Functional Servicing and Stormwater Management Report

Proposed Residential Development
1225 Dundas Street E,
Mississauga, Ontario

Prepared for:
Dundix Realty Holdings
c/o SmartCentres REIT.

Prepared by:
Stantec Consulting Ltd.
300 - 675 Cochrane Drive
Markham ON L3R 0B8

Project No. 160623078

August 7, 2024

Stantec

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Prepared by_____

(signature)

Payman Fatahi, C.E.T., L.E.L., Project Manager, Community Development

Approved by _____

(signature)

Angelo Ligotti, P. Eng., Senior Principal, Community Development

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LIST OF APPENDICES

1.0 INTRODUCTION

Stantec Consulting Ltd. was retained by Dundix Realty Holdings c/o SmartCentres REIT (the "Client") to provide this Functional Servicing and Stormwater Management Report in support of a proposed residential development in the City of Mississauga, Ontario. The purpose of this report is to provide a servicing opinion regarding the availability of existing municipal infrastructure to support the proposed development on the subject lands.

1.1 SITE LOCATION AND DESCRIPTION

The 1.29 Ha site depicted in the aerial figure below is located at 1225 Dundas Street East in Mississauga, Ontario. The site currently consists of a commercial plaza and associated parking. It is bounded by Dundix Road to the north, a residential property to the east, Dundas Street East to the south, and Arena Road the west.

Figure 1-1: Site Location

1.2 SITE PROPOSAL

The site is proposed for conversion to a residential development consisting of 602 apartment and 40 townhouse units with associated amenity and vehicular access areas at grade level. A strip along Dundas Street East will be dedicated to the city as road widening, reducing the site area to 1.24 Ha. Parking will be provided at the underground level which will effectively encompass the entire site footprint below grade. The site concept is depicted below and also provided in **Appendix A**.

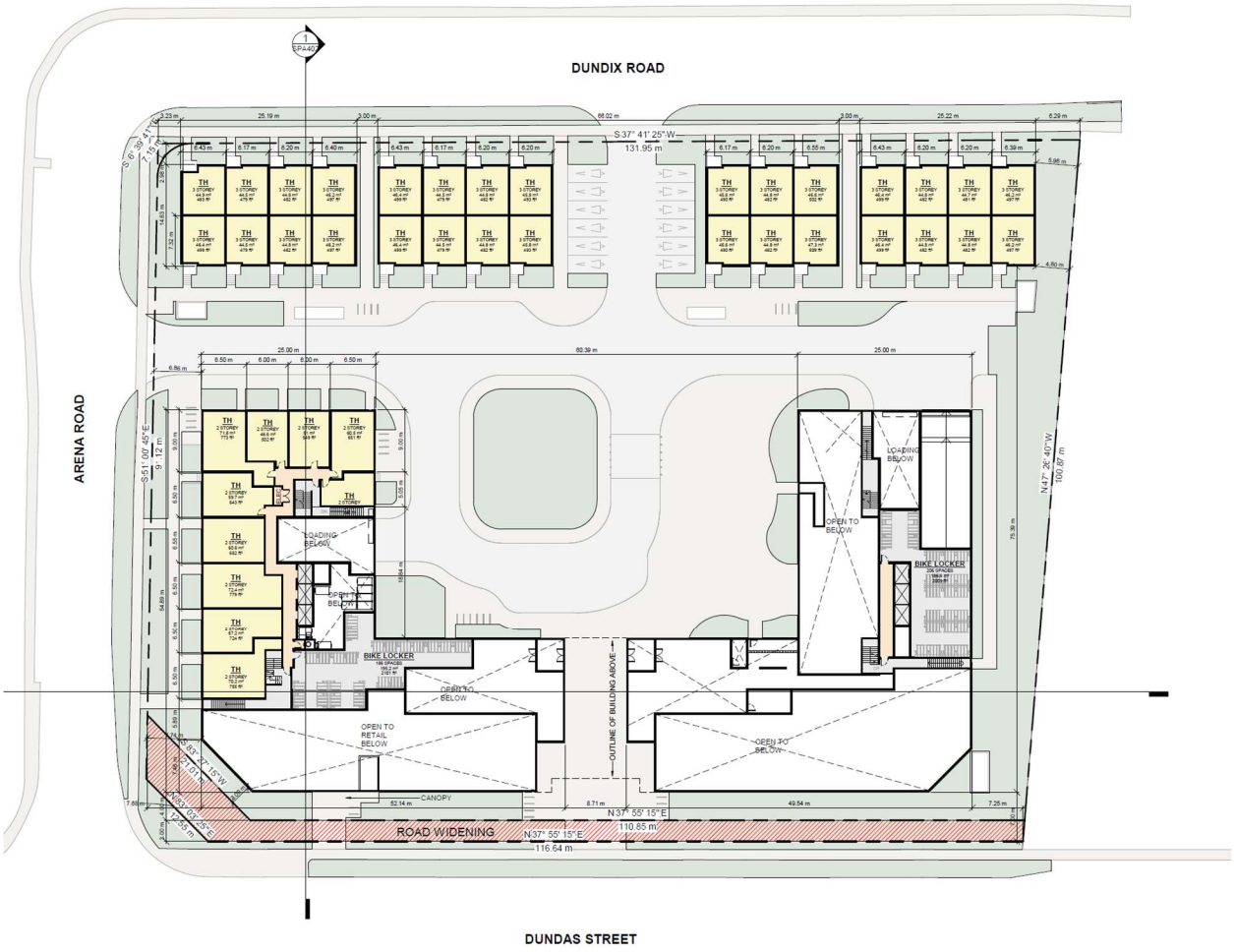


Figure 1-2: Site Concept

Site development statistics are shown on Table 1-1 below and also provided in **Appendix A**.

Table 1-1: Site Development Statistics

Function	Number of Units	Gross Floor Area (m^2)*	Equivalent Population**
Apartments (Unit Size > 750 ft^2)	45	-	135
Apartments (Unit Size =< 750 ft^2)	557	-	892
Townhouses	40	-	136
Commercial	-	626	18
Office	-	-	-
Totals	**642**	**-**	**1,181**

***Gross Floor Area only used in Non-Residential Equivalent Population determination in this report. See site statistics in Appendix A for complete data on Gross Floor Areas.**

**** Equivalent Population based on Region of Peel 2020 Development Charges Background Study:**

Residential PPU: Townhouse – 3.4, Large Apartment (>750 ft^2) – 3.0, Small Apartment (=<750 ft^2) – 1.6

Non-Residential: 1.0 employee per 36 m^2 GFA

1.3 CRITERIA AND BACKGROUND MATERIAL

The servicing scheme for the site shall be in accordance with guidelines set by the following agencies:

- City of Mississauga
- Region of Peel
- Credit Valley Conservation
- Ontario Provincial Standards
- Ministry of the Environment, Conservation and Parks
- Ministry of Transportation
- Ontario Building Code

The following background reports and materials have been used as reference:

- Region of Peel 2020 Water and Wastewater Master Plan for the Lake-based Systems
- Region of Peel 2020 Development Charges Background Study
- Drainage Area Plans and Plan/Profiles obtained from the city and region
- Draft Hydrogeological Investigation (Project 2202029) by GEI Consultants, June 24, 2022

2.0 STORM DRAINAGE AND STORMWATER MANAGEMENT

2.1 STORM DRAINAGE

A 525 mm to 750 mm storm sewer drains east along Dundix Road. A 600 mm storm sewer drains south along Arena Road and heads west on Dundas Street East. A 750 mm to 825 mm storm sewer drains east along Dundas Street East. There is also a 900 mm storm sewer draining west near the southern boundary of the neighboring property to the east through an easement that terminates at the southeastern corner of the subject site. This sewer is received by a 975 mm storm sewer that crosses Dundas Street East heading south. Topographical information and storm drainage plans obtained from the city indicate the existing site drainage is collected by this 975 mm storm sewer crossing Dundas Street East through a 525 mm site storm connection at the southeast corner. This same outlet will be maintained and used for post-development storm drainage out of the site. The site receives no external flows under existing conditions, and this will remain to be the case under proposed.

As the majority of development will rest on an underground parking level, site drainage will mostly be captured by area drains connected to the building mechanical storm system. A storm sewer will be required along the northern periphery to capture drainage collected by front yard area drains for the townhouse units facing Dundix Road.

The municipality has indicated they prefer permanent groundwater dewatering to be discharged into the municipal storm sewer rather than sanitary. Preliminary investigation by the hydrogeological consultant indicates the site groundwater is not suitable for discharge into the city storm sewer system without pretreatment, and therefore pretreatment measures will be required. These measures will be reviewed and established at Site Plan Application in coordination with the mechanical and hydrogeological consultants. Long-term dewatering peak flow rate is estimated by the hydrogeologist to be 14,100 L/day (See excerpt in **Appendix B**) which translates to 0.2 L/s.

A stormwater storage tank located at the basement level will provide quantity control and retention volumes. A preliminary overview of the storm servicing is provided on C-101 – Grading and Servicing Plan in **Appendix A**. A detailed site servicing design will be provided at Site Plan Application which will include final tank location and orifice sizing. Background materials on site drainage obtained from the city are provided in **Appendix E**.

2.2 STORMWATER MANAGEMENT

The site is situated within the Applewood Creek watershed under the jurisdiction of Credit Valley Conservation. The following City of Mississauga and Credit Valley Conservation stormwater management criteria are appliable:

- Quantity Control: The 100-year post-development flow shall be controlled to the 2-year predevelopment level. An adjustment factor of 1.25 is applied to the post-development runoff coefficient.

- Runoff Volume Reduction: The first 5mm of runoff shall be retained on-site and managed by way of infiltration, evapotranspiration, or re-use.

- Quality Control: Long term 80% removal of Total Suspended Solids (TSS) on an average annual basis is to be provided.

2.2.1 Quantity Control

Storm events up to and including the 100-year storm will be controlled to the 2-year predevelopment level. As the site is already a developed property, a maximum runoff coefficient of 0.50 was used to determine the 2-year predevelopment level to be used as the target controlled release rate for the site. The total release rate will be set to ensure the sum of controlled stormwater release rate plus long-term groundwater dewatering discharge rate remains within the target release rate. Preliminary calculations indicate approximately 270 m^3 of storage will be required for quantity control. The following tables summarize the quantity control parameters for the site. Pre and post-development storm drainage plans and preliminary quantity control calculations are provided in **Appendix B**. A high-level overview of the storm servicing and location of the underground storm tank are provided on C-101 – Grading and Servicing Plan in **Appendix A**. A detailed storm servicing design including orifice sizing and location will be provided at Site Plan Application.

