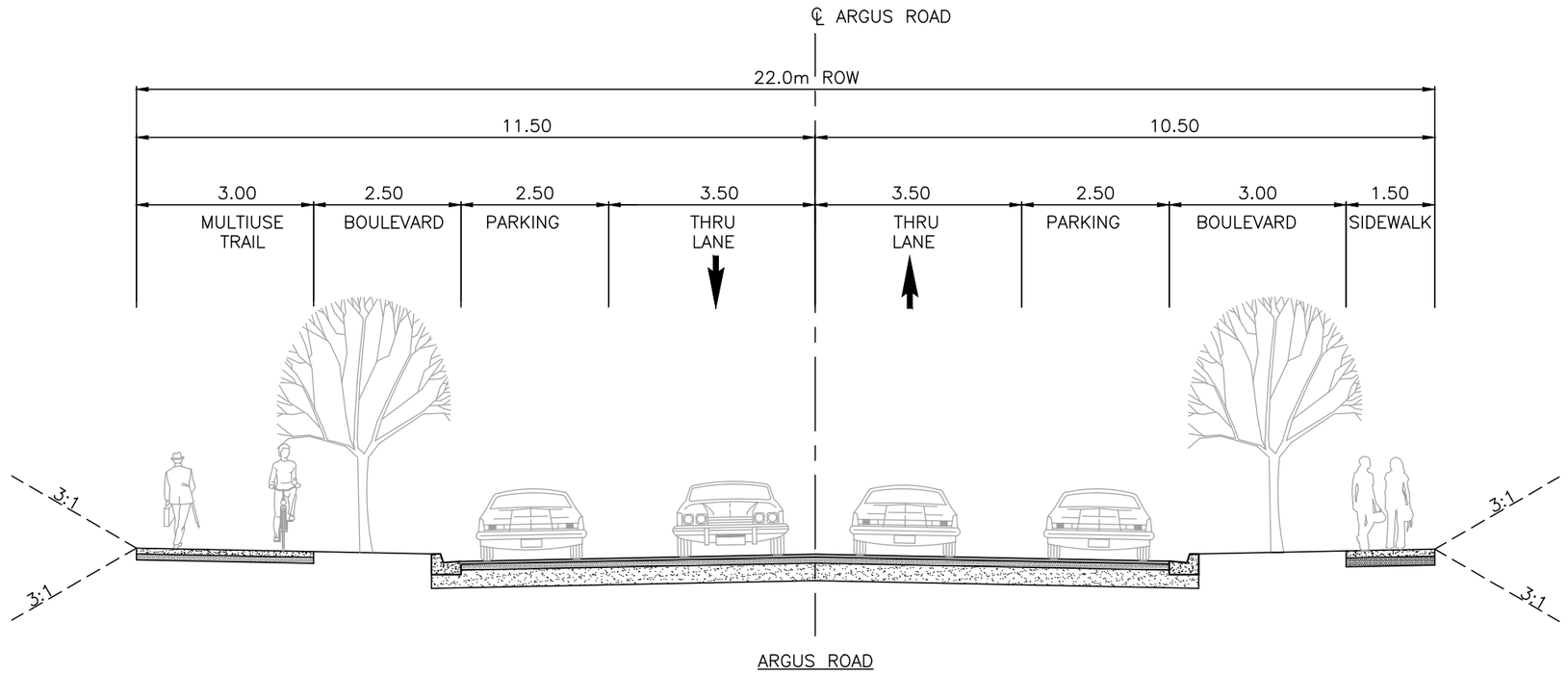
Refer to Part E, Midtown Oakville, for Growth Area Policies

Refer to Part E, Midtown Oakville Exceptions

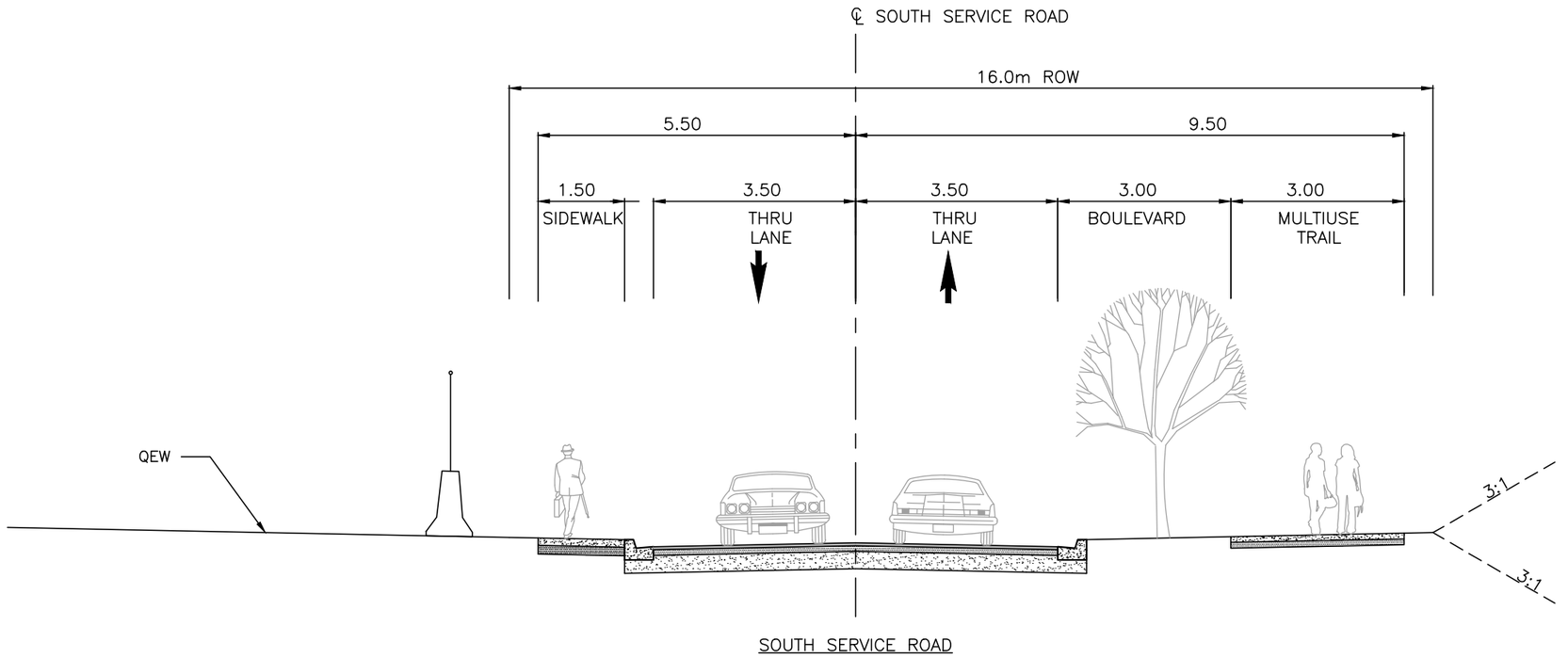
1:9,000

August 31, 2021

S:\DEPARTME\PLANNING\GIS DATA DEVELOPMENT\OFFICIAL PLAN\OP2008\
LIVABLE OAKVILLE MXD...SCHEDULE L3.MXD



ARGUS ROAD



SOUTH SERVICE ROAD

1	JUN 14	ROS	FINAL REPORT	SS	IZ
№	Date	By	REVISIONS	MANU	CAD

Design	ROS	Ch'kd	DS	Date	JUNE 2014
Drawn	IZ	Ch'kd	DS		
Scale	NTS			References	

COLE ENGINEERING

OAKVILLE

Town of Oakville

Engineering and Construction

TITLE

MIDTOWN OAKVILLE EA

TYPICAL SECTIONS

Consultant File № TR11-767

Regional Drawing №

CONTRACT №

Drawing № SHEET 31 OF 36

APPENDIX 'C'

TRAFALGAR ENGINEERING LTD.

ESTIMATED EXISTING WATER DEMAND

Project: 590 Argus Road
Desc: Rezoning/OPA

Project No.: 1798
Prepared By: MW
Checked By: NAS

	Occupancy Data					Peaking Factors			Demand Flow		
Land Use / Occupancy Type	Site Area (ha)	Population Density (pers/ha)	Eq. Population (cap.)	Per Cap. Demand (L/cap. Day)	Average Daily Demand (L/min)	Min. Hour	Peak Hour	Max. Daily	Min. Hour Demand (L/min)	Max. Hour Demand (L/min)	Max. Daily Demand (L/min)
Light Commercial	1.54	90	139	275	26	1.00	2.25	2.25	26	60	60
TOTAL	**2**		**139**		**26**				**26**	**60**	**60**

Average Daily Demand: **26 (L/min)**
Minimum Hourly Demand: **26 (L/min)**
Maximum Hourly Demand: **60 (L/min)**
Maximum Daily Demand: **60 (L/min)**

TRAFALGAR ENGINEERING LTD.

ESTIMATED PROPOSED WATER DEMAND

Project: 590 Argus Road
Desc: Rezoning/OPA

Project No.: 1798
Prepared By: MW
Checked By: NAS

	Occupancy Data					Peaking Factors			Demand Flow		
Land Use / Occupancy Type	Site Area (ha)	Population Density (pers/ha)	Eq. Population (cap.)	Per Cap. Demand (L/cap. Day)	Average Daily Demand (L/min)	Min. Hour	Peak Hour	Max. Daily	Min. Hour Demand (L/min)	Max. Hour Demand (L/min)	Max. Daily Demand (L/min)
Apartments	1.21	285	345	275	66	1.00	4.00	2.25	66	263	148
Non Residential	1.21	90.0	109	275	21	1.00	2.25	2.25	21	47	47
TOTAL	**2.42**		**454**		**87**				**87**	**310**	**195**

Fire Flow
Using Fire Underwriters Survey Methodology:

Average Daily Demand: 87 (L/min)
Minimum Hourly Demand: 87 (L/min)
Maximum Hourly Demand: 310 (L/min)
Maximum Daily Demand: 195 (L/min)
Max. Daily Plus Fire: 12195 (L/min)

1. **An estimate of the fire flow is given by the formula** $F = 220C\sqrt{A}$

Where:
F = The required fire flow in litres per minute
C = Coefficient related to the type of construction
A = The total floor area in square metres (including all storeys but excluding basements at least 50% below grade)

Type of Construction: Fire-Resistive Coefficient: 0.60 Total Floor Area: 8226.76 (m^2)

F = 12000 (L/min)

Adequately Protected Vertical Openings: Yes

Area Note: For adequately protected vertical openings consider only the area of the largest floor plus 25% of each of the two immediately adjoining floors.

NOTE: Tower A produced the maximum Fire Flow requirement

2. **Adjust the value in No. 1 for occupancy surcharge/reduction**

Occupancy Contents: Combustible Factor: 0%

F = 12000 (L/min)

3. **Adjust the value in No. 2 for sprinkler**

NFPA 13 Sprinkler:	Yes	Reduction:	20%
Standard Water Supply:	Yes	Reduction:	10%
Fully Supervised:	Yes	Reduction:	10%
		Total Reduction:	**40%**
		Sprinkler Reduction:	**4800 (L/min)**

4. Adjust the value in No. 2 for exposure

	Separation (m)	Charge
North	132	0%
East	23	10%
South	16	15%
West	16	15%
Total Charge:		**40%**
Exposure Charge:		**4800 (L/min)**

5. **Estimated Fire Flow is value in No. 2 less *Sprinkler Reduction* plus *Exposure Charge*, rounded to the nearest 1000**

F = 12000 (L/min)

APPENDIX ‘D’

TRAFALGAR ENGINEERING LTD.

ESTIMATED EXISTING SANITARY FLOW

Project: 590 Argus Road
Desc: Rezoning/OPA

Project No.: 1798
Prepared By: MW
Checked By: NAS

Residential

Land Use / Occupancy Type	Site Area (ha)	Population Density (pers/ha)	Eq. Population (cap.)	Per Cap. Demand (L/cap. Day)	Average Daily Dry Weather Flow (L/s)
			0		
TOTAL	**0.00**		**0**		**0.0**

Industrial / Commercial / Institutional

Land Use / Occupancy Type	Site Area (ha)	Population Density (pers/ha)	Eq. Population (cap.)	Unit Sewage Flow (L/Ha. Day)	Average Daily Dry Weather Flow (L/s)
Light Commerical	1.54	90.0	139	24750	0.4
TOTAL	**1.54**		**139**		**0.44**

Residential Peaking Factor:	4.50	
ICI Peaking Factor:	4.20	
Include ICI Peaking?	Yes	
Tributary Area:	1.54	(ha)
Infiltration Allowance:	0.286	(L/s ha)
Foundation Drain Allowance:	0.00	(L/s ha)
Infilitration Avg Flow:	0.44	(L/s)
ICI Average Flow:	0.44	(L/s)
Groundwater Discharge:		(L/s)
Total Average Flow:	**0.88**	**(L/s)**
Infiltration Flow:	0.40	(L/s)
ICI Peak Flow:	1.85	(L/s)
Groundwater Discharge:		(L/s)
Total Peak Flow:	**2.25**	**(L/s)**

TRAFALGAR ENGINEERING LTD.