Table 2-1: Pre-development 2-Year Flow Targets

Storm	Drainage Area	Area (Ha)	Runoff Coefficient (C)	Peak Flow (L/s)
2-year	A1-PRE	1.24	0.50	103.1

Table 2-2 – Post-development 100 Year Flows

Drainage Area	Area (Ha)	Adjusted Runoff Coefficient (C)	Target Release Rate (L/s)	Controlled Release rate (L/s)	Groundwater Release Rate (L/s)	Total Release Rate (L/s)	Required Storage (m3)	Provided Storage (m3)
A1-POST	1.24	0.79	103.1	100.0	0.2	100.2	267	267

2.2.2 Water Balance

To address the city's stormwater runoff volume reduction criteria, as a minimum, the first 5mm of runoff is to be retained on-site and managed by way of infiltration, evapotranspiration, or re-use. The total retention volume is determined by multiplying total impervious area by 5mm. Therefore, 0.73ha x 5mm = 37 m^3 of runoff needs to be retained on-site. A passive reservoir below the outlet at the base of the stormwater tank at the basement level can be an option for storing this volume.

As the entirety of the site essentially sits on an underground parking level, infiltration is not an available option for processing the retained stormwater. Rainwater re-use by way of pumping this reservoir to various uses around the site (such as irrigation) is recommended for achieving this goal. As landscape and mechanical designs advance on this project, this report will be amended at Site Plan Application to provide details on the available re-use mechanisms.

2.2.3 Quality Control

Long-term average removal of 80% of total suspected solids (TSS) is indicated for meeting the city runoff quality control requirements. A CDS PMSU2025-5 stormwater treatment unit (or approved equivalent) upstream of the site storm outlet can provide the required treatment to satisfy this criteria. The supplier unit sizing sheet has been provided in **Appendix B**.

Quality treatment will also be applied to groundwater prior to discharge into the municipal storm sewer. This system will be inside the building and sizing and selection is normally done by the mechanical and hydrogeological consultants. This component of the design will be captured at Site Plan Application in coordination with the wider consultant team.

An overview of the stormwater management measures are provided on C-101 – Grading and Servicing Plan in **Appendix A**. A detailed storm servicing design will be provided at Site Plan Application.

3.0 SANITARY SERVICING

A 250 mm sanitary sewer drains east along Dundix Road. A 375 mm sanitary sewer drains south along Arena Road and is received by a 375 mm sanitary sewer on the north side of Dundas Street East that drains East. A 300 mm sanitary sewer on the south side of Dundas Street East also drains east. Records obtained from the city and region indicate the existing site drains into the 375 mm sanitary sewer along Arena Road through a 150 mm site sanitary outlet. This outlet will be capped and abandoned in place, and a new connection will be established into the Arena Road sewer system with a 200 mm sanitary pipe outlet.

Based on the site statistics provided in Table 1-1 in Section 1.2, the estimated site peak sanitary flow will be **15.2 L/s**. A capacity analysis of five sewer runs downstream of the site connection was completed based on existing and proposed conditions to assess impact of the added flow on the system. Calculations indicate the 15% flow increase does not surcharge the five analyzed

downstream sewers. The sanitary drainage area plan and sanitary design sheets have been provided in **Appendix C.** Drainage area and sewershed plans based on which surrounding drainage patterns were determined and upstream areas and populations were extrapolated are provided in **Appendix E**. An overview of the sanitary servicing is provided on C-101 – Grading and Servicing Plan in **Appendix A**. A detailed servicing design will be provided at Site Plan Application.

4.0 WATER SERVICING

A 250 mm watermain is available along both Dundix Road and Arena Road. Both roads also accommodate within their right-of-way a 2100 mm feedermain to which connection is not permitted by the region. A 300 mm watermain is available along Dundas Street East. Plans obtained from the city and region indicate the existing site connects into the 250 mm watermain along Arena Road with a 200 mm water connection for fire and domestic. This connection will be capped and abandoned in place. Due to the proposed function of the development as high density residential, the site is required by the region to connect into a minimum municipal watermain size of 300 mm. A new 250 mm connection will be established into the Dundas Street East 300 mm watermain and split near the property line into fire and domestic as per region standard 1-8-3.

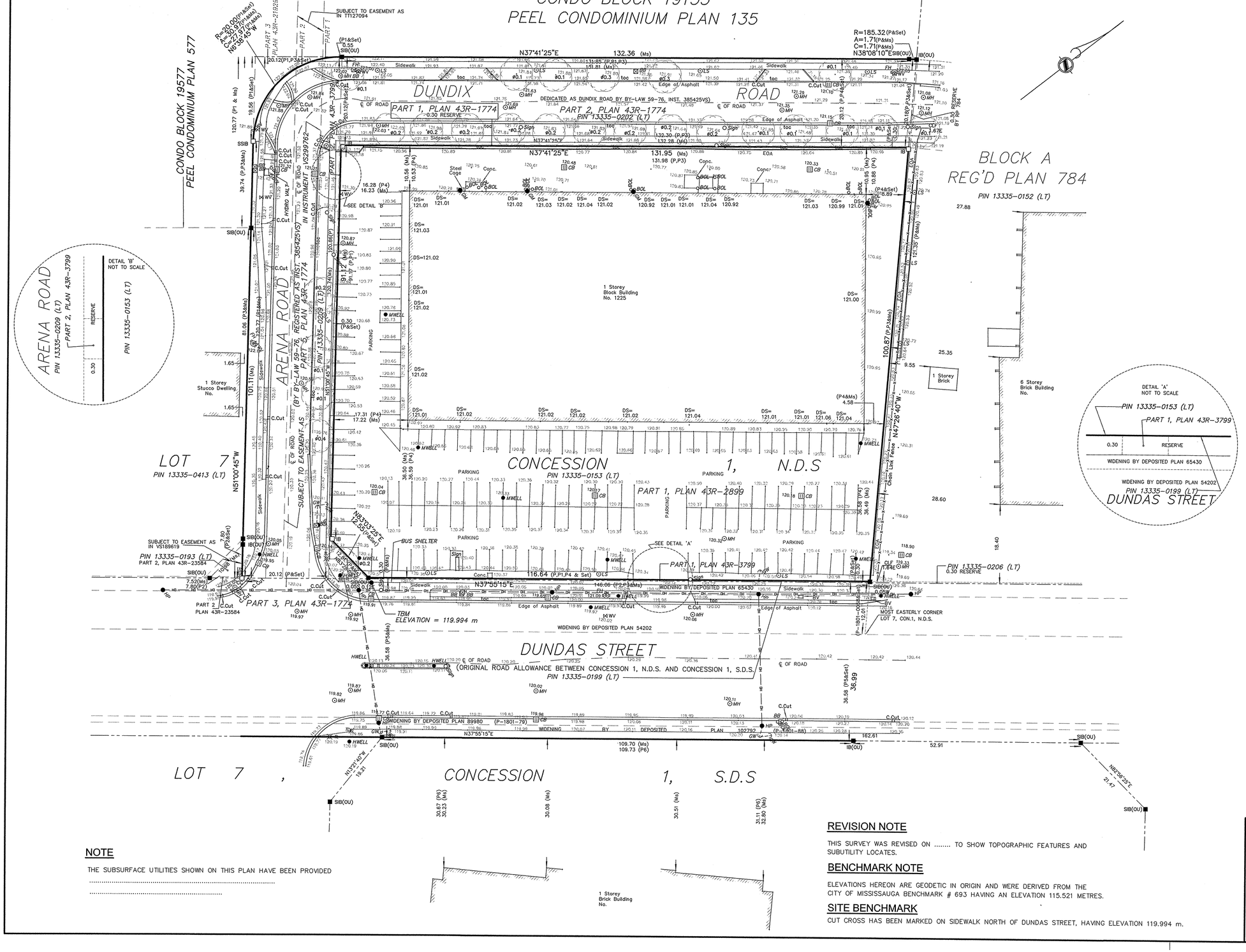
Based on the site statistics provided in Table 1-1 in Section 1.2, the estimated site Total Peak Flow + Fire Demand will be **194.4 L/s**. A hydrant flow test conducted on a nearby hydrant serviced by the 300 mm watermain on Dundas Street East on June 15, 2022, indicates a flow of **6413 USGPM (404.6 L/s)** is available at 20 psi, which demonstrates the available municipal water infrastructure has the capacity to support the development.

The water demand calculation sheet and hydrant flow test report have been provided in **Appendix D**. An overview of the water servicing is provided on C-101 – Grading and Servicing Plan in **Appendix A**. A detailed servicing design will be provided at Site Plan Application.

5.0 GRADING

The natural topography of the site is in a southerly direction at a vertical relief of approximately 1.2 m. A retaining wall is utilized along the northern boundary of the existing site to interface with Dundix Rd while maintaining a relatively flat site. Under post-development conditions, the grading scheme ensures maintenance of existing drainage patterns and containment of drainage within the property boundary. Steps along the southern face of the townhouse blocks and stepped finished floor elevations allow for creation of suitable grading and accessibility conditions throughout the site as well as safe overland flow exit onto Dundas Street East through the street level corridor between the apartment buildings. A retaining wall will not be required to accommodate the proposed development plan. An overview of the site grading is provided on C-101 – Grading and Servicing Plan in **Appendix A**. A detailed grading design will be provided at Site Plan Application.

Appendix A SITE PROPOSAL AND ENGINEERING PLANS



PLAN OF SURVEY
SHOWING TOPOGRAPHIC FEATURES OF

PART OF LOT 7
CONCESSION 1
NORTH AND SOUTH OF DUNDAS STREET
CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL

DRAFT

SCALE 1:500

10 0 10 20 Metres

MAURO GROUP INC.
ONTARIO LAND SURVEYORS

METRIC

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

BEARING NOTE

BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B, BY REAL TIME NETWORK (TOPNET) OBSERVATIONS, UTM ZONE 17, NAD83 (CSRS) (2010).

BEARING ROTATION NOTE

ADJUST FOR BEARING COMPARISONS, A ROTATION OF 1°01'00" COUNTER-CLOCKWISE WAS APPLIED TO ASTRONOMIC BEARINGS ON PLAN 43R-2899 TO CONVERT TO UTM ZONE 17, NAD 83 (CSRS).

DISTANCE NOTE

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999746

LEGEND

■	DENOTES FOUND BAR
□	DENOTES PLANTED BAR
SIB	DENOTES STANDARD IRON BAR
CC	DENOTES CUT CROSS
IB	DENOTES IRON BAR
PB	DENOTES PLASTIC BAR
REG'D	DENOTES REGISTERED PLAN
Ms	DENOTES MEASURED
WIT	DENOTES WITNESS
OU	DENOTES ORIGIN UNKNOWN
P	DENOTES 43R-2899
P1	DENOTES 43R-21929
P2	DATED 43R-23584
P3	DENOTES 43R-1774
P4	DATED PLAN OF SURVEY BY UNWIN, MURPHY AND ESTEN, LTD DATED AUGUST 14, 1975
P5	DENOTES PLAN P-1801-88
P6	DENOTES PLAN OF SURVEY BY MARSHALL MACKLIN MONAGHAN LIMITED DATED JULY 22, 1976
NDS	DENOTES NORTH OF DUNDAS STREET
SDS	DENOTES SOUTH OF DUNDAS STREET
CB	DENOTES CATCH BASIN
HP	DENOTES HYDRO POLE
TL	DENOTES TRAFFIC LIGHT
BOL	DENOTES BOLLARD
LS	DENOTES LIGHT STANDARD
FH	DENOTES TOP OF HYDRANT
MWELL	DENOTES MONITORING WELL
HWELL	DENOTES HAND WELL
DS	DENOTES DOOR SILL
MH	DENOTES MANHOLE
GW	DENOTES GUY WIRE
WV	DENOTES WATER VALVE
BB	DENOTES BELL BOX
GM	DENOTES GAS METER
OH	DENOTES OVERHEAD WIRE
C.Cut	DENOTES CURB CUT
toc	DENOTES TOP OF CURB
EOA	DENOTES EDGE OF ASPHALT
TBM	DENOTES TEMPORARY BENCHMARK
BV	DENOTES BELL VALT

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 MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 10th DAY OF MAY, 2022

DRAFT

DATE

JAMES A. AGYEMANG B.Eng.
ONTARIO LAND SURVEYOR

NOTE

THE SUBSURFACE UTILITIES SHOWN ON THIS PLAN HAVE BEEN PROVIDED

.....

.....

REVISION NOTE

THIS SURVEY WAS REVISED ON ..... TO SHOW TOPOGRAPHIC FEATURES AND SUBUTILITY LOCATES.

BENCHMARK NOTE

ELEVATIONS HEREON ARE GEODETIC IN ORIGIN AND WERE DERIVED FROM THE CITY OF MISSISSAUGA BENCHMARK # 693 HAVING AN ELEVATION 115.521 METRES.

SITE BENCHMARK

CUT CROSS HAS BEEN MARKED ON SIDEWALK NORTH OF DUNDAS STREET, HAVING ELEVATION 119.994 m.

MAURO GROUP INC.
ONTARIO LAND SURVEYORS
2 HOLLAND DRIVE, UNIT 5, BOLTON, ONTARIO L7E 1E1
PHONE 905.951.6000 – FAX 905.857.4811
www.youngsurveying.ca – info@youngsurveying.ca

PARTY CHIEF: BP | DRAWN BY: IG | CHECKED BY: JA

CLIENT: SMART CENTRES

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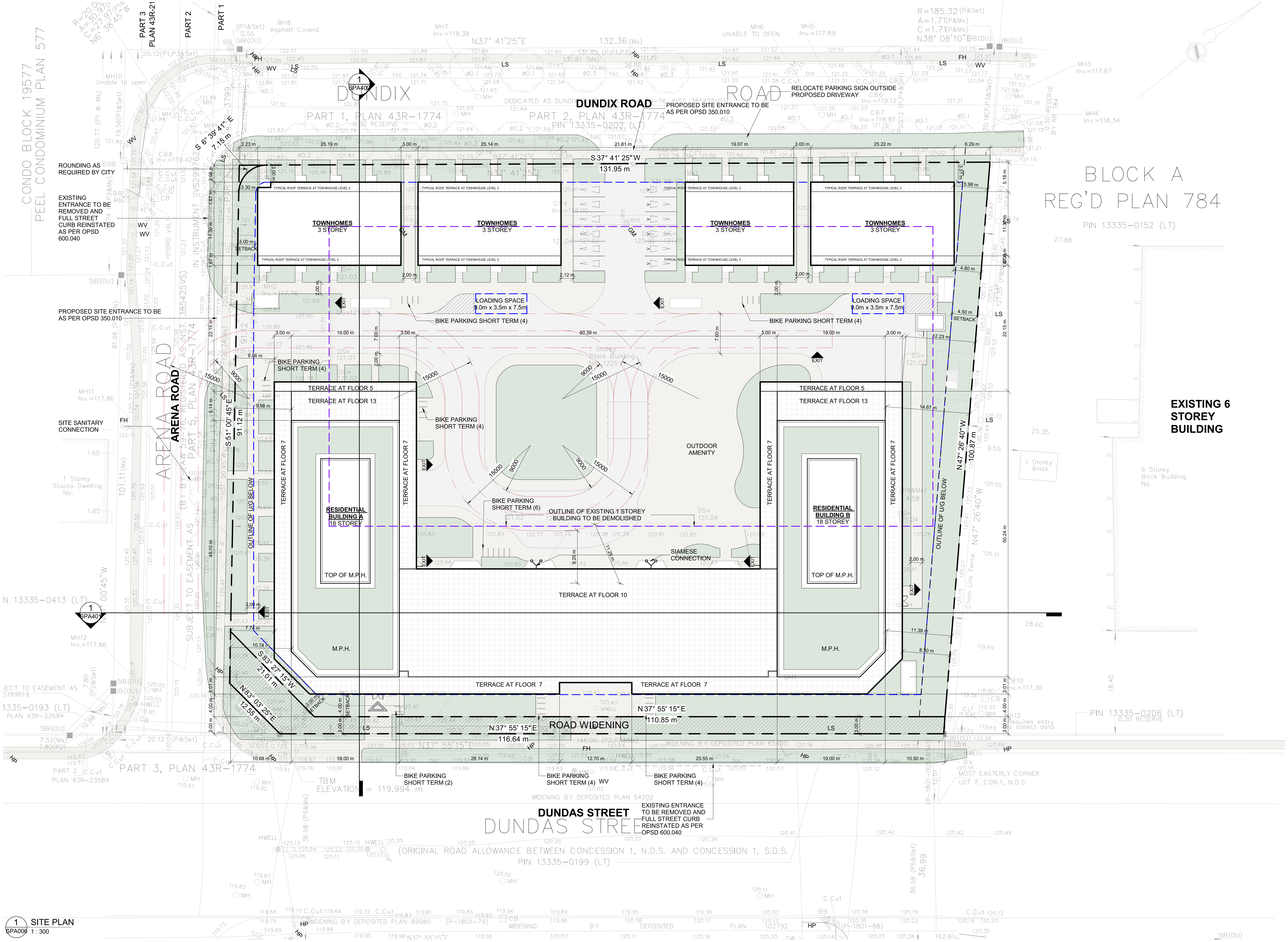
PROJECT No. 22-B7880



TURNER FLEISCHER

Turner Fleischer Architects Inc.
67 Lesmill Road
Toronto, ON, M3B 2T8
T 416 425 2222
turnerfleischer.com

LEGEND

- PRIMARY RESIDENTIAL ENTRANCE
- SECONDARY RESIDENTIAL ENTRANCE
- RETAIL ENTRANCE
- EXIT
- FIRE HYDRANT
- SIAMESE CONNECTION
- CONVEX MIRROR
- TRANSFORMER WITH CLEARANCES
- FIRE ROUTE SIGN
- 000.00 SPOT ELEVATION
- GAS/HYDRO METER
- ROAD WIDENING

#	DATE	DESCRIPTION	BY
1	July 08, 2022	OPA,ZBA & SPA Submission	

PROJECT
PROPOSED RESIDENTIAL MIXED-USE DEVELOPMENT
1225 Dundas Street E, Mississauga, ON

DRAWING
SITE PLAN / ROOF PLAN

PROJECT NO. 22.117P01
PROJECT DATE
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CHECKED BY Checker
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DRAWING NO. SPA006
REV. 1

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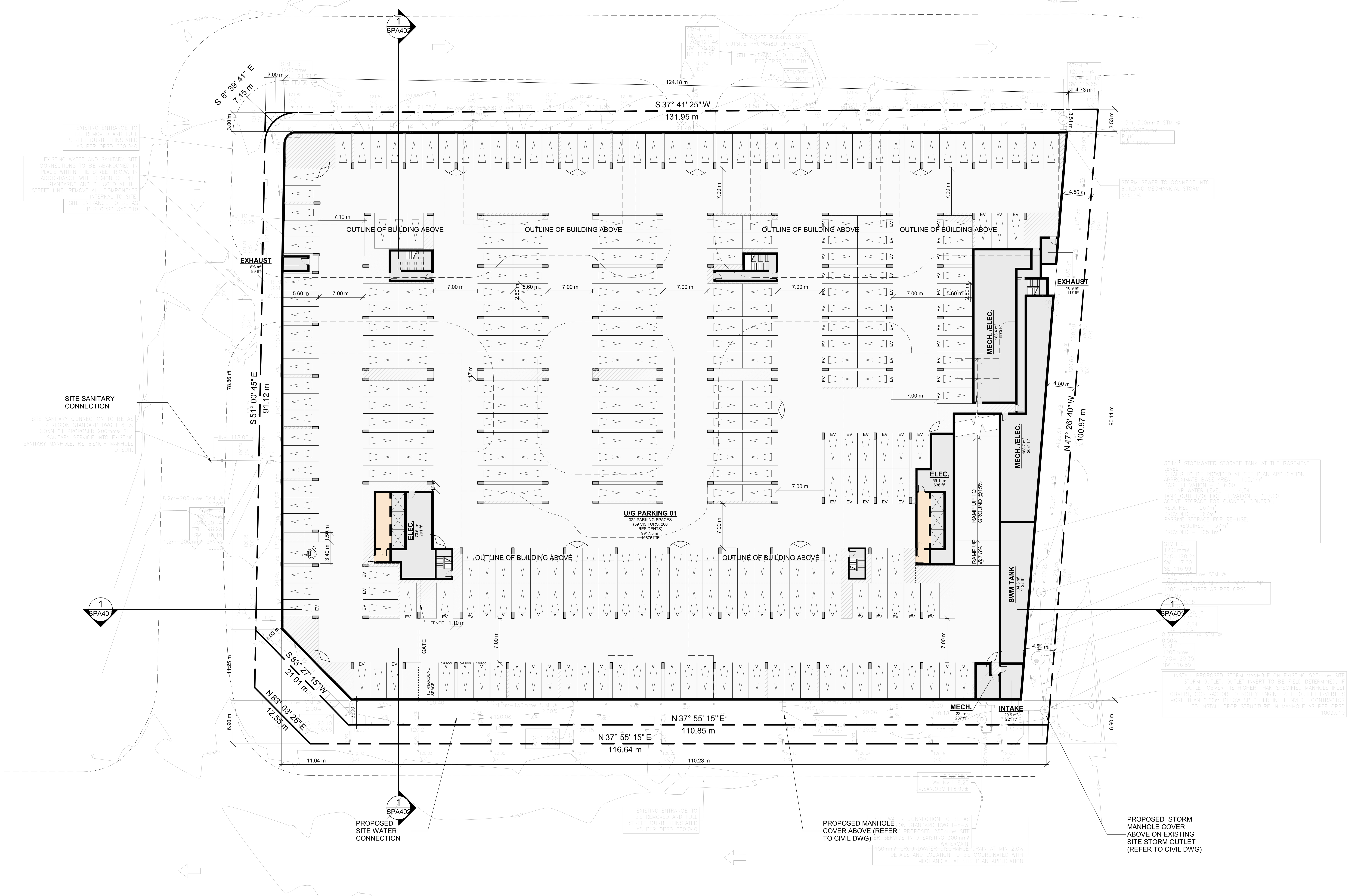