ESTIMATED PROPOSED SANITARY FLOW

Project: 590 Argus Road
Desc: Rezoning/OPA

Project No.: 1798
Prepared By: MW
Checked By: NAS

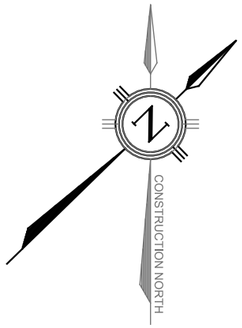
Residential

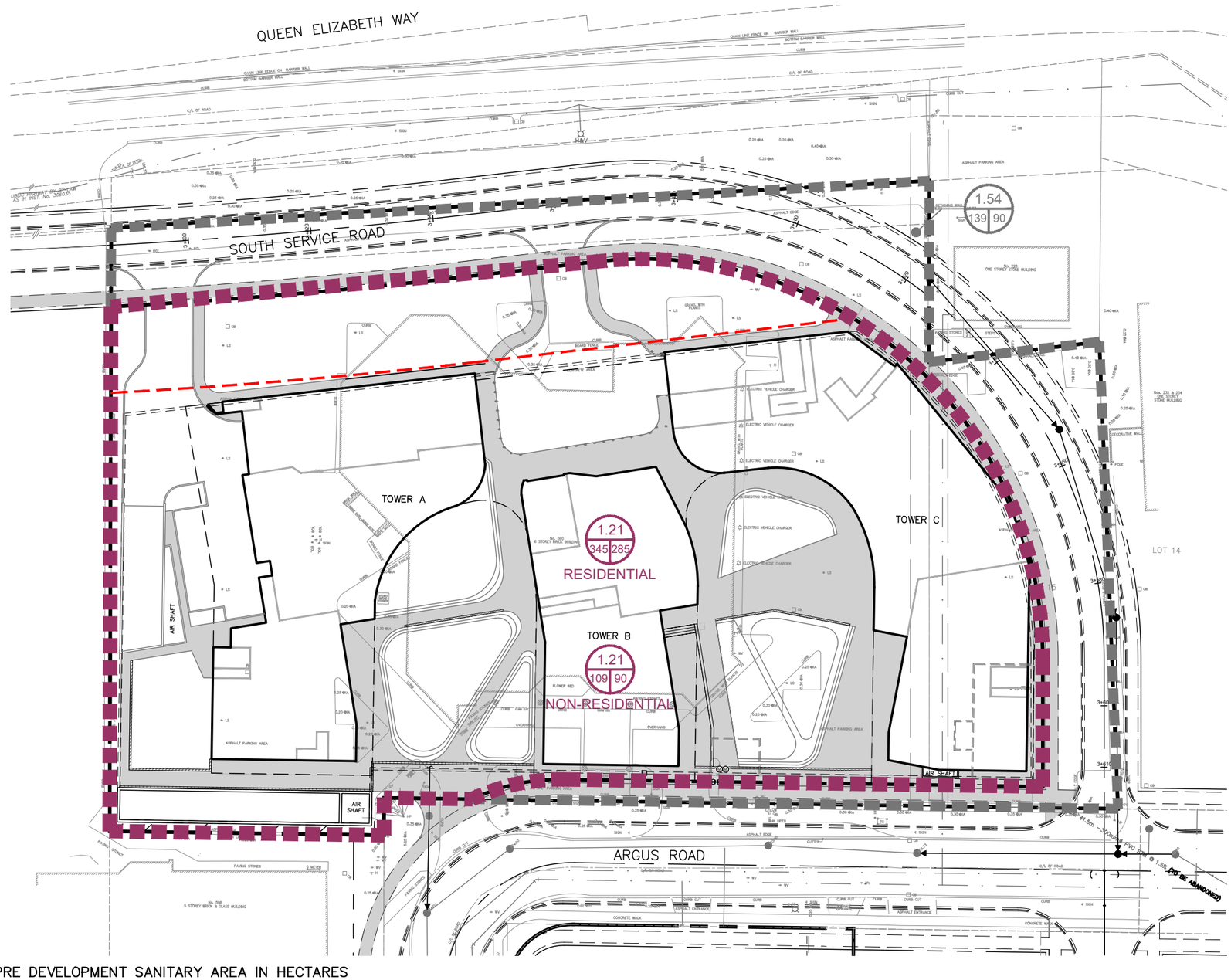
Land Use / Occupancy Type	Site Area (ha)	Population Density (pers/ha)	Eq. Population (cap.)	Per Cap. Demand (L/cap. Day)	Average Daily Dry Weather Flow (L/s)
Apartments (Over 6 Stories)	1.21	285.0	345	275	1.10
TOTAL	**1.21**		**345**		**1.10**

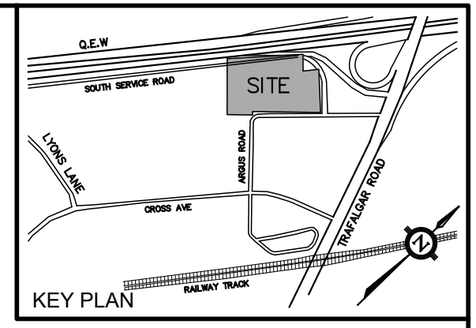
Industrial / Commercial / Institutional

Land Use / Occupancy Type	Site Area (ha)	Population Density (pers/ha)	Eq. Population (cap.)	Unit Sewage Flow (L/Ha. Day)	Average Daily Dry Weather Flow (L/s)
Non-Residential / Commercial	1.21	90.0	109	24750	0.3
TOTAL	**1.21**		**109**		**0.35**

Residential Peaking Factor:	4.05	
ICI Peaking Factor:	4.23	
Include ICI Peaking?	No	
Tributary Area:	1.21	(ha)
Infiltration Allowance:	0.286	(L/s ha)
Foundation Drain Allowance:	0.00	(L/s ha)
Residential + Infilitration Avg Flow:	1.4	(L/s)
ICI Average Flow:	0.3	(L/s)
Groundwater Discharge:		(L/s)
Total Average Flow:	**1.8**	**(L/s)**
Residential Peak Flow:	4.8	(L/s)
ICI Peak Flow:	0.3	(L/s)
Groundwater Discharge:		(L/s)
Total Peak Flow:	**5.15**	**(L/s)**







LEGEND

1.19 / 107 | 90 — PRE DEVELOPMENT SANITARY AREA IN HECTARES; EQUIVALENT POPULATION; POPULATION DENSITY

0.90 / 81 | 90 — POST DEVELOPMENT SANITARY AREA IN HECTARES; EQUIVALENT POPULATION; POPULATION DENSITY

PRE DEVELOPMENT SANITARY DRAINAGE AREA BOUNDARY

POST DEVELOPMENT SANITARY DRAINAGE AREA BOUNDARY

PROJECT TITLE
590 ARGUS RD.
PROPOSED RESIDENTIAL CONDOMINIUM DEVELOPMENT
DISTRIKT DEVELOPMENTS

DRAWING TITLE
SANITARY DRAINAGE PLAN

TRAFALGAR ENGINEERING
#1-481 MORDEN ROAD, OAKVILLE, ON, L6K 3W6
www.trafalgareng.com

DESIGN BY	MW	SCALE	1:750
DRAWN BY	ZI	DATE	2023/03/28

DRAWING No. FIG. 1

FILENAME: P:\1798 Distrikt 590 Argus\04-CAD\04-Rezoning_OPA\1798GS.dwg
PLOTDATE: Apr 06, 2023 - 2:18pm

APPENDIX ‘E’

TRAFALGAR ENGINEERING LTD.

COMPOSITE RUNOFF COEFFICIENT

Project: 590 Argus Road
Desc: First Submission OPA/RZA

Project No.: 1798
Prepared By: MW
Checked By: NAS

Pre-Development Composite Runoff Coefficient

Surface	'A' (m^2)	'C'	'AC'	% Imp	'AI'
Existing building and parking	12089	0.50	6045	100%	12089
Existing landscaping	0	0.25	-	0%	-
			-	100%	-
			-	100%	-
			-		-
Totals	**12089**		**6045**		**12089**
		C = 'AC'/'A'= 0.50		**%I = 'AI'/'A' = 100%**	

External Drainage Area Composite Runoff Coefficient

Surface	'A' (m^2)	'C'	'AC'	% Imp	'AI'
			-		-
			-		-
			-		-
			-		-
			-		-
Totals	**-**		**-**		**-**
		C = 'AC'/'A'= -		**%I = 'AI'/'A' = -**	

Post-Development Controlled Area Composite Runoff Coefficient

Surface	'A' (m^2)	'C'	'AC'	% Imp	'AI'
Development Site	12089	0.90	10880	100%	12089
			-		-
			-		-
			-		-
			-		-
Totals	**12089**		**10880**		**12089**
		C = 'AC'/'A'= 0.90		**%I = 'AI'/'A' = 100%**	

Post-Development Uncontrolled Area Composite Runoff Coefficient

Surface	'A' (m^2)	'C'	'AC'	% Imp	'AI'
			-	50%	-
			-		-
			-		-
			-		-
			-		-
Totals	**-**		**-**		**-**
		C = 'AC'/'A'= -		**%I = 'AI'/'A' = -**	

TRAFALGAR ENGINEERING LTD.

RATIONAL METHOD FLOWS

Based on Town of Oakville IDF Data

Project: 590 Argus Road
Desc: First Submission OPA/RZA

Project No.: 1798
Prepared By: MW
Checked By: NAS

Pre-Development Parameters

	Site	External	Total
'C'	0.500	0.000	0.500
'A' (ha)	1.209	0.000	1.209
'AC'	0.604	0.000	0.604

Pre-Development Flow

Return	Intensity (mm/hr)	Site Flow (L/s)	External Flow (L/s)	Total Flow (L/s)
5-yr	114.2	192	0	192
10-yr	134.8	226	0	226
25-yr	162.2	300	0	300
50-yr	182.1	367	0	367
100-yr	200.8	421	0	421

Flows have been adjusted using 25-, 50-, and 100-yr factors of 1.1, 1.2, and 1.25 (To a maximum C of 1.0)

Post-Development Parameters

	Controlled	Uncontrolled	External	Total
'C'	0.900	0.000	0.000	0.900
'A' (ha)	1.209	0.000	0.000	1.209
'AC'	1.088	0.000	0.000	1.088

Post-Development Flow

Return	Intensity (mm/hr)	Peak Inflow (L/s)	Uncontrolled Flow (L/s)	Peak Rooftop Flow (L/s)	External Flow (L/s)	Total Flow (L/s)
5-yr	114.2	345	0	0	0	345
10-yr	134.8	407	0	0	0	407
25-yr	162.2	539	0	0	0	539
50-yr	182.1	611	0	0	0	611
100-yr	200.8	674	0	0	0	674

Flows have been adjusted using 25-, 50-, and 100-yr factors of 1.1, 1.2, and 1.25 (To a maximum C of 1.0)

Post-to-Pre Comparison*

Return	Pre-Dev Total (L/s)	Post-Dev Total (L/s)	Percent Change
5-yr	192	345	80%
10-yr	226	407	80%
25-yr	300	539	80%
50-yr	367	611	66%
100-yr	421	674	60%

*Storage may be required, refer to Modified Rational Method Storage Calculation and Summary sheets if applicable

TRAFALGAR ENGINEERING LTD.

MODIFIED RATIONAL METHOD STORAGE

Based on Town of Oakville IDF Data

Project: 590 Argus Road
Desc: First Submission OPA/RZA

Project No.: 1798
Prepared By: MW
Checked By: NAS

Pre-Development

Catchment Area (ha)	1.2089
Runoff Coefficient	0.50
TC (min)	10
Control Level	5-Yr

Pre-Development Peak Intensity: 114.2 mm/hr
Pre-Development Peak Discharge: 0.192 (cms)

Post-Development Uncontrolled

Catchment Area (ha)	0.0000
Runoff Coefficient	0.00
TC (min)	10
Control Level	100-Yr

Uncontrolled Peak Discharge: 0 (cms)

External Drainage

Catchment Area (ha)	0
Runoff Coefficient	0.00
TC (min)	10
Control Level	**100-Yr**

External Peak Discharge: 0 (cms)

Post-Development Controlled

Catchment Area (ha)	1.2089	
Runoff Coefficient	1.00	(1.25 Adj. Factor)
Time of Concentration	10	
Control Level	100-Yr	

Post-Development Peak Intensity: 200.8 mm/hr
Post-Development Peak Discharge: 0.674 (cms)
Allowable Release Rate: 0.192 (cms)

Storm Duration T_D (min)	Intensity $i = A \times T_D^{-C}$ (mm/hr)	Inflow Rate $Q_P = CiA/360$ (m^3/s)	Average Roof Discharge (m^3/s)	Max. Release Rate $Q_A = Ci_{2YR}A$ (m^3/s)	Inflow Volume $V_I = 60Q_PT_D$ (m^3)	Outflow Volume $V_O = 30Q_A(T_D+T_C)$ (m^3)	Storage $S = V_I - V_O$ (m^3)
10	200.80	0.674	0.000	0.192	404.6	115.1	289.5
15	158.27	0.531	0.000	0.192	478.3	143.8	334.5
20	131.37	0.441	0.000	0.192	529.4	172.6	356.8
25	112.72	0.379	0.000	0.192	567.8	201.4	366.4
30	98.99	0.332	0.000	0.192	598.3	230.1	368.2
35	88.43	0.297	0.000	0.192	623.6	258.9	364.7
40	80.03	0.269	0.000	0.192	645.0	287.7	357.3
45	73.19	0.246	0.000	0.192	663.6	316.4	347.1
50	67.49	0.227	0.000	0.192	679.9	345.2	334.8
55	62.68	0.210	0.000	0.192	694.6	373.9	320.6
60	58.55	0.197	0.000	0.192	707.8	402.7	305.1
90	42.35	0.142	0.000	0.192	768.0	575.3	192.7
120	33.49	0.112	0.000	0.192	809.7	747.9	61.8

TRAFALGAR ENGINEERING LTD.