1 U/G 1
SPA102 1 : 300

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TURNER FLEISCHER

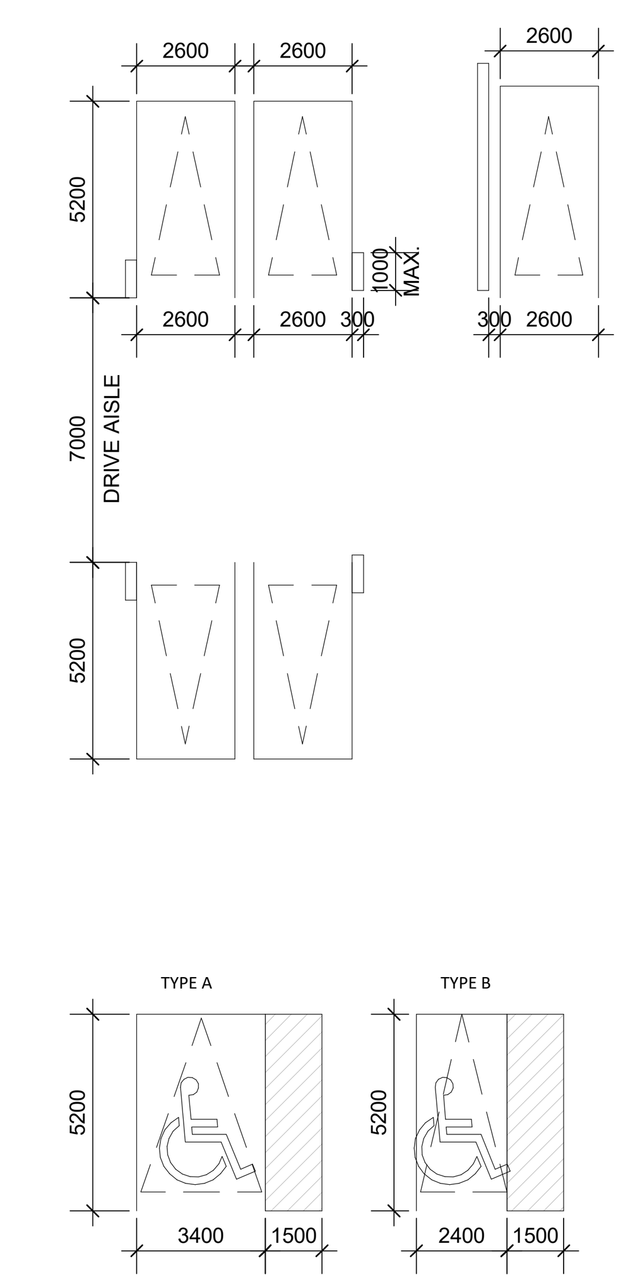
Turner Fleischer Architects Inc.

67 Lesmill Road
Toronto, ON, M3B 2T8
T 416 425 2222
turnerfleischer.com

TYPICAL PARKING DIMENSIONS:

AISLE WIDTH: MIN 7m

TYPICAL PARKING SPACE:
MIN 2.6 x 5.2 x 2.0m HIGH



LEGEND

WALL/COLUMN-MOUNTED CONVEX MIRRORS

V VISITOR PARKING

The minimum width of a parking space, other than an accessible parking space or parallel parking space, shall be increased to 2.6 m where the length of one side of the parking space abuts a building, structure or part thereof, except for a building, structure or part thereof, that extends 1.0 m or less into the front and/or rear of the parking space.

#	DATE	DESCRIPTION	BY
1	July 08, 2022	OPA,ZBA & SPA Submission	

PROJECT

PROPOSED RESIDENTIAL MIXED-USE DEVELOPMENT

1225 Dundas Street E, Mississauga, ON

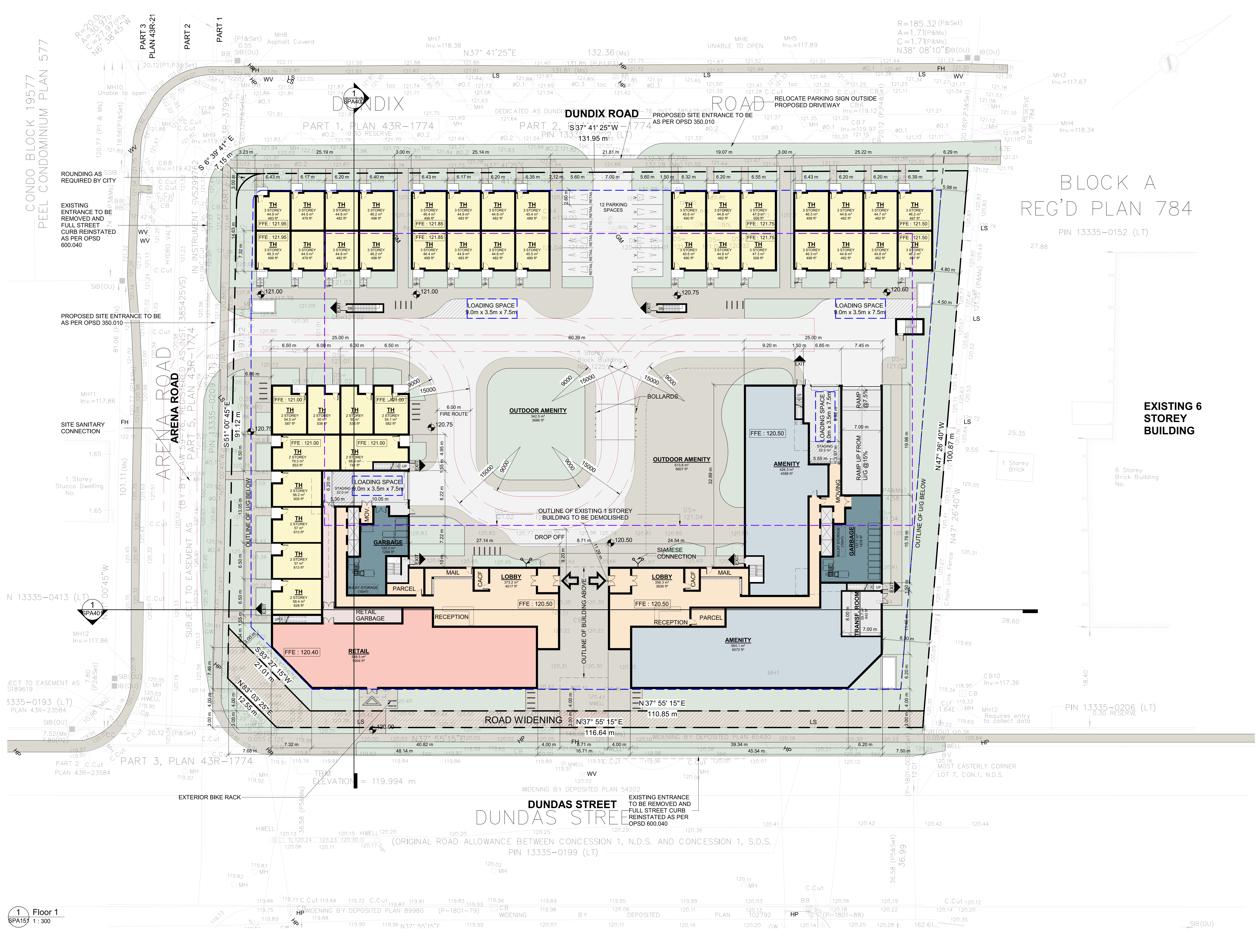
DRAWING

UNDERGROUND LEVEL 1

PROJECT NO.
22.117P01
PROJECT DATE

DRAWN BY
WJB
CHECKED BY
Checker
SCALE
As indicated

DRAWING NO.
SPA102
REV.
1



TURNER FLEISCHER

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LEGEND

- PRIMARY RESIDENTIAL ENTRANCE
- SECONDARY RESIDENTIAL ENTRANCE
- RETAIL ENTRANCE
- EXIT
- FIRE HYDRANT
- SIAMESE CONNECTION
- CONVEX MIRROR
- TRANSFORMER WITH CLEARANCES
- FIRE ROUTE SIGN
- 000.00 SPOT ELEVATION
- GAS/HYDRO METER
- ROAD WIDENING

#	DATE	DESCRIPTION	BY
1	July 08, 2022	OPA,ZBA & SPA Submission	

PROJECT
PROPOSED RESIDENTIAL MIXED-USE DEVELOPMENT
1225 Dundas Street E, Mississauga, ON

DRAWING
FLOOR 1

PROJECT NO. 22.117P01
PROJECT DATE
DRAWN BY WJB
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SCALE As indicated

DRAWING NO. SPA151
REV. 1

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PROJECT SUMMARY

MISSISSAUGA, ONTARIO

LAND USE	m²	ft²	%
BUILDING COVERAGE	5,162.3	55,567	41.6%
LANDSCAPING	5,149.7	55,431	41.5%
DRIVEWAY (VEHICULAR HARDSCAPE)	2,107.9	22,689	17.0%
TOTAL SITE AREA	**12,419.9**	**133,687**	100%
AREA OF R.O.W (ROAD WIDENING)	454.7	4,894	3.7%

PROJECT INFORMATION

	REQUIRED	PROVIDED
BUILDING HEIGHT		59.30m (18 STOREYS)
BUILDING SETBACKS		
NORTH SETBACK		8.3M(BUILDING) 4.8M (TOWNHOME)
SOUTH SETBACK		6.8M (BUILDING) 3.1M (TOWNHOME)
EAST SETBACK		4M (BUILDING)
WEST SETBACK		3.0M (TOWNHOME)
LOADING SPACE	2	4 (2 townhouse loading space)

GROSS FLOOR AREA SUMMARY

BLDG	USE	GFA m²	GFA ft²	FSI
BLDG BUILDIN G 1 +BUILDIN G 2	RETAIL	626.0	6,738	0.05
	SUBTOTAL NON-RESIDENTIAL	626.0	6,738	0.05
	RESIDENTIAL 642 UNITS	46,816.6	503,930	3.77
	SUBTOTAL RESIDENTIAL	46,816.6	503,930	3.77
	TOTAL	**47,442.6**	**510,668**	**3.82**

Last Updated: Tuesday, 23 July 2024 12:50:05 PM

DEFINITION

Mississauga Zoning By-Law NO. 0225-2007

GROSS FLOOR AREA

(GFA) - APARTMENT DWELLING ZONE

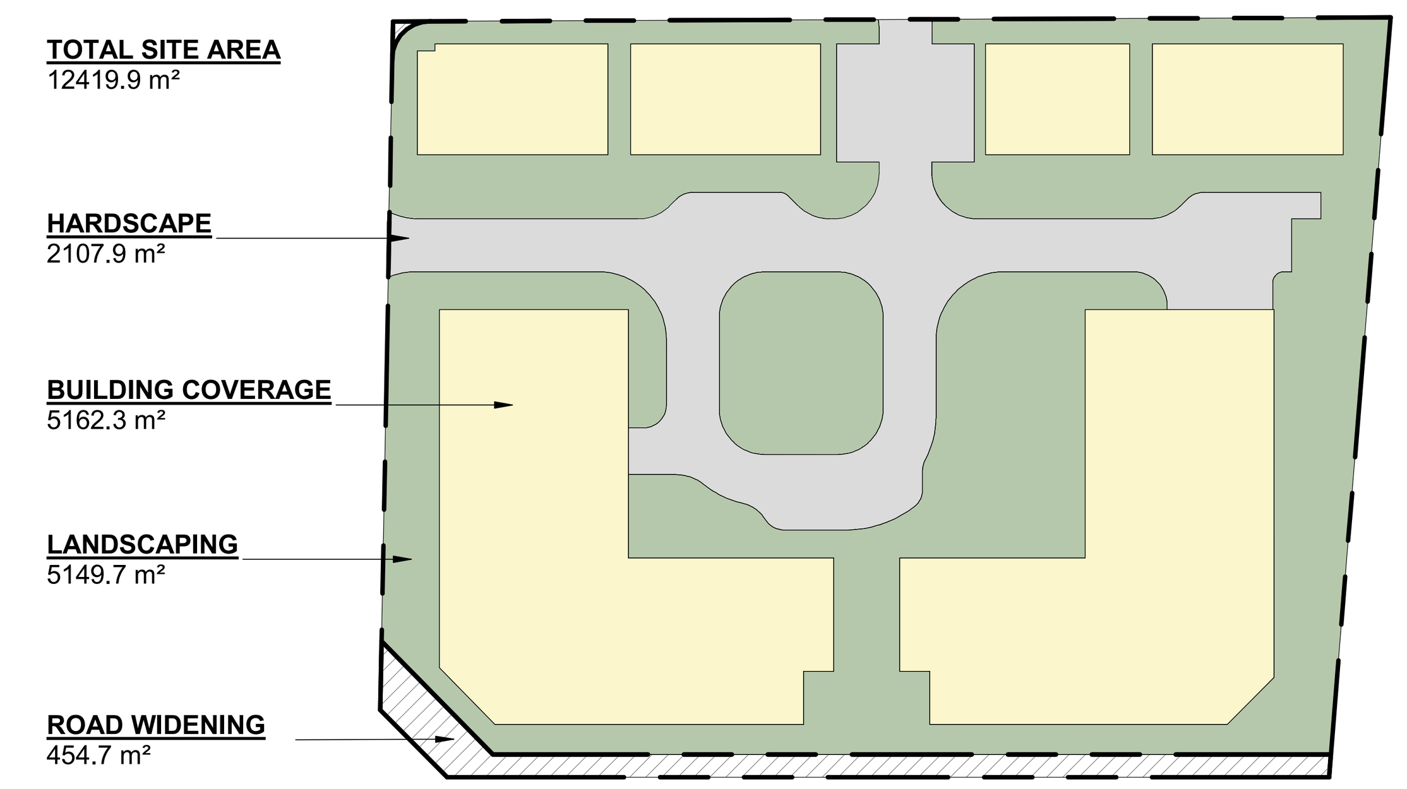
MEANS THE SUM OF THE AREAS OF EACH **STOREY** OF A **BUILDING** ABOVE OR BELOW **ESTABLISHED GRADE**, MEASURED FROM THE EXTERIOR OF OUTSIDE WALLS OF THE **BUILDING** INCLUDING FLOOR AREA OCCUPIED BY INTERIOR WALLS BUT EXCLUDING ANY PART OF THE **BUILDING** USED FOR **MECHANICAL FLOOR AREA**, STAIRWELLS, ELEVATORS, **MOTOR VEHICLE** PARKING, BICYCLE PARKING, STORAGE LOCKERS, BELOW-GRADE STORAGE, ANY ENCLOSED AREA USED FOR THE COLLECTION OR STORAGE OF DISPOSABLE OR RECYCLABLE **WASTE** GENERATED WITHIN THE **BUILDING**, COMMON FACILITIES FOR THE USE OF THE RESIDENTS OF THE **BUILDING**, A DAY CARE AND **AMENITY AREA**.

HEIGHT

I. MEANS, WITH REFERENCE TO THE HEIGHT OF A BUILDING, STRUCTURE OR PART THEREOF, EXCEPT A DETACHED, SEMI-DETACHED, DUPLEX OR TRIPLEX, THE VERTICAL DISTANCE BETWEEN THE ESTABLISHED GRADE AND: (0174-2017)
II. THE HIGHEST POINT OF THE ROOF SURFACE OF A FLAT ROOF; OR
III. THE MEAN HEIGHT LEVEL BETWEEN THE EAVES AND RIDGE OF A SLOPED ROOF.
IV. THE MEAN HEIGHT LEVEL BETWEEN THE EAVES AND HIGHEST POINT OF THE FLAT ROOF WHERE THERE IS A FLAT ROOF ON TOP OF A SLOPED ROOF; OR (0325-2008)
V. THE HIGHEST POINT OF A STRUCTURE WITHOUT A ROOF.

TOTAL FLOOR AREA SUMMARY

FLOORS	TFA m²	TFA ft²
U/G 1	10,825.4	116,525
FLOOR 1 to FLOOR 18	51,577.5	555,180
TOTAL	**62,402.9**	**671,705**



1 SITE AREA DIAGRAM
SPA002 1 : 1000

GROSS FLOOR AREA BREAKDOWN

BLDG	FLOOR	# OF UNITS	RESIDENTIAL SALEABLE m²	RESIDENTIAL SALEABLE ft²	RESIDENTIAL NON-SALEABLE m²	RESIDENTIAL NON-SALEABLE ft²	TOTAL RESIDENTIAL m²	TOTAL RESIDENTIAL ft²	RETAIL m²	RETAIL ft²	RETAIL SERVICE m²	RETAIL SERVICE ft²	TOTAL RETAIL m²	TOTAL RETAIL ft²	TOTAL GFA (TFA - EXCLUSIONS) m²	TOTAL GFA (TFA - EXCLUSIONS) ft²
BLDG BUILDIN G 1	U/G 1				61.5	662	61.5	662							61.5	662
	Floor 1	10	585.3	6,300	774.3	8,335	1,359.6	14,635	548.5	5,904	77.5	834	626.0	6,738	1,985.6	21,373
	MEZZANINE		596.9	6,425	112.7	1,213	709.6	7,639							709.6	7,639
	Floor 2	45	3,133.8	33,732	472.2	5,083	3,606.1	38,815							3,606.1	38,815
	Floor 3	48	3,308.1	35,608	454.1	4,888	3,762.2	40,496							3,762.2	40,496
	Floor 4	48	3,308.1	35,608	454.1	4,888	3,762.2	40,496							3,762.2	40,496
	Floor 5	48	3,226.7	34,732	456.7	4,915	3,683.3	39,647							3,683.3	39,647
	Floor 6	48	3,226.7	34,732	456.7	4,915	3,683.3	39,647							3,683.3	39,647
	Floor 7	45	2,514.6	27,067	398.3	4,288	2,912.9	31,354							2,912.9	31,354
	Floor 8	45	2,514.6	27,067	398.3	4,288	2,912.9	31,354							2,912.9	31,354
	Floor 9	45	2,514.6	27,067	398.3	4,288	2,912.9	31,354							2,912.9	31,354
	Floor 10	22	1,165.0	12,540	135.5	1,459	1,300.5	13,999							1,300.5	13,999
	Floor 11	29	1,554.4	16,732	129.4	1,393	1,683.8	18,124							1,683.8	18,124
	Floor 12	29	1,554.4	16,732	129.4	1,393	1,683.8	18,124							1,683.8	18,124
	Floor 13	25	1,383.3	14,889	114.2	1,229	1,497.5	16,119							1,497.5	16,119
	Floor 14	25	1,383.3	14,889	114.2	1,229	1,497.5	16,119							1,497.5	16,119
	Floor 15	25	1,383.3	14,889	114.2	1,229	1,497.5	16,119							1,497.5	16,119
	Floor 16	25	1,383.3	14,889	114.2	1,229	1,497.5	16,119							1,497.5	16,119
	Floor 17	25	1,383.3	14,889	114.2	1,229	1,497.5	16,119							1,497.5	16,119
	Floor 18	25	1,383.3	14,889	114.2	1,229	1,497.5	16,119							1,497.5	16,119
	TOTAL	**612**	**37,502.714**	**403,676.023**	**5,516.740**	**59,381.718**	**43,019.453**	**463,057.741**	**548.539**	**5,904.425**	**77.481**	**833.994**	**626.019**	**6,738.419**	**43,645.473**	**469,796.161**
	TOTAL (ROUNDED)	**612**	**37,502.7**	**403,676**	**5,516.7**	**59,382**	**43,019.5**	**463,058**	**548.5**	**5,904**	**77.5**	**834**	**626.0**	**6,738**	**43,645.5**	**469,796**

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AMENITY AREA BREAKDOWN

FLOOR	OUTDOOR AMENITY m²	OUTDOOR AMENITY ft²	INDOOR AMENITY m²	INDOOR AMENITY ft²
U/G 1				
Floor 1	956.3	10,293	990.4	10,660
MEZZANINE				
Floor 2				
Floor 3				
Floor 4				
Floor 5				
Floor 6				
Floor 7				
Floor 8				
Floor 9				
Floor 10	1,258.4	13,545	398.7	4,292
Floor 11				
Floor 12				
Floor 13				
Floor 14				
Floor 15				
Floor 16				
Floor 17				
Floor 18				
TOTAL	**2,214.657**	**23,838.378**	**1,389.123**	**14,952.399**
TOTAL (ROUNDED)	**2,214.7**	**23,838**	**1,389.1**	**14,952**

TOTAL FLOOR AREA BREAKDOWN

FLOOR	AREA EXCLUSIONS m²	AREA EXCLUSIONS ft²	TOTAL FLOOR AREA (GFA+INDOOR AMENITY+EXCL.) m²	TOTAL FLOOR AREA (GFA+INDOOR AMENITY+EXCL.) ft²
U/G 1	10,763.9	115,861	10,825.4	116,523
Floor 1	764.6	8,230	3,740.6	40,264
MEZZANINE	562.9	6,059	1,272.6	13,698
Floor 2	89.7	965	3,695.7	39,781
Floor 3	90.4	973	3,852.6	41,469
Floor 4	90.4	973	3,852.6	41,469
Floor 5	89.7	965	3,773.0	40,612
Floor 6	89.7	965	3,773.0	40,612
Floor 7	90.1	970	3,003.0	32,324
Floor 8	90.1	970	3,003.0	32,324
Floor 9	90.1	970	3,003.0	32,324
Floor 10	84.3	907	1,783.6	19,198
Floor 11	84.5	909	1,768.3	19,034
Floor 12	84.5	909	1,768.3	19,034
Floor 13	84.5	909	1,581.9	17,028
Floor 14	84.5	909	1,581.9	17,028
Floor 15	84.5	909	1,581.9	17,028
Floor 16	84.5	909	1,581.9	17,028
Floor 17	84.5	909	1,581.9	17,028
Floor 18	84.5	909	1,581.9	17,028
TOTAL	**13,571.626**	**146,083.833**	**58,606.222**	**630,832.393**
TOTAL (ROUNDED)	**13,571.6**	**146,084**	**58,606.2**	**630,832**