WATER BALANCE AND WATER QUALITY

Project: 590 Argus Road
Desc: First Submission OPA/RZA

Project No.: 1798
Prepared By: MW
Checked By: NAS

Water Balance

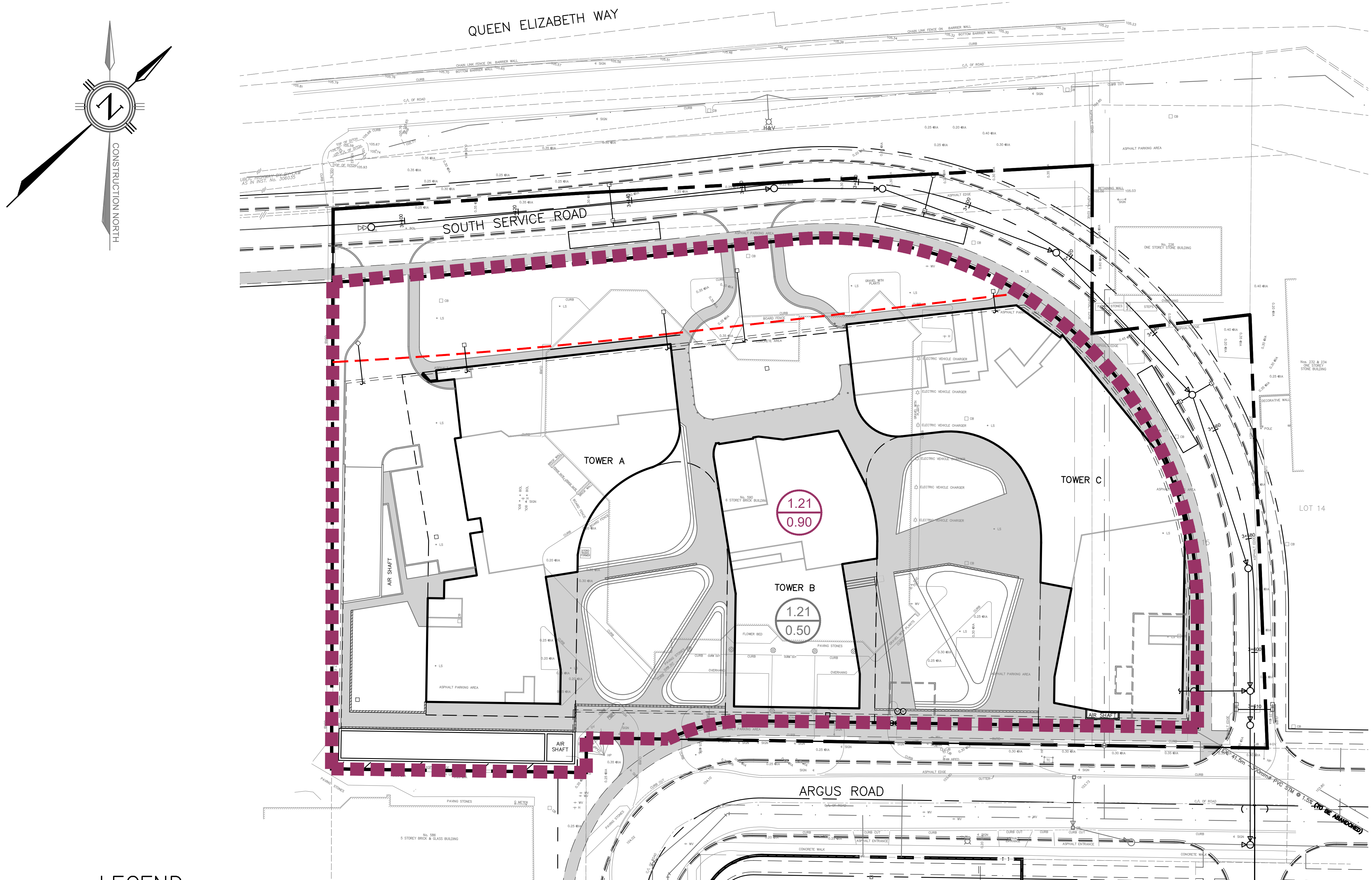
Surface	'A' (m^2)	%Total A	IA (mm)	%Total x IA
Site	12089	100%	0.0	0.0

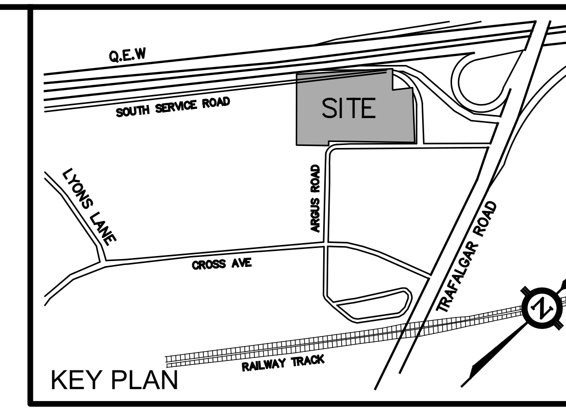
Totals	**12089**	**Total Retention:**	**0.0**	**(mm)**
		Target Retention:	25.0	(mm)
		Balance:	25.0	(mm)
		Volume Required:	**302.2**	**(m^3)**

Total Suspended Solids

Surface	'A' (m^2)	Removal Rate, 'R'	A x R
Jellyfish	12089	80%	9671

Totals	**12089**		**9671**
	Effective Removal:		**80%**





LEGEND

1.19 / 0.84	PRE DEVELOPMENT STORM AREA IN HECTARES PRE DEVELOPMENT STORM RUN–OFF COEFFICIENT
0.90 / 0.90	POST DEVELOPMENT STORM AREA IN HECTARES POST DEVELOPMENT STORM RUN–OFF COEFFICIENT
▬ ▬ ▬ ▬	PRE & POST DEVELOPMENT STORM DRAINAGE AREA BOUNDARY

PROJECT TITLE

590 ARGUS RD.

PROPOSED RESIDENTIAL CONDOMINIUM DEVELOPMENT
DISTRIKT DEVELOPMENTS

DRAWING TITLE

STORM DRAINAGE PLAN

TRAFALGAR ENGINEERING
#1-481 MORDEN ROAD, OAKVILLE, ON, L6K 3W6
www.trafalgareng.com

DESIGN BY	MW	SCALE	1:750	DRAWING No.
DRAWN BY	ZI	DATE	2023/03/28	FIG. 2

FILENAME: P:\1798 Distrikt 590 Argus\04-CAD\04-Rezoning_OPA\1798GS.dwg
PLOTDATE: Apr 06, 2023 - 3:35pm

TRAFALGAR ENGINEERING LTD.

COMPOSITE RUNOFF COEFFICIENT

Project: South Service Road Realignment
Desc: First Submission OPA/RZA

Project No.: 1798
Prepared By: MW
Checked By: NAS

Pre-Development Composite Runoff Coefficient

Surface	'A' (m^2)	'C'	'AC'	% Imp	'AI'
Existing Parking Lot and Boulevard	3567	0.50	1784	100%	3567
Existing landscaping			-	0%	-
			-	100%	-
			-	100%	-
			-		-
Totals	**3567**		**1784**		**3567**
		C = 'AC'/'A'= 0.50		**%I = 'AI'/'A' = 100%**	

External Drainage Area Composite Runoff Coefficient

Surface	'A' (m^2)	'C'	'AC'	% Imp	'AI'
			-		-
			-		-
			-		-
			-		-
			-		-
Totals	**-**		**-**		**-**
		C = 'AC'/'A'= -		**%I = 'AI'/'A' = -**	

Post-Development Controlled Area Composite Runoff Coefficient

Surface	'A' (m^2)	'C'	'AC'	% Imp	'AI'
Impervious ROW	2503	0.90	2253	100%	2503
Pervious ROW	1251	0.25	313	0%	-
			-		-
			-		-
			-		-
Totals	**3754**		**2566**		**2503**
		C = 'AC'/'A'= 0.68		**%I = 'AI'/'A' = 67%**	

Post-Development Uncontrolled Area Composite Runoff Coefficient

Surface	'A' (m^2)	'C'	'AC'	% Imp	'AI'
			-	50%	-
			-		-
			-		-
			-		-
			-		-
Totals	**-**		**-**		**-**
		C = 'AC'/'A'= -		**%I = 'AI'/'A' = -**	

TRAFALGAR ENGINEERING LTD.

RATIONAL METHOD FLOWS

Based on Town of Oakville IDF Data

Project: South Service Road Realignment
Desc: First Submission OPA/RZA

Project No.: 1798
Prepared By: MW
Checked By: NAS

Pre-Development Parameters

	Site	External	Total
'C'	0.500	0.000	0.500
'A' (ha)	0.357	0.000	0.357
'AC'	0.178	0.000	0.178

Pre-Development Flow

Return	Intensity (mm/hr)	Site Flow (L/s)	External Flow (L/s)	Total Flow (L/s)
2-yr	82.2	41	0	41
5-yr	114.2	57	0	57
10-yr	134.8	67	0	67
25-yr	162.2	88	0	88
50-yr	182.1	108	0	108
100-yr	200.8	124	0	124

Flows have been adjusted using 25-, 50-, and 100-yr factors of 1.1, 1.2, and 1.25 (To a maximum C of 1.0)

Post-Development Parameters

	Controlled	Uncontrolled	External	Total
'C'	0.683	0.000	0.000	0.683
'A' (ha)	0.375	0.000	0.000	0.375
'AC'	0.257	0.000	0.000	0.257

Post-Development Flow

Return	Intensity (mm/hr)	Peak Inflow (L/s)	Uncontrolled Flow (L/s)	Peak Rooftop Flow (L/s)	External Flow (L/s)	Total Flow (L/s)
2-yr	82.2	59	0	0	0	59
5-yr	114.2	81	0	0	0	81
10-yr	134.8	96	0	0	0	96
25-yr	162.2	127	0	0	0	127
50-yr	182.1	156	0	0	0	156
100-yr	200.8	179	0	0	0	179

Flows have been adjusted using 25-, 50-, and 100-yr factors of 1.1, 1.2, and 1.25 (To a maximum C of 1.0)

Post-to-Pre Comparison*

Return	Pre-Dev Total (L/s)	Post-Dev Total (L/s)	Percent Change
2-yr	41	59	44%
5-yr	57	81	42%
10-yr	67	96	43%
25-yr	88	127	44%
50-yr	108	156	44%
100-yr	124	179	44%

*Storage may be required, refer to Modified Rational Method Storage Calculation and Summary sheets if applicable

TRAFALGAR ENGINEERING LTD.

MODIFIED RATIONAL METHOD STORAGE

Based on Town of Oakville IDF Data

Project: South Service Road Realignment
Desc: First Submission OPA/RZA

Project No.: 1798
Prepared By: MW
Checked By: NAS

Pre-Development

Catchment Area (ha)	0.3567
Runoff Coefficient	0.50
TC (min)	10
Control Level	5-Yr

Pre-Development Peak Intensity: 114.2 mm/hr
Pre-Development Peak Discharge: 0.057 (cms)

Post-Development Uncontrolled

Catchment Area (ha)	0.0000
Runoff Coefficient	0.00
TC (min)	10
Control Level	100-Yr

Uncontrolled Peak Discharge: 0 (cms)

External Drainage

Catchment Area (ha)	0
Runoff Coefficient	0.00
TC (min)	10
Control Level	**100-Yr**

External Peak Discharge: 0 (cms)