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GROSS FLOOR AREA BREAKDOWN

BLDG	FLOOR	# OF UNITS	RESIDENTIAL SALEABLE m²	RESIDENTIAL SALEABLE ft²	TOTAL GFA (TFA - EXCLUSIONS) m²	TOTAL GFA (TFA - EXCLUSIONS) ft²
BLDG BUILDIN G 2	Floor 1	30	1,364.3	14,686	1,364.3	14,686
	MEZZANINE		1,363.6	14,678	1,363.6	14,678
	Floor 2		1,069.2	11,509	1,069.2	11,509
	TOTAL	**30**	**3,797.160**	**40,872.312**	**3,797.160**	**40,872.312**
	TOTAL (ROUNDED)	**30**	**3,797.2**	**40,872**	**3,797.2**	**40,872**

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AMENITY AREA BREAKDOWN

OUTDOOR AMENITY m²	OUTDOOR AMENITY ft²	INDOOR AMENITY m²	INDOOR AMENITY ft²

AMENITY AREAS REQUIRED & PROVIDED

BLDG	TYPE	REQUIRED RATIO	REQUIRED m²	REQUIRED ft²	PROVIDED RATIO	PROVIDED m²	PROVIDED ft²
BLDG BUILDING 1 +BUILDING 2	INDOOR AMENITY				2.16 m²/UNIT	1,389.1	14,952
	OUTDOOR AMENITY				3.44 m²/UNIT	2,214.7	23,838
	TOTAL AMENITY	**5.60 m²/UNIT**	**3,595.2**	**38,698**	**5.61 m²/UNIT**	**3,603.8**	**38,791**

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AMENITY AREAS - REQUIRED

* AS PER CITY OF MISSISSAUGA BY-LAW NUMBER 0225-2007 THE MINIMUM REQUIRED AMENITY IS EQUAL TO THE GREATER OF 5.6M2 PER DWELLING UNIT OR 10% OF THE NET SITE AREA. OF THIS, A MINIMUM OF 50% IS REQUIRED TO BE CONTIGUOUS

	TYPE	RATIO	m2	ft2	MINIMUM 50% CONTIGUOUS AREA m2	MINIMUM 50% CONTIGUOUS AREA ft2
AMENITY AREA (INDOOR AND OUTDOOR)	REQUIRED	@ 5.6 m2 / UNIT	3,595	38,699	1,798	19,349
	PROVIDED	5.61 m²/UNIT	3,603.8	38,791		
	CONTIGUOUS AREA		1,947	20,954		

VEHICULAR PARKING - REQUIRED

***Vehicular parking required as per CGH Transportation Inc.report*

	USE	RATIO (MIN.)	UNITS/AREA	SPACES (MIN.)
TH	VISITOR	0.10 / UNIT	30	3
	RESIDENT	0.75 / UNIT	30	23
18 STOREY BUILDING	VISITOR	0.10 / UNIT	612	62
	RESIDENT	0.75 / UNIT	612	459
	TOTAL RESIDENTIAL REQUIRED			**547**
	RETAIL	1.0/100 sq. m	626.0	6

VEHICULAR PARKING - PROVIDED

	FLOOR	USE RESIDENTIAL	USE VISITOR	USE RETAIL	TOTAL
	FLOOR 1		6	6	12
	U/G LEVEL 1	260	59		319
	TOTAL PROVIDED	**260**	**65**	**6**	**331**
	RATIO	**0.40 / UNIT**			**0.52 / UNIT**

* 20% OF RESIDENTIAL SPACES FOR A TOTAL OF 52 TO BE EV READY SPACES
* 10% OF VISITOR/RETAIL SPACES FOR TOTAL OF 7 TO BE EV READY SPACES

BIKE PARKING - REQUIRED

	USE	RATIO (MIN.)	UNITS/AREA	SPACES (MIN.)
	VISITOR	0.05 / UNIT	642	32
	RESIDENT	0.60 / UNIT	642	385
	TOTAL RESIDENTIAL REQUIRED			**417**

BIKE PARKING - PROVIDED

	FLOOR	RESIDENTIAL LONG TERM	RESIDENTIAL SHORT TERM	RESIDENTIAL SUBTOTAL	RETAIL LONG TERM	RETAIL SHORT TERM	RETAIL SUBTOTAL	TOTAL
	MEZZANINE	392		392				392
	FLOOR 1 INTERIOR							
	FLOOR 1 EXTERIOR		32	32				32
	TOTAL PROVIDED	**392**	**32**	**424**				**424**

TURNER FLEISCHER

Turner Fleischer Architects Inc.

67 Lesmill Road
Toronto, ON, M3B 2T8
T 416 425 2222
turnerfleischer.com

#	DATE	DESCRIPTION	BY
1	July 08, 2022	OPA,ZBA & SPA Submission	

PROJECT
PROPOSED RESIDENTIAL MIXED-USE DEVELOPMENT
1225 Dundas Street E, Mississauga, ON

DRAWING
STATISTICS

PROJECT NO. 22.117P01
PROJECT DATE
DRAWN BY WJB
CHECKED BY NMC
SCALE As indicated

DRAWING NO. SPA002
REV. 1

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UNIT MIX

BLDG	FLOOR	SALEABLE							AVG. UNIT SIZE	
		1B	1B+D	2B	2B+D	3B	TH	TOTAL	m²	ft²
BLDG BUILDIN G 1	Floor 1						10	10	118.2	1,273
	Floor 2	2	19	16	5	3		45	69.6	750
	Floor 3		21	20	4	3		48	68.9	742
	Floor 4		21	20	4	3		48	68.9	742
	Floor 5		21	24	2	1		48	67.2	724
	Floor 6		21	24	2	1		48	67.2	724
	Floor 7	6	32	4	1	2		45	55.9	601
	Floor 8	6	32	4	1	2		45	55.9	601
	Floor 9	6	32	4	1	2		45	55.9	601
	Floor 10	6	12	4				22	53.0	570
	Floor 11	9	14	5	1			29	53.6	577
	Floor 12	9	14	5	1			29	53.6	577
	Floor 13	6	13	5	1			25	55.3	596
	Floor 14	6	13	5	1			25	55.3	596
	Floor 15	6	13	5	1			25	55.3	596
	Floor 16	6	13	5	1			25	55.3	596
	Floor 17	6	13	5	1			25	55.3	596
	Floor 18	6	13	5	1			25	55.3	596
	SUBTOTAL	80	317	160	28	17	10	612	61.3	660
	TOTAL UNITS	**397**		**188**		**17**	**10**	**612**		
	UNIT MIX	13.1%	51.8%	26.1%	4.6%	2.8%	1.6%	100.0%		
	UNIT MIX TOTAL	64.9%		30.7%		2.8%	1.6%	100.0%		
	AVG UNIT SIZE (m²)	42.8	55.3	72.0	85.1	86.6	118.2	61.3		
	AVG UNIT SIZE (ft²)	460	595	775	916	932	1,273	660		
	AVG UNIT SIZE TOTAL (m²)	52.8		73.9		86.6	118.2	61.3		
	AVG UNIT SIZE TOTAL (ft²)	568		796		932	1,273	660		

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UNIT MIX

BLDG	FLOOR	SALEABLE		AVG. UNIT SIZE	
		TH	TOTAL	m²	ft²
BLDG BUILDIN G 2	Floor 1	30	30	126.6	1,362
	SUBTOTAL	30	30	**126.6**	**1,362**
	TOTAL UNITS	**30**	**30**		
	UNIT MIX	100.0%	100.0%		
	UNIT MIX TOTAL	100.0%	100.0%		
	AVG UNIT SIZE (m²)	126.6	126.6		
	AVG UNIT SIZE (ft²)	1,362	1,362		
	AVG UNIT SIZE TOTAL (m²)	126.6	126.6		
	AVG UNIT SIZE TOTAL (ft²)	1,362	1,362		

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UNIT MIX

BLDG	FLOOR	SALEABLE							AVG. UNIT SIZE	
		1B	1B+D	2B	2B+D	3B	TH	TOTAL	m²	ft²
BLDG BUILDIN G 1 +BUILDIN G 2	Floor 1						40	40	124.5	1,340
	Floor 2	2	19	16	5	3		45	69.6	750
	Floor 3		21	20	4	3		48	68.9	742
	Floor 4		21	20	4	3		48	68.9	742
	Floor 5		21	24	2	1		48	67.2	724
	Floor 6		21	24	2	1		48	67.2	724
	Floor 7	6	32	4	1	2		45	55.9	601
	Floor 8	6	32	4	1	2		45	55.9	601
	Floor 9	6	32	4	1	2		45	55.9	601
	Floor 10	6	12	4				22	53.0	570
	Floor 11	9	14	5	1			29	53.6	577
	Floor 12	9	14	5	1			29	53.6	577
	Floor 13	6	13	5	1			25	55.3	596
	Floor 14	6	13	5	1			25	55.3	596
	Floor 15	6	13	5	1			25	55.3	596
	Floor 16	6	13	5	1			25	55.3	596
	Floor 17	6	13	5	1			25	55.3	596
	Floor 18	6	13	5	1			25	55.3	596
	SUBTOTAL	80	317	160	28	17	40	642	**64.3**	**692**
	TOTAL UNITS	**397**		**188**		**17**	**40**	**642**		
	UNIT MIX	12.5%	49.4%	24.9%	4.4%	2.6%	6.2%	100.0%		
	UNIT MIX TOTAL	61.8%		29.3%		2.6%	6.2%	100.0%		
	AVG UNIT SIZE (m²)	42.8	55.3	72.0	85.1	86.6	124.5	64.3		
	AVG UNIT SIZE (ft²)	460	595	775	916	932	1,340	692		
	AVG UNIT SIZE TOTAL (m²)	52.8		73.9		86.6	124.5	64.3		
	AVG UNIT SIZE TOTAL (ft²)	568		796		932	1,340	692		