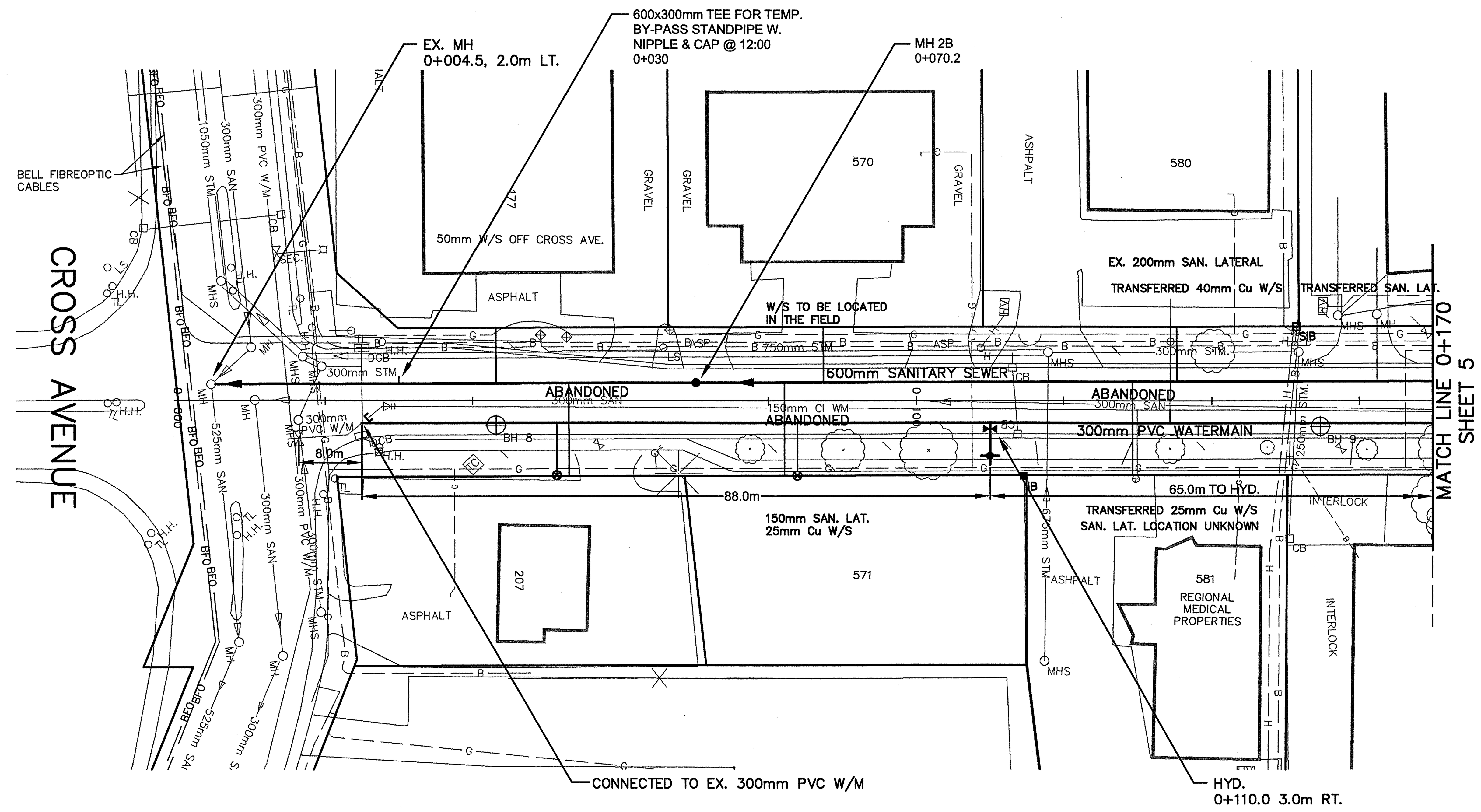
Post-Development Controlled

Catchment Area (ha)	0.3754	
Runoff Coefficient	0.85	(1.25 Adj. Factor)
Time of Concentration	10	
Control Level	100-Yr	

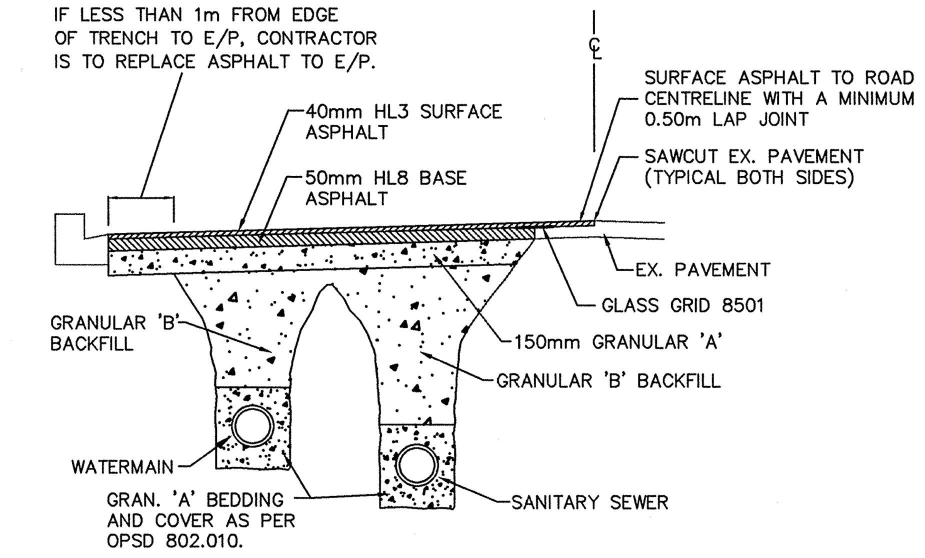
Post-Development Peak Intensity: 200.8 mm/hr
Post-Development Peak Discharge: 0.179 (cms)
Allowable Release Rate: 0.057 (cms)

Storm Duration T_D (min)	Intensity $i = A \times T_D^{-C}$ (mm/hr)	Inflow Rate $Q_P = CiA/360$ (m^3/s)	Average Roof Discharge (m^3/s)	Max. Release Rate $Q_A = Ci_{2YR}A$ (m^3/s)	Inflow Volume $V_I = 60Q_PT_D$ (m^3)	Outflow Volume $V_O = 30Q_A(T_D+T_C)$ (m^3)	Storage $S = V_I - V_O$ (m^3)
10	200.80	0.179	0.000	0.057	107.3	34.0	73.4
15	158.27	0.141	0.000	0.057	126.9	42.4	84.4
20	131.37	0.117	0.000	0.057	140.4	50.9	89.5
25	112.72	0.100	0.000	0.057	150.6	59.4	91.2
30	98.99	0.088	0.000	0.057	158.7	67.9	90.8
35	88.43	0.079	0.000	0.057	165.4	76.4	89.0
40	80.03	0.071	0.000	0.057	171.1	84.9	86.2
45	73.19	0.065	0.000	0.057	176.0	93.4	82.7
50	67.49	0.060	0.000	0.057	180.4	101.9	78.5
55	62.68	0.056	0.000	0.057	184.3	110.3	73.9
60	58.55	0.052	0.000	0.057	187.8	118.8	68.9
90	42.35	0.038	0.000	0.057	203.7	169.8	34.0
120	33.49	0.030	0.000	0.057	214.8	220.7	0

APPENDIX ‘F’



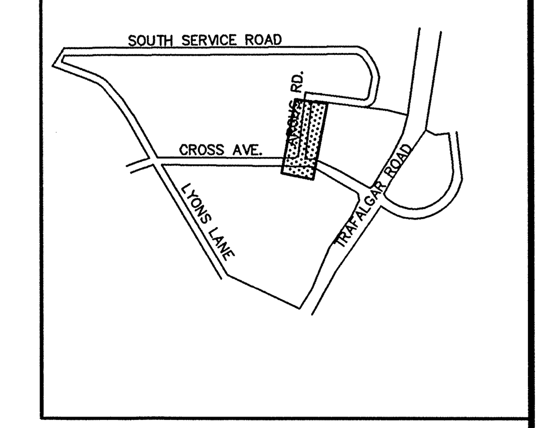
ARGUS ROAD

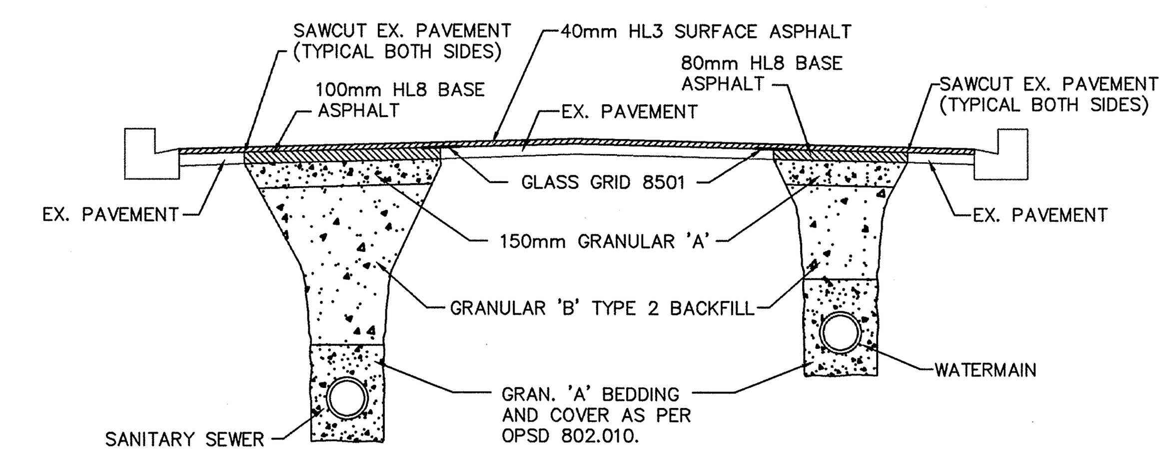


LYONS LANE (SOUTH OF CROSS AVE.)
ROAD RESTORATION DETAIL

N.T.S.

NOTE: ASPHALT DRIVEWAY RESTORATION IS TO BE FULL WIDTH OF DRIVEWAY WITH 50mm HL3A.

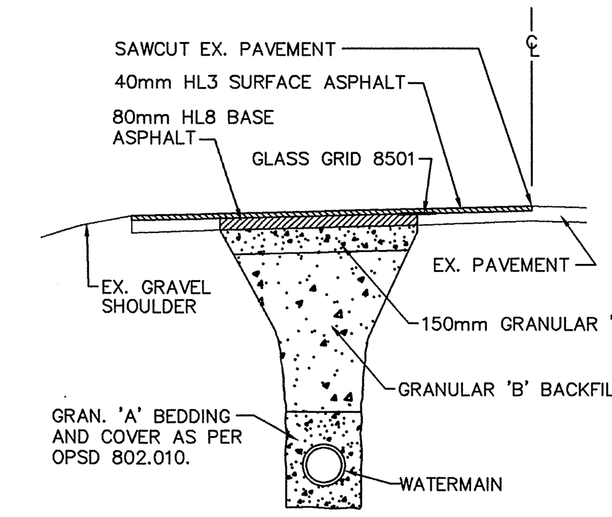




ARGUS ROAD AND SOUTH SERVICE ROAD
ROAD RESTORATION DETAIL

N.T.S.

NOTE: ASPHALT DRIVEWAY RESTORATION IS TO BE FULL WIDTH OF DRIVEWAY WITH 50mm HL3A.

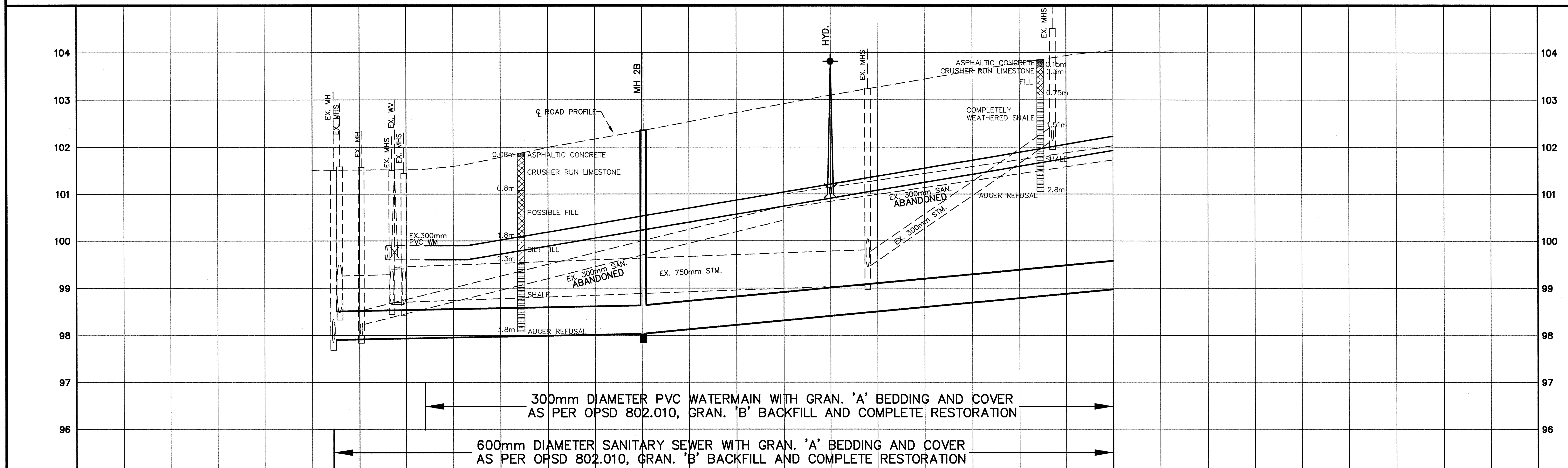


LYONS LANE (NORTH OF CROSS AVE.)
ROAD RESTORATION DETAIL

N.T.S.

NOTE: ASPHALT DRIVEWAY RESTORATION IS TO BE FULL WIDTH OF DRIVEWAY WITH 50mm HL3A.

SEE SHEET 1 FOR GENERAL NOTES.