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TURNER
FLEISCHER

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turnerfleischer.com

#	DATE	DESCRIPTION	BY

PROJECT

PROPOSED RESIDENTIAL MIXED-USE DEVELOPMENT

1225 Dundas Street E, Mississauga, ON

DRAWING

STATISTICS

PROJECT NO.
22.117P01

PROJECT DATE

DRAWN BY
MLE

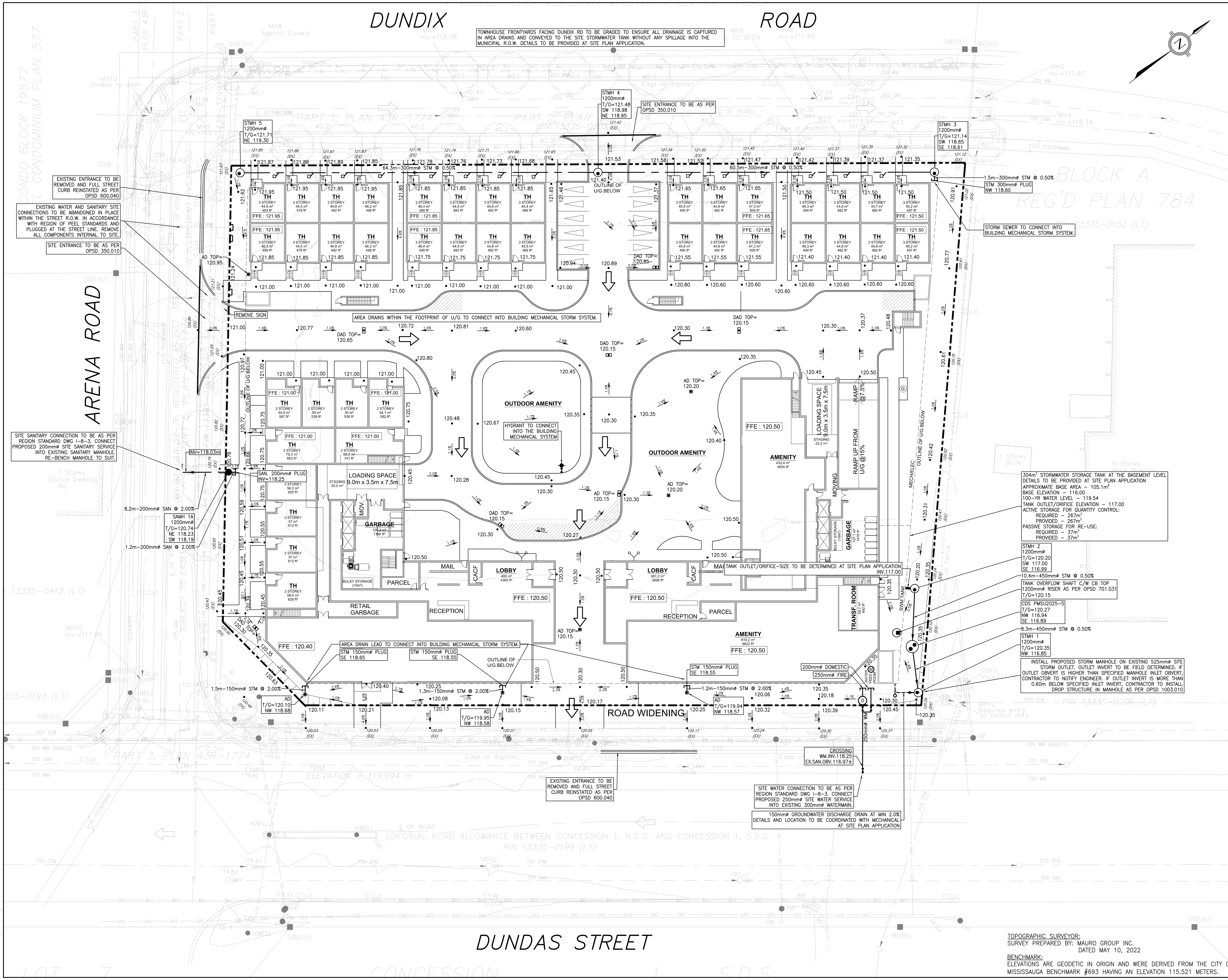
CHECKED BY
NMC

SCALE
1 : 1

DRAWING NO.
SPA003

REV.

2024-07-23 5:06:10 PM



TOPOGRAPHIC SURVEYOR:
SURVEY PREPARED BY: MAURO GROUP INC.
DATED MAY 10, 2022

BENCHMARK:
ELEVATIONS ARE GEODETIC IN ORIGIN AND WERE DERIVED FROM THE CITY OF MISSISSAUGA BENCHMARK #693 HAVING AN ELEVATION 115.521 METERS.

Stantec

300 - 675 Cochrane Drive West Tower
Markham, Ontario L3R 0B8
Tel. 905.944.7777
www.stantec.com

Legend

120.00	PROPOSED ELEVATION		CONCRETE CURB
120.30 (EX)	EXISTING ELEVATIONS		DROPPED CURB
	OVERLAND FLOW		PROPERTY BOUNDARY
	EXISTING OVERLAND FLOW		WATERMAIN
	SANITARY MANHOLE		STORM SEWER
	STORM MANHOLE		SANITARY SEWER
	CATCH BASIN		
	DOUBLE CATCH BASIN		
	CATCH BASIN MANHOLE		
	AREA DRAIN		
	DOUBLE AREA DRAIN		
	VALVE AND VALVE BOX		
	HYDRANT AND VALVE		

Issued	By	Appd.	YY.MM.DD
ISSUED FOR ZBA/OPA	PF	AL	24.08.02
ISSUED FOR ZBA/OPA/SPA	PF	AL	22.07.08

File Name:	Dwn.	Chkd.	Dsgn.	YY.MM.DD
	PF	BC	PF	22.07.08

Permit-Seal

Client/Project

DUNDIX REALTY HOLDINGS
c/o SmartCentres REIT.

PROPOSED RESIDENTIAL DEVELOPMENT
1225 DUNDAS ST E
Mississauga, Ontario

Title

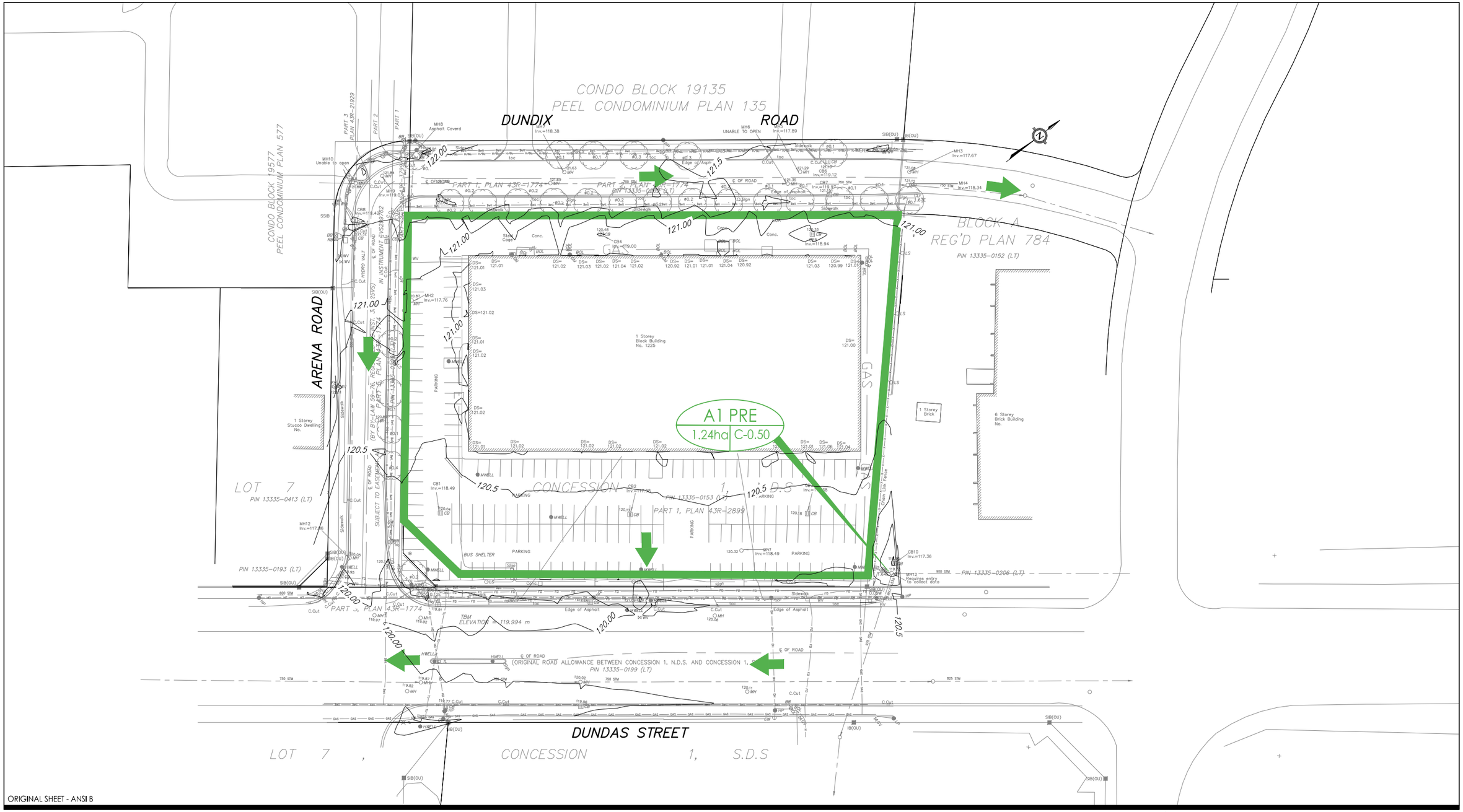
GRADING AND SERVICING PLAN

Project No.	Scale
160623078	1:300 (0, 3, 9, 15m)

Drawing No.	Sheet	Revision
C-101	of	

ORIGINAL SHEET - ARCH D

Appendix B STORM



ORIGINAL SHEET - ANSI B

Legend

Notes

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Markham, Ontario L3R 0B8
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Project

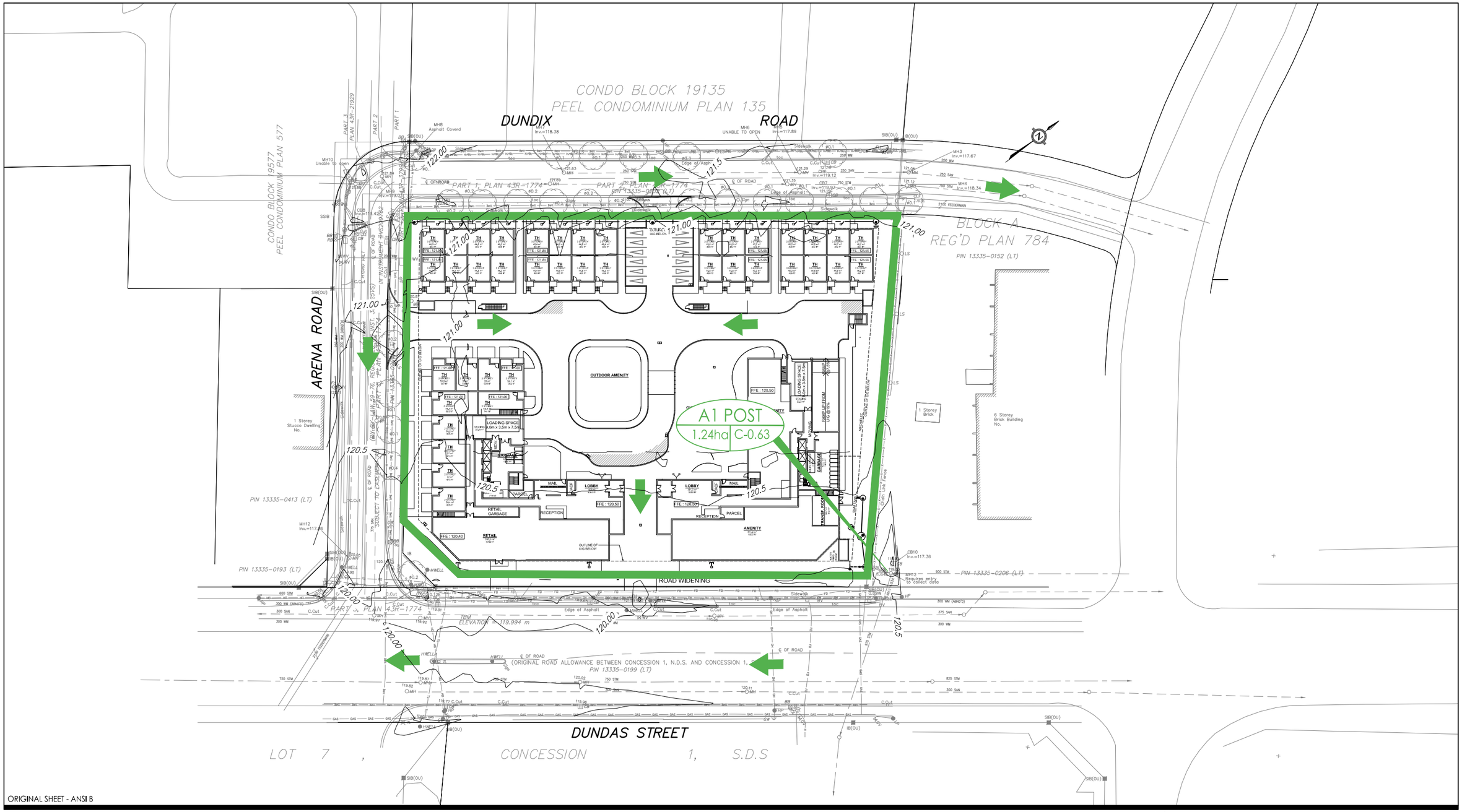
Proposed Residential Development
1225 Dundas St E