℄ ELEVATIONS			101.51	101.59	101.78	102.00	102.17	102.35	102.54	102.73	102.92	103.10	103.27	103.44	103.62	103.78	103.94	104.04
WATERMAIN INVERTS																		
SANITARY SEWER INVERTS	W. 97.98 E. 97.84	N. 97.87	65.8m @ 0.24%					S. 98.03 N. 98.06	114.2m @ 0.92%									
CHAINAGE	0+000	0+004.5	0+020		0+040		0+060	0+070.2	0+080		0+100		0+120		0+140		0+160	

Nº	Date	By	REVISIONS	MANU	CAD
2	OCT. 08	E.W.S.	AS CONSTRUCTED		X
1	FEB. 05	C.S.J.	MH 2A ADDED	X	X

Design	BK	Ch'kd		Date: JANUARY 2003
Drawn	EWS	Ch'kd		

Scale Horiz. 1:500 Vert. 1:50

References

APPROVALS

Municipal

Regional

Director, Engineering Services

Manager, Design Services

Field Notes: REGION BOOK 675

Stamp

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Halton

WATERMAIN AND SANITARY SEWER REPLACEMENT ON
ARGUS ROAD
IN THE TOWN OF OAKVILLE
FROM CROSS AVE. TO 180m NORTH

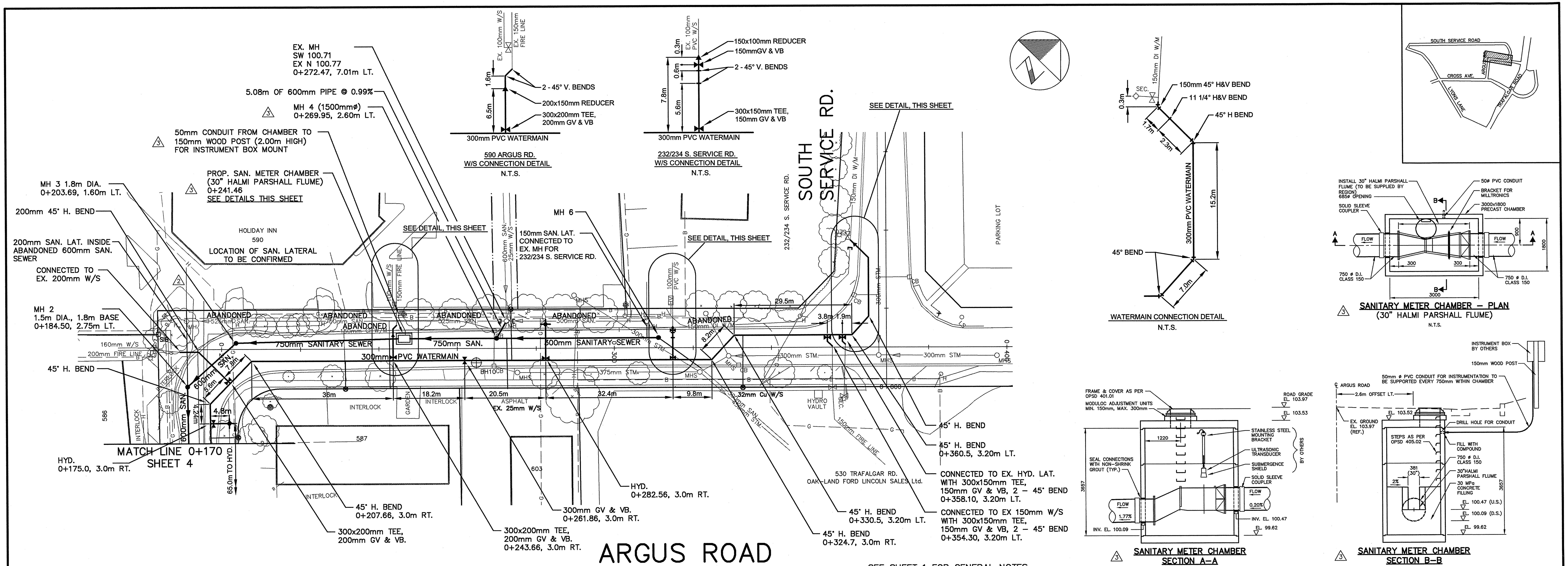
Consultant File Nº: O-14703

CONTRACT Nº: WS-1782-05

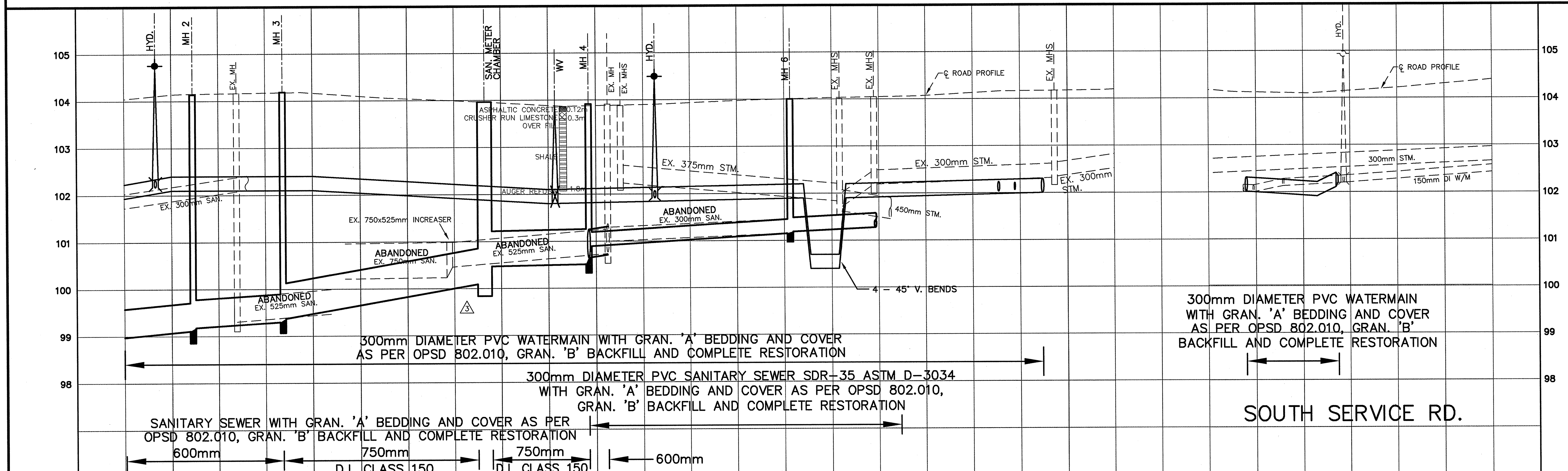
Drawing Nº: SHEET 4 OF 5

O-14703

PR-1782-05 4 of 5



SEE SHEET 1 FOR GENERAL NOTES.
SEE SHEET 4 FOR RESTORATION DETAILS.



℄ ELEVATIONS	104.14	104.16	104.17	104.17	104.10	104.04	103.99	103.94	103.88	103.88	103.90	103.93	103.97	104.00	104.03	104.05	104.07	104.13	104.17	104.18	104.19	104.12	104.15	104.30

WATERMAIN INVERTS	
SANITARY SEWER INVERTS	114.2m @ 0.92% ; S. 99.11 ; NE 99.17 ; 16.4m @ 0.79% ; SW 99.30 ; E. 99.36 ; 41.30m @ 1.50% ; W 99.98 ; E 100.33 ; 22.0m @ 0.20% ; W. 100.38 ; E. 100.75 ; NE 100.66 ; 41.3m @ 0.86% ; W. 101.12 ; SE 101.30
CHAINAGE	0+184.50 ; 0+200 ; 0+203.69 ; 0+220 ; 0+240 ; 0+245 ; 0+248 ; 0+269.95 ; 0+280 ; 0+300 ; 0+340 ; 0+360 ; 0+380 ; 0+020 ; 0+040 ; 0+060

NO	Date	By	REVISIONS	MANU	CAD
4	OCT. 08	E.W.S.	AS CONSTRUCTED		X
3	FEB. 05	C.S.J.	KEN. NOZ. CHANGED TO H.P. FLUME	X	X
2	FEB. 05	C.S.J.	HOLIDAY INN SANITARY LATERAL ADDED	X	X
1	JAN. 05	E.W.S.	W/M CONNECTION ON S. SERVICE RD.	X	X

Design BK Ch'kd
Drawn EWS Ch'kd
Date JANUARY 2003
Horiz. 1:500
Vert. 1:50
References
APPROVALS
Field Notes REGION BOOK 675
Municipal
Stamp
Regional
Director, Engineering Services
Manager, Design Services

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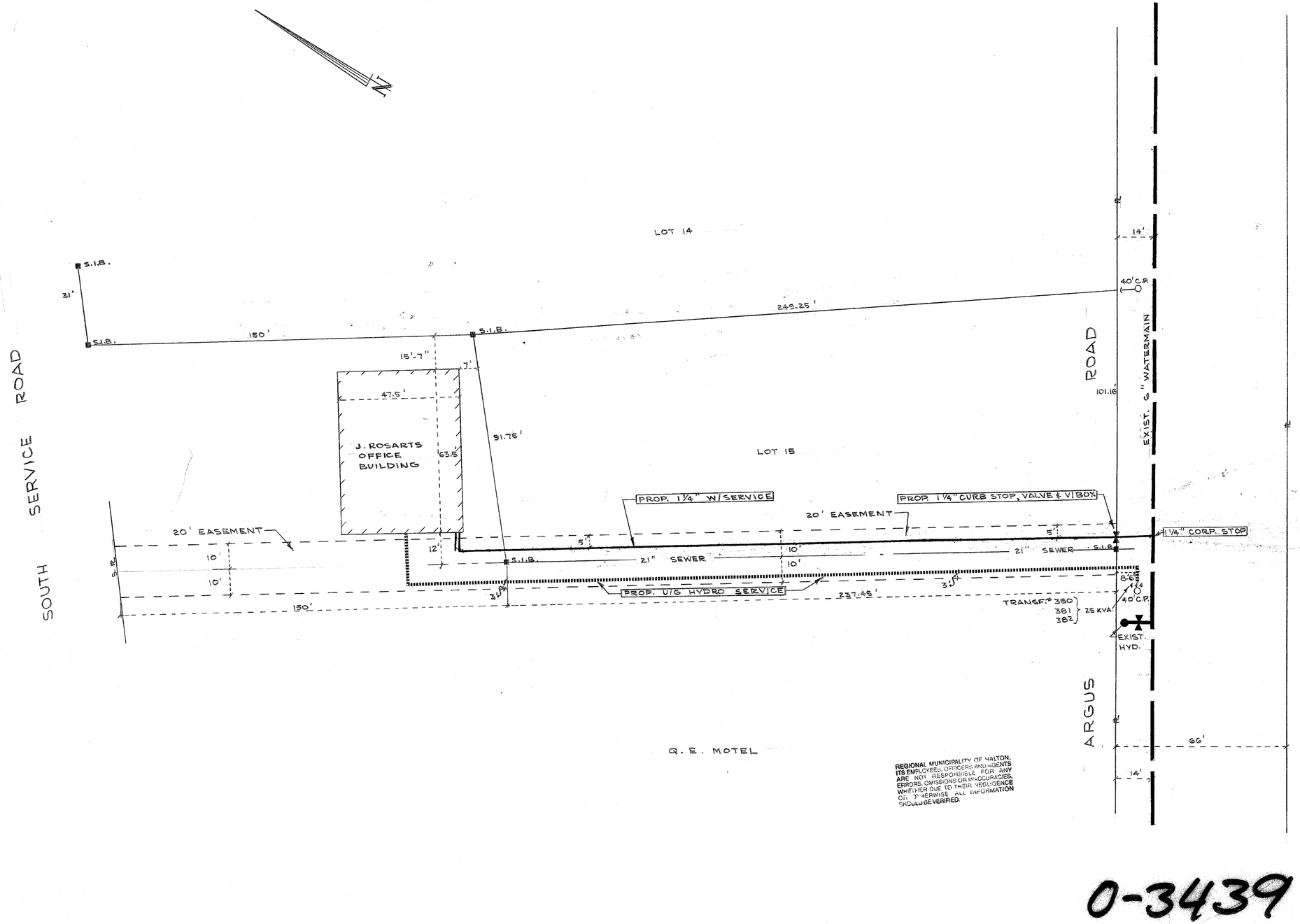
Halton

WATERMAIN AND SANITARY SEWER REPLACEMENT ON ARGUS ROAD

IN THE TOWN OF OAKVILLE
FROM 180m N. OF CROSS AVE. TO 40m E. OF SOUTH SERVICE RD.

Consultant File No O-14704
CONTRACT No WS–1782–05
Drawing No SHEET 5 OF 5

O-14704



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LEGEND

———	PROP. W/SERVICE
▪▪▪▪▪▪▪	PROP. U/G HYDRO SERV.
———	EXIST. WATERMAIN

MICROFILMED BY KODAK JAN. 29, 1973

PROP. W/SERVICE & U/G HYDRO SERVICE FROM ARGUS RD. TO J. ROSARTS BUILDING.

1" = 20'

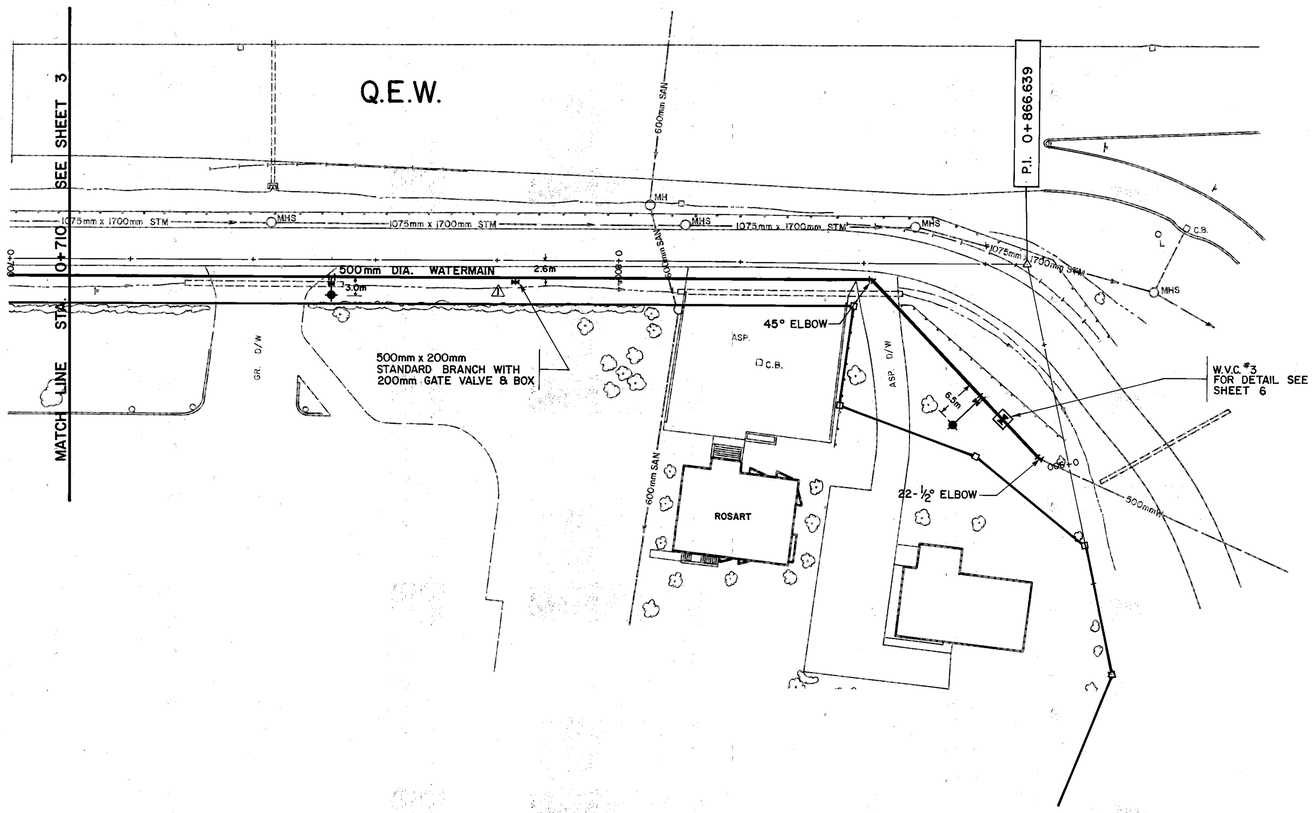
G.M.N. NOV. 19/69

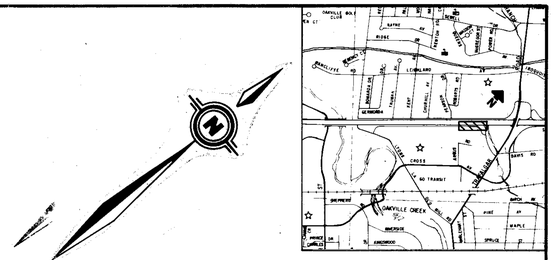
W - 718

0-3439

0-3439

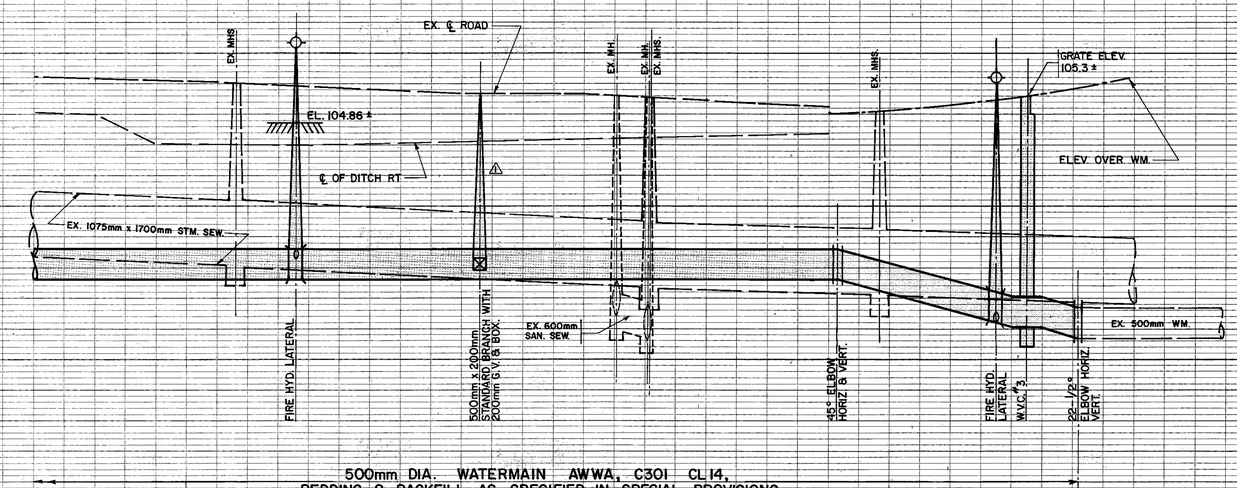
METRIC





WATERMAIN DATA

ITEM	STATION	℄ CONSTR. OFFSET	STD.	INVERT ELEV.	REMARKS
FIRE HYD. & SEC. G.V.	0+753.333	2.6m RT.	441	102.300	BRANCH TANGENT TOP
500mm x 200mm BRANCH WITH 200mm G.V. & BOX	0+783.333	2.6m RT.	405	102.300	BRANCH OFF ℄
45° ELBOW HORIZ. & VERT.	0+841.386	2.6m RT	421	102.300	
FIRE HYD. & SEC. G.V.	0+886.468	11.6m RT	441	101.643	BRANCH TANGENT BOTTOM
W.V.C. #3	0+890.774	8.9m RT	—	101.541	FOR DETAIL SEE SHEET 6
22-1/2° ELBOW HORIZ. & VERT.	0+897.985	4.5 m RT	421	EX.101.353	



500mm DIA. WATERMAIN AWWA, C301 CL 14,
BEDDING & BACKFILL AS SPECIFIED IN SPECIAL PROVISIONS

164.188m @ 0.00% | 102.300 | 29.714m @ -2.64% | 101.517 | 101.517 | EX.101.353

4.193m @ -0.00%

6.343m @ -2.59%

WATERMAIN INVERTS

0+710 | 0+720 | 0+740 | 0+760 | 0+780 | 0+783 | 0+800 | 0+820 | 0+841.386 | 0+889.002 | 0+892.578 | 0+897.985

CHAINAGE

№	Date	By	REVISIONS
⚠2	22/02/82	M.P.S.	AS CONSTRUCTED
⚠1	16/03/81	M.P.S.	BRANCH ADDED STA. 0+783

Design	G.E.R.	Checked	Date NOV. 1980
Drawn	M.P.S.	Checked	

Scale HORIZ. 10 5 0 10
VERT.

REFERENCES

APPROVALS

Municipal

FIELD NOTES

STAMP

Regional

81-01-26
DIRECTOR OF PUBLIC WORKS

81-01-23
MANAGER OF DESIGN

MUNICIPALITY

THE REGIONAL MUNICIPALITY OF
Halton
PUBLIC WORKS DEPARTMENT

TITLE

500mm DIA. WATERMAIN
SOUTH SERVICE ROAD
TOWN OF OAKVILLE
STA. 0+710 TO STA. 0+920

MUNICIPAL DRAWING №

REGIONAL DRAWING № 0-4221

CONTRACT № W-570-81

SHEET 4 OF 6

0-4221

APPENDIX ‘G’

QUEEN ELIZABETH WAY

SOUTH SERVICE ROAD

FUT. LIMIT OF SOUTH SERVICE ROAD

EX. PROPERTY BOUNDARY

PR. PROPERTY BOUNDARY

ROAD CONVEYANCE

EX. 500mmø CPP WATERMAIN

STM. SEWER (BY OTHERS)

STM MH8
TG=105.47
E INV.=104.15

71.0m – 300mmø STM @ 0.7%

19.0m – 300mmø STM @ 0.7%

STM MH7
TG=104.96
W INV.=103.65
E INV.=103.62

STM MH6
TG=104.80
W INV.=103.49
SE INV.=103.44

32.5m – 300mmø STM @ 0.7%

STORMWATER STORAGE CHAMBERS
VOL.=30.4m³

CB TG=105.17

CB TG=105.15

CB TG=104.71

250mmø CB LEAD @ 2.0%

CB TG=105.35

CB TG=105.44

INV.=104.05
REFER TO MECHANICAL FOR CONTINUATION

INV.=104.16
REFER TO MECHANICAL FOR CONTINUATION

INV.=103.84
REFER TO MECHANICAL FOR CONTINUATION

INV.=103.76
REFER TO MECHANICAL FOR CONTINUATION

INV.=103.45
REFER TO MECHANICAL FOR CONTINUATION

14m MTO SETBACK

LIMIT OF U/G PARKING

LOADING

CONCRETE AREA

CB TG=105.09

TOWER A

RESIDENTIAL

TOWER B

NON-RESIDENTIAL

590 ARGUS ROAD

TOWER C

CB TG=105.18

AIR SHAFT

TRENCH DRAIN

CB TG=105.24

SAN LAT
INV.=99.88

SEE MECH FOR CONT.

MECH ROOM (P1)

200mmø FIRELINE
150mmø DOMESTIC (RESIDENTIAL)
100mmø DOMESTIC (NON-RESIDENTIAL)

200mmø FIRE SERVICE

REFER TO MECHANICAL FOR CONTINUATION

AD TG=104.10

VB

5.0m – 300mmø SAN @ 2.0%

SAN MH1A
TG=104.39
N INV.=99.78
S INV.=99.63

EX. SAN MH77453X
(TO BE REMOVED)

EX. SAN MH29682A
TG=104.10
E INV.=99.76
SW INV.=99.30

EX. 41.3m – 750mmø SAN. @ 1.50%

EX. 16.4m – 600mmø SAN @ 0.73%

EX. 18.6m – 300mmø SAN @ 2.0%

EX. SAN MH29683A
TG=104.06
NE INV.=99.17
N INV.=99.26
S INV.=99.11

EX. 114.2m – 600mmø SAN @ 0.92%

ARGUS ROAD

EX. 900mmø CPP WATERMAIN

PROPOSED VALVE CAMBER AS PER REGION STD 402.080 (CONNECT WATER SERVICE TO EXISTING WATERMAIN)

300x300x200mm TEE

EX. 22.0m – 750mmø SAN. @ 0.20%

EX. SAN MH54242A
TG=103.80
E INV.=100.33
W INV.=99.98

EX. SAN MH29684A
TG=103.73
N INV.=100.66
W INV.=100.38
E INV.=100.41

EX. 41.3m – 300mmø SAN. @ 0.86%

33.0m – 750mmø SAN @ 0.6%

EX. 300mmø PVC WATERMAIN

EX. 375mmø STM. @ 0.80%

EX. STM MH6
TG=103.90
W INV.=102.40
E INV.=102.22

EX. SAN MH29685A
TG=104.36
N INV.=100.71±
S INV.=100.71±

EX. SAN MH4642A
TG=104.81
N INV.=101.14±
S INV.=101.11±

EX. SAN MH40854A
TG=104.85
N INV.=101.52±
S INV.=101.49±

EX. 6.10m EASEMENT PART 11 PLAN 20R-15677 SUBJECT TO A RIGHT-OF-WAY AS IN INST. NO 105451 & 106047

EX. 58.4m – 600mmø WATER

EX. 25mmø WATER SERVICE (TO BE RELOCATED TO SOUTH SERVICE ROAD)

EX. 57.0m – 600mmø SAN @ 0.6% (TO BE RELOCATED TO SOUTH SERVICE ROAD)

EX. STM MH5
TG=104.51
NW INV.=103.21
SE INV.=103.16

SAN MH5A
TG=104.41
N INV.=101.36
SE INV.=101.33

226 SOUTH SERVICE ROAD
(TO BE EXPROPRIATED BY OTHERS & SERVICES TO BE DISCONNECTED AT THE MAIN BY OTHERS)

33.0m – 675mmø SAN @ 0.5%

232 & 234 SOUTH SERVICE ROAD

EX. PROPERTY BOUNDARY

34.5m – 300mmø STM @ 0.7%

ROAD CONVEYANCE

STM MH4
TG=104.22
NW INV.=102.92
S INV.=102.87

SAN MH4A
TG=104.15
NW INV.=101.17
S INV.=101.14

32.0m – 675mmø SAN @ 0.5%

32.0m – 300mmø STM @ 0.7%

STM MH3
TG=103.92
NW INV.=102.65
S INV.=102.60

SAN MH3A
TG=103.87
NW INV.=100.98
S INV.=100.95

STORMWATER STORAGE TANK
PUMP TO STM MH1B
Qallow=0.192m³/s
PLAN AREA=171.6m²
RE-USE VOL.=302.2m³
QUANTITY VOL.=368.2m³
VOL. REQ=670.4m³

IMBRIUM JELLYFISH FILTRATION SYSTEM (SIZE & MODEL TO BE CONFIRMED)

10.0m –375mmø PVC STM @ 1.0%

STM MH1B
TG=104.00
W INV.=102.60
E INV.=102.57

STM INV.=102.63

1.5m –375mmø STM @ 2.0%

STM MH2
TG=103.71
N INV.=102.45
W INV.=102.46
S INV.=102.34

6.0m – 375mmø STM @ 0.7%

STM OGS
TG=103.71
N INV.=102.30
S INV.=102.27

38.5m – 675mmø SAN @ 0.5%

SAN MH2A
TG=103.76
N INV.=100.68
E INV.=101.03
W INV.=100.61

DCB

EX. STM MH8
(TO BE REMOVED)

EX. 47.3m – 300mmø STM @ 0.7%

EX. SAN MH164275A
TG=103.91

EX. SAN MH29686A
TG=103.80
W INV.=101.12
SE INV.=101.30

9.0m – 300mmø SAN @ 1.0%

21.0m – 375mmø PVC STM @ 0.5%

(TO BE ABANDONED)

STM MH1
TG=103.86
N INV.=102.73
W INV.=102.69
E INV.=102.59

EX. STM MH5
TG=104.02
W INV.=101.89
NW INV.=101.85
SE INV.=101.70

NON-RESIDENTIAL

AIR SHAFT

LIMIT OF U/G PARKING

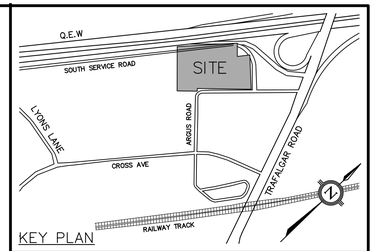
PR. PROPERTY BOUNDARY

EX. PROPERTY BOUNDARY

586 ARGUS ROAD

CONSTRUCTION NORTH

KEY PLAN



LEGEND

- PROPOSED STORM SEWER + MANHOLE
- EXISTING STORM SEWER + MANHOLE
- PROPOSED WATER SERVICE
- EXISTING WATERMAIN
- EXISTING SANITARY SEWER + MANHOLE
- PROPOSED SANITARY SEWER + MANHOLE
- PROPERTY BOUNDARY
- PROPOSED CATCHBASIN
- PROPOSED WATER METER
- PROPOSED FIRE HYDRANT
- PROPOSED VALVE & BOX
- 153.78 PROPOSED FINISHED ELEVATION
- 153.46 EXISTING ELEVATION
- 153.46 EXISTING ELEVATION TO REMAIN
- EXISTING CATCHBASIN
- BH1 BOREHOLE
- PROPOSED AREA DRAIN
- PROPOSED RETAINING WALL
- PROPOSED TRENCH DRAIN

NO.	DATE	BY/DRAWN	REVISIONS
2	APR 06, 2023	MW/ZI	ISSUED FOR OPA/ZBA
1	MAR 24, 2023	MW/ZI	ISSUED FOR COORDINATION

CAD FILE: 17986S.dwg | PLOT SCALE: 1:1 | PLOT DATE: Apr 06, 2023

ELEVATION NOTE

ELEVATIONS ARE OF GEODETIC ORIGIN (CGVD-1928: 78), AND ARE DERIVED FROM GNSS OBSERVATIONS AND NATURAL RESOURCES CANADA'S GEOID MODEL HT2.0.

LOCAL BENCHMARK

CUT CROSS IN CONCRETE SIDEWALK, LOCATED ON THE SOUTH SIDE OF ARGUS ROAD, APPROXIMATELY 11.6 METRES FROM THE WESTERN CORNER OF THE BUILDING AT No. 587 ARGUS ROAD AND 5.3 METRES FROM A WATER VALVE IN THE ROAD, AS SHOWN ON THE FACE OF PLAN.
ELEVATION=104.28m

THE TOPOGRAPHIC DETAIL SHOWN HEREON WAS ACQUIRED ON MAY 17, 2022, BY J.D.BARNES LTD, LAND INFORMATION SPECIALISTS

LICENSED PROFESSIONAL ENGINEER
N. A. SYLVESTER
100199487
APRIL 6 2023
PROVINCE OF ONTARIO

DESIGNED BY

APPROVED BY

CONSULTANT
TRAFALGAR ENGINEERING
#1-481 MORDEN ROAD, OAKVILLE, ON, L6K 3W6
www.trafalgareng.com

PROJECT TITLE
DISTRIKT 590 ARGUS
PROPOSED RESIDENTIAL CONDOMINIUM DEVELOPMENT
DISTRIKT DEVELOPMENTS

LOCATION
590 ARGUS RD.
OAKVILLE, ONTARIO

DRAWING TITLE
SITE SERVICING PLAN

SCALE	1:300	DESIGN BY	MW
DRAWN BY	ZI	CHECKED BY	NAS
DATE	2022/10/26	SHEET	1 OF 2
PROJECT No.	1798		
PLAN No.	S1		

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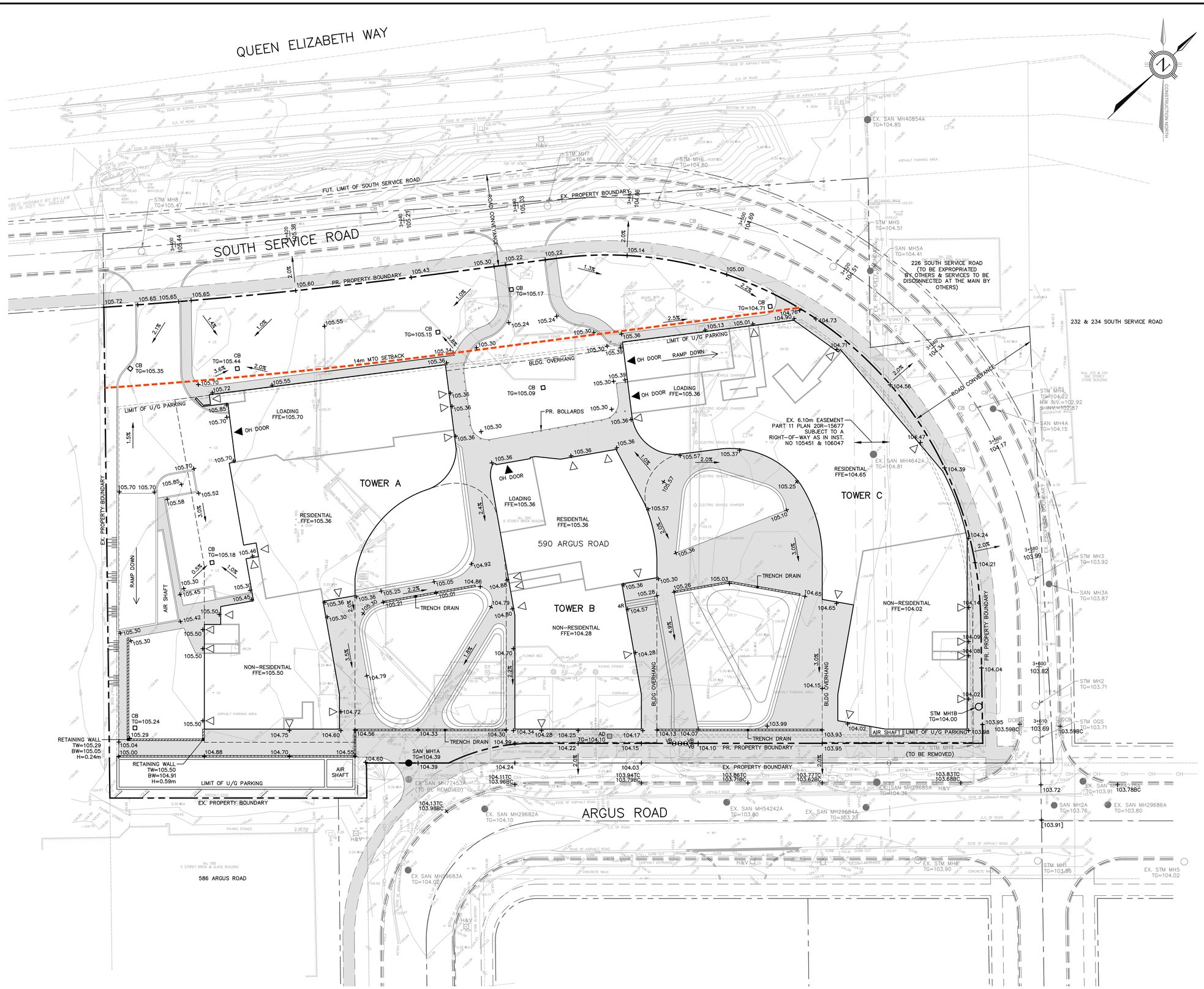
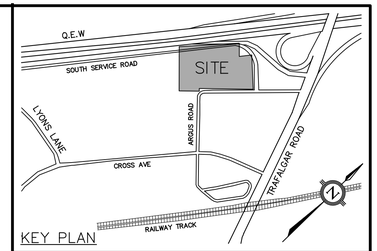
PLOTDATE: Apr 06, 2023 - 2:01pm





KEY PLAN

LEGEND

- PROPOSED CATCHBASIN
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED VALVE & BOX
- 153.78 PROPOSED FINISHED ELEVATION
- 153.46 EXISTING ELEVATION
- 153.46 EXISTING ELEVATION TO REMAIN
- EXISTING CATCHBASIN
- EXISTING STORM MH
- EXISTING SANITARY MH
- EXISTING FIRE HYDRANT
- BH BOREHOLE
- PROPOSED RETAINING WALL
- PROPOSED SLOPE (3:1)
- 1.0% PROPOSED SLOPE
- OVERLAND FLOW
- [153.78] INTERPOLATED EXISTING GRADE
- PROPOSED TRENCH DRAIN
- PROPOSED AREA DRAIN
- 103.00TC 102.85BC PROPOSED TOP & BOTTOM CURB ELEVATION
- PROPERTY BOUNDARY

NO.	DATE	BY/DRAWN	REVISIONS
2	APR 06, 2023	MW/ZI	ISSUED FOR OPA/ZBA
1	MAR 17, 2022	MW/ZI	ISSUED FOR COORDINATION

CAD FILE: 17986S.dwg | PLOT SCALE: 1:1 | PLOT DATE: Apr 06, 2023

ELEVATION NOTE

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LOCAL BENCHMARK

CUT CROSS IN CONCRETE SIDEWALK, LOCATED ON THE SOUTH SIDE OF ARGUS ROAD, APPROXIMATELY 11.6 METRES FROM THE WESTERN CORNER OF THE BUILDING AT No. 587 ARGUS ROAD AND 5.3 METRES FROM A WATER VALVE IN THE ROAD, AS SHOWN ON THE FACE OF PLAN.
ELEVATION=104.28m

THE TOPOGRAPHIC DETAIL SHOWN HEREON WAS ACQUIRED ON MAY 17, 2022, BY J.D.BARNES LTD, LAND INFORMATION SPECIALISTS

LICENSED PROFESSIONAL ENGINEER N. A. SYLVESTER 100199487 APRIL 6 2023 PROVINCE OF ONTARIO

DESIGNED BY | APPROVED BY

CONSULTANT
TRAFALGAR ENGINEERING
#1-481 MORDEN ROAD, OAKVILLE, ON, L6K 3W6
www.trafalgareng.com

PROJECT TITLE
590 ARGUS
PROPOSED RESIDENTIAL CONDOMINIUM DEVELOPMENT
DISTRIKT DEVELOPMENTS

LOCATION
590 ARGUS RD.
OAKVILLE, ONTARIO

DRAWING TITLE
SITE GRADING PLAN

SCALE	1:300	DESIGN BY	MW
DRAWN BY	ZI	CHECKED BY	NAS
DATE	2022/10/26	SHEET	1 OF 1
PROJECT No.	1798	PLAN No.	G1

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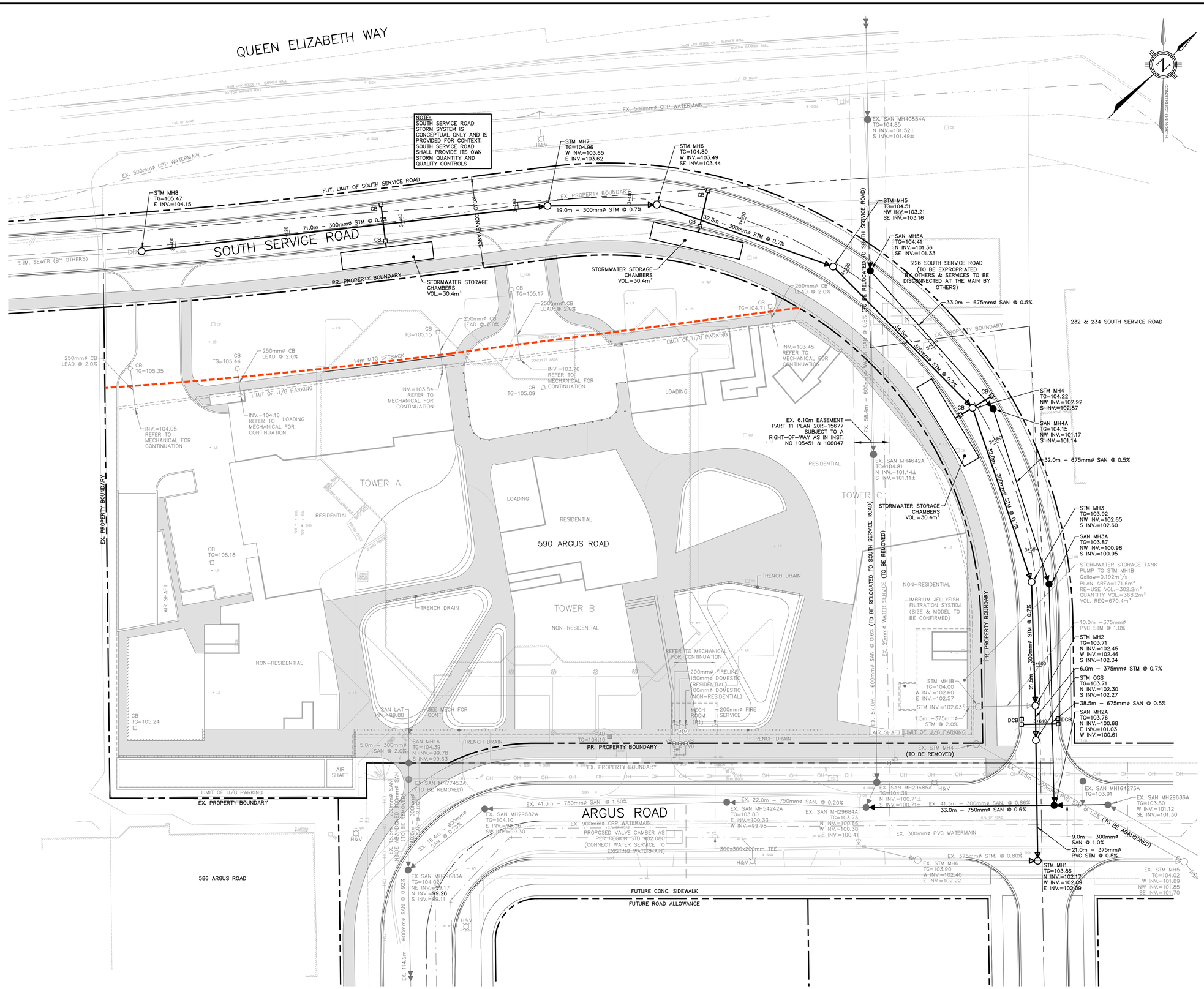
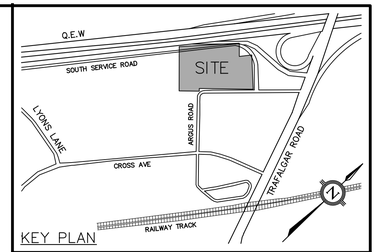
PLOTDATE: Apr 06, 2023 - 2:02pm





KEY PLAN

LEGEND

- PROPOSED STORM SEWER + MANHOLE
- EXISTING STORM SEWER + MANHOLE
- PROPOSED WATER SERVICE
- EXISTING WATERMAIN
- EXISTING SANITARY SEWER + MANHOLE
- PROPOSED SANITARY SEWER + MANHOLE
- PROPERTY BOUNDARY
- PROPOSED CATCHBASIN
- PROPOSED WATER METER
- PROPOSED FIRE HYDRANT
- PROPOSED VALVE & BOX
- 153.78 PROPOSED FINISHED ELEVATION
- 153.46 EXISTING ELEVATION
- 153.46 EXISTING ELEVATION TO REMAIN
- EXISTING CATCHBASIN
- BH PROPOSED BOREHOLE
- PROPOSED AREA DRAIN
- PROPOSED RETAINING WALL
- PROPOSED TRENCH DRAIN

NO.	DATE	BY/DRAWN	REVISIONS
2	APR 06, 2023	MW/ZI	ISSUED FOR OPA/ZBA
1	MAR 24, 2023	MW/ZI	ISSUED FOR COORDINATION

CAD FILE: 17980S.dwg | PLOT SCALE: 1:1 | PLOT DATE: Apr 06, 2023

ELEVATION NOTE

ELEVATIONS ARE OF GEODETIC ORIGIN (CCVD–1928: 78), AND ARE DERIVED FROM GNSS OBSERVATIONS AND NATURAL RESOURCES CANADA'S GEOID MODEL HT2.0.

LOCAL BENCHMARK

CUT CROSS IN CONCRETE SIDEWALK, LOCATED ON THE SOUTH SIDE OF ARGUS ROAD, APPROXIMATELY 11.6 METRES FROM THE WESTERN CORNER OF THE BUILDING AT No. 587 ARGUS ROAD AND 5.3 METRES FROM A WATER VALVE IN THE ROAD, AS SHOWN ON THE FACE OF PLAN.
ELEVATION=104.28m

THE TOPOGRAPHIC DETAIL SHOWN HEREON WAS ACQUIRED ON MAY 17, 2022, BY J.D.BARNES LTD, LAND INFORMATION SPECIALISTS

LICENSED PROFESSIONAL ENGINEER N. A. SYLVESTER 100199487 APRIL 6 2023 PROVINCE OF ONTARIO

DESIGNED BY

APPROVED BY

CONSULTANT
TRAFALGAR ENGINEERING
#1-481 MORDEN ROAD, OAKVILLE, ON, L6K 3W6
www.trafalgareng.com

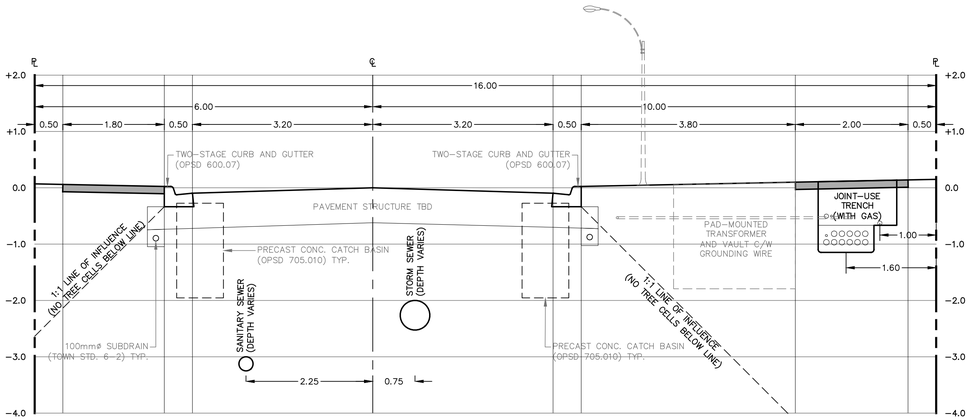
PROJECT TITLE
DISTRIKT 590 ARGUS
PROPOSED RESIDENTIAL CONDOMINIUM DEVELOPMENT
DISTRIKT DEVELOPMENTS

LOCATION
590 ARGUS RD.
OAKVILLE, ONTARIO

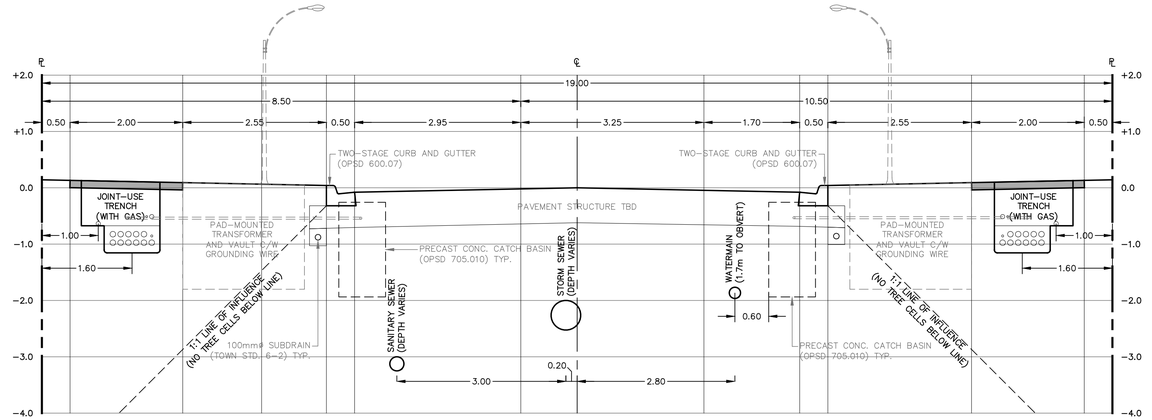
DRAWING TITLE
SOUTH SERVICE ROAD CONCEPTUAL SERVICING

SCALE	1:300	DESIGN BY	MW
DRAWN BY	ZI	CHECKED BY	NAS
DATE	2022/10/26	SHEET	2 OF 2
PROJECT No.	1798		
PLAN No.	S2		

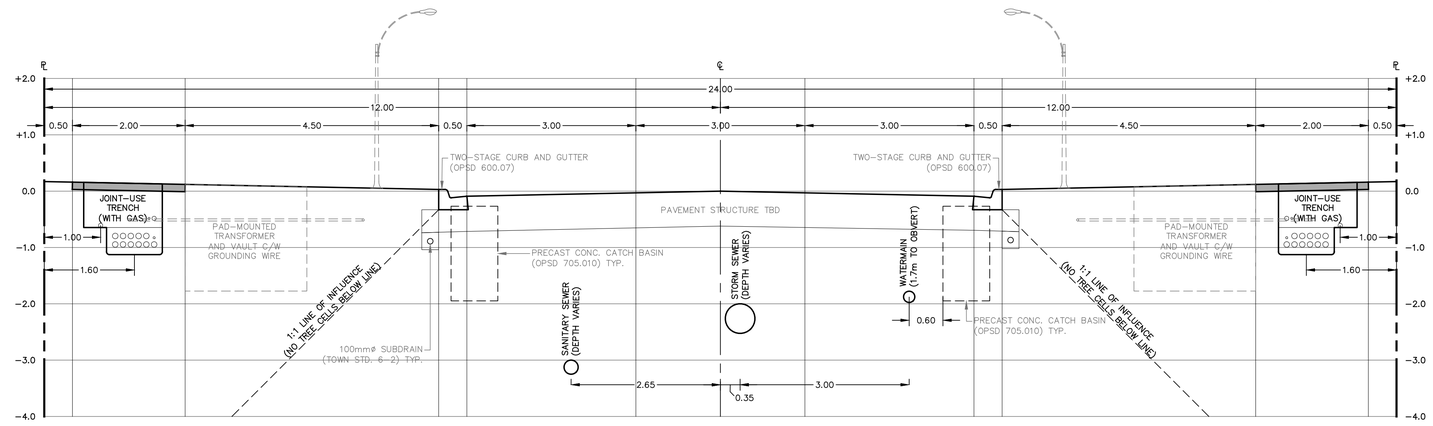
FILENAME: P:\1798 Distrikt 590 Argus\04-CAD\04-Rezoning_OPA\17980S.dwg
PLOTDATE: Apr 06, 2023 - 2:01pm



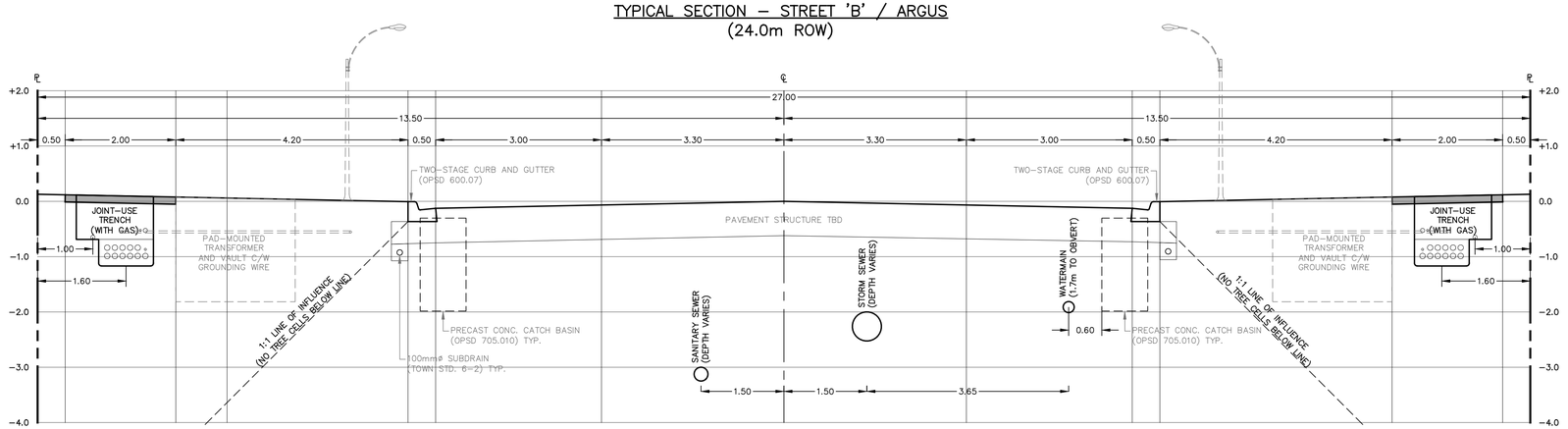
TYPICAL SECTION – SOUTH SERVICE ROAD
(16.0m ROW)



TYPICAL SECTION – STREET 'A' / STREET 'C'
(19.0m ROW)



TYPICAL SECTION – STREET 'B' / ARGUS
(24.0m ROW)



TYPICAL SECTION – ARGUS
(27.0m ROW)

KEY PLAN

NO.	DATE	BY/DRAWN	REVISIONS
0	0	0/0	0

CAD FILE: Distrikt Master Road Network rev2.dwg | LAYOUT SCALE: 1:1 | PLOT DATE: Jan 27, 2023

BENCHMARK
ELEVATIONS

NOTE
NOTE

DESIGNED BY

APPROVED BY

TRAFALGAR ENGINEERING
#1-481 MORDEN ROAD, OAKVILLE, ON, L6K 3W6
www.trafalgareng.com

LOCATION
MIDTOWN CORE
TOWN OF OAKVILLE

PROJECT TITLE
DISTRIKT MIDTOWN
DISTRIKT DEVELOPMENTS

DRAWING TITLE
TYPICAL ROAD CROSS SECTIONS

BAR SCALE
0 50 100

SCALE	1:1000	DESIGN BY	00
DRAWN BY	XXX	CHECKED BY	00
DATE	YYYY/M/DD	SHEET	0 OF 0

PROJECT No. 000
PLAN No. 000

FILENAME: P:\1736 166 South Service Road\04-CAD\06-Road Network\Distrikt Master Road Network rev2.dwg
PLOTDATE: Jan 27, 2023 - 8:55am