Figure No.

2.1

Title

PRE-DEVELOPMENT STORM DRAINAGE PLAN



ORIGINAL SHEET - ANSI B

Legend

Notes

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Markham, Ontario L3R 0B8
www.stantec.com

Project

Proposed Residential Development
1225 Dundas St E

Figure No.

2.2

Title

POST-DEVELOPMENT STORM DRAINAGE PLAN

floor slab and/or near the foundation and the groundwater would passively drain into these sub drains and discharge directly to sumps. Due to the nature of overburden material, the groundwater will flow through the natural gradient that exists on the site and passively flow into the foundation sub-drains and will not be actively pumped.

Based on the Copper-Jacob equation, the ROI is approximately 85 m, calculation details are provided in Appendix F.

5.2.3 Long-Term Perimeter Drain Flow Rate Estimate

The Dupuit-Forcheimer equation for radial flow from an unconfined aquifer for a fully penetrating excavation was used to obtain a flow rate estimate, and is expressed as follows:

$$Q_w = \frac{\pi K(H^2 - h^2)}{In(\frac{R_0}{r_e})}$$

Based on the assumptions provided in this report (outlined in Section 5.1 and 5.2), the results of the long-term discharge volume estimate are summarized below and detailed calculations are provided in Appendix F:

Location	Long-Term Peak Flow Rate (L/day)	Notes
Flow into sub-drain after initial dewatering stages	14,100	Long term sub-drain flow value rounded based on Dupuit-Forcheimer's equation. A Safety factor of 2 was used.

The maximum flow rate estimates represent short term events and are not indicative of long-term continuous contributions to the drainage system. Intermittent cycling of sump pumps and seasonal fluctuation in groundwater regimes should be considered for pump specifications. Given that the predicted dewatering volume does not exceed the 50,000 L/day limit, a PTTW is not required.

It should be noted that the dewatering estimates provided in this report are based on the proposed building information available at this time.

If the groundwater encountered during long-term dewatering is discharged to the City of Mississauga and/or Region of Peel Sanitary and Combined sewer, no treatment will likely be required; however, discharge directed to the City of Mississauga and/or Region of Peel Storm Sewers will likely require treatment.

In the event that the long-term foundation drainage is not allowed to discharge into the City's sewer system, the proposed building may be designed and supported by "tanked" water-proofed continuous raft foundation without permanent dewatering (i.e., avoiding permanent perimeter and under-floor drainage system).

Project Name - 1225 Dundas St E
Project Number - 160623078
Date - Jul-24

COMPOSITE RUNOFF COEFFICIENT CALCULATION SHEET

Surface Type	Runoff Coefficient (C)
Roof	0.90
Pavement	0.90
Landscape	0.25
Green Roof	0.50

Drainage Area	Roof (Ha)	Pavement (Ha)	Landscape (Ha)	Green Roof (Ha)	Total (Ha)	**Composite C**
A1 POST	0.52	0.21	0.51	0.00	1.24	0.63

Note: Areas obtained from Site Statistics in Appendix A

Project Name - 1225 Dundas St E
Project Number - 160623078
Date - Jul-24

Stantec

PRE-DEVELOPMENT FLOWS

Drainage Area	Area (Ha)	Runoff Coefficient (C)	Time of Concentration (Tc) (min)
A1 PRE	1.24	0.50	15

Storm Event	a	b	c	I (mm/hr)	**Target Flow (L/s)**
Two Year	610	4.6	0.78	59.9	**103.1**
Five Year	820	4.6	0.78	80.5	**138.7**
Hundred Year	1450	4.9	0.78	140.7	**242.3**

Project Name - **1225 Dundas St E**
Project Number - 160623078
Date - Jul-24

100 YEAR FLOWS

TARGET RELEASE RATE -	**103.1**	L/s
RELEASE RATE -	**100.2**	L/s

A1 POST

Area (Ha) - 1.24
C - 0.79 <======Adjustment factor of 1.25 applied Unadjusted C- 0.63
Control Type - Underground Storage
Tc (min) - 15
Available Active Storage (m^3) - 267 Tank Base Area (m^2)- 105.1
Release Rate (L/s) - 100 Active Stortage Base Elevation (m)- 117.00
Required Storage (m3) - 267 Headwater elevation in the tank (m)- 119.54

Uncontrolled Groundwater Discharge

Area (Ha) - N/A
C - N/A
Control Type - Uncontrolled
Tc (min) - N/A
Max. Release Rate (L/s) - 0.2

Time (Min)	I (mm/hr)	Runoff Volume (m^3)	Released Volume (m^3)	Stored Volume (m^3)	Time Min)	I (mm/hr)	Release Rate (L/s)
15	140.7	343	90	253	N/A	N/A	N/A
20	118.1	384	120	264	N/A	N/A	N/A
25	102.4	417	150	267	N/A	N/A	N/A
30	90.8	443	180	263	N/A	N/A	N/A
35	81.8	466	210	256	N/A	N/A	N/A
40	74.6	486	240	246	N/A	N/A	N/A
45	68.7	503	270	233	N/A	N/A	N/A
50	63.8	519	300	219	N/A	N/A	N/A
55	59.6	533	330	203	N/A	N/A	N/A
60	56.0	546	360	186	N/A	N/A	N/A
65	52.8	559	390	169	N/A	N/A	N/A
70	50.0	570	420	150	N/A	N/A	N/A
75	47.6	581	450	131	N/A	N/A	N/A
80	45.4	591	480	111	N/A	N/A	N/A
85	43.4	600	510	90	N/A	N/A	N/A
90	41.6	609	540	69	N/A	N/A	N/A
95	40.0	618	570	48	N/A	N/A	N/A
100	38.5	626	600	26	N/A	N/A	N/A
105	37.1	634	630	4	N/A	N/A	N/A
110	35.8	642	660	0	N/A	N/A	N/A
115	34.7	649	690	0	N/A	N/A	N/A
120	33.6	656	720	0	N/A	N/A	N/A
125	32.6	662	750	0	N/A	N/A	N/A
130	31.6	669	780	0	N/A	N/A	N/A
135	30.7	675	810	0	N/A	N/A	N/A
140	29.9	681	840	0	N/A	N/A	N/A
145	29.1	687	870	0	N/A	N/A	N/A
150	28.4	693	900	0	N/A	N/A	N/A
155	27.7	699	930	0	N/A	N/A	N/A
160	27.0	704	960	0	N/A	N/A	N/A
165	26.4	709	990	0	N/A	N/A	N/A
170	25.8	714	1020	0	N/A	N/A	N/A

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION
BASED ON THE RATIONAL RAINFALL METHOD
BASED ON A FINE PARTICLE SIZE DISTRIBUTION

Project Name:	1225 Dundas St E	**Engineer:**	**Stantec**
Location:	Mississauga, ON	**Contact:**	P. Fatahi, CET
OGS #:	1	**Report Date:**	14-Jun-22

Area	1.32	ha	**Rainfall Station #**	204	
Impervious	95	%	**Particle Size Distribution**	FINE	
CDS Model	2025		**CDS Treatment Capacity**	45	l/s

Rainfall Intensity[1] (mm/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (l/s)	Treated Flowrate (l/s)	Operating Rate (%)	Removal Efficiency (%)	Incremental Removal (%)
0.5	9.4%	9.4%	1.6	1.6	3.5	97.9	9.2
1.0	11.0%	20.4%	3.2	3.2	7.0	96.9	10.6
1.5	10.1%	30.5%	4.7	4.7	10.4	95.9	9.7
2.0	9.6%	40.1%	6.3	6.3	13.9	94.9	9.1
2.5	7.9%	48.0%	7.9	7.9	17.4	93.9	7.5
3.0	6.4%	54.4%	9.5	9.5	20.9	92.9	5.9
3.5	4.4%	58.8%	11.0	11.0	24.4	91.9	4.0
4.0	4.2%	63.0%	12.6	12.6	27.9	90.9	3.8
4.5	3.7%	66.7%	14.2	14.2	31.3	89.9	3.3
5.0	3.3%	70.0%	15.8	15.8	34.8	88.9	2.9
6.0	5.6%	75.6%	18.9	18.9	41.8	86.9	4.8
7.0	4.0%	79.6%	22.1	22.1	48.8	84.9	3.4
8.0	3.5%	83.1%	25.2	25.2	55.7	82.9	2.9
9.0	2.2%	85.3%	28.4	28.4	62.7	80.9	1.8
10.0	1.7%	87.0%	31.6	31.6	69.6	78.9	1.3
15.0	6.3%	93.3%	47.3	45.3	100.0	67.2	4.2
20.0	2.3%	95.6%	63.1	45.3	100.0	50.4	1.1
25.0	1.8%	97.3%	78.9	45.3	100.0	40.3	0.7
30.0	0.8%	98.2%	94.7	45.3	100.0	33.6	0.3
35.0	0.9%	99.0%	110.5	45.3	100.0	28.8	0.2
40.0	0.3%	99.3%	126.2	45.3	100.0	25.2	0.1
45.0	0.5%	99.8%	142.0	45.3	100.0	22.4	0.1
50.0	0.2%	100.0%	157.8	45.3	100.0	20.2	0.0
							87.2

Removal Efficiency Adjustment[2] = 6.5%

Predicted Net Annual Load Removal Efficiency = 80.7%

Predicted % Annual Rainfall Treated = 96.7%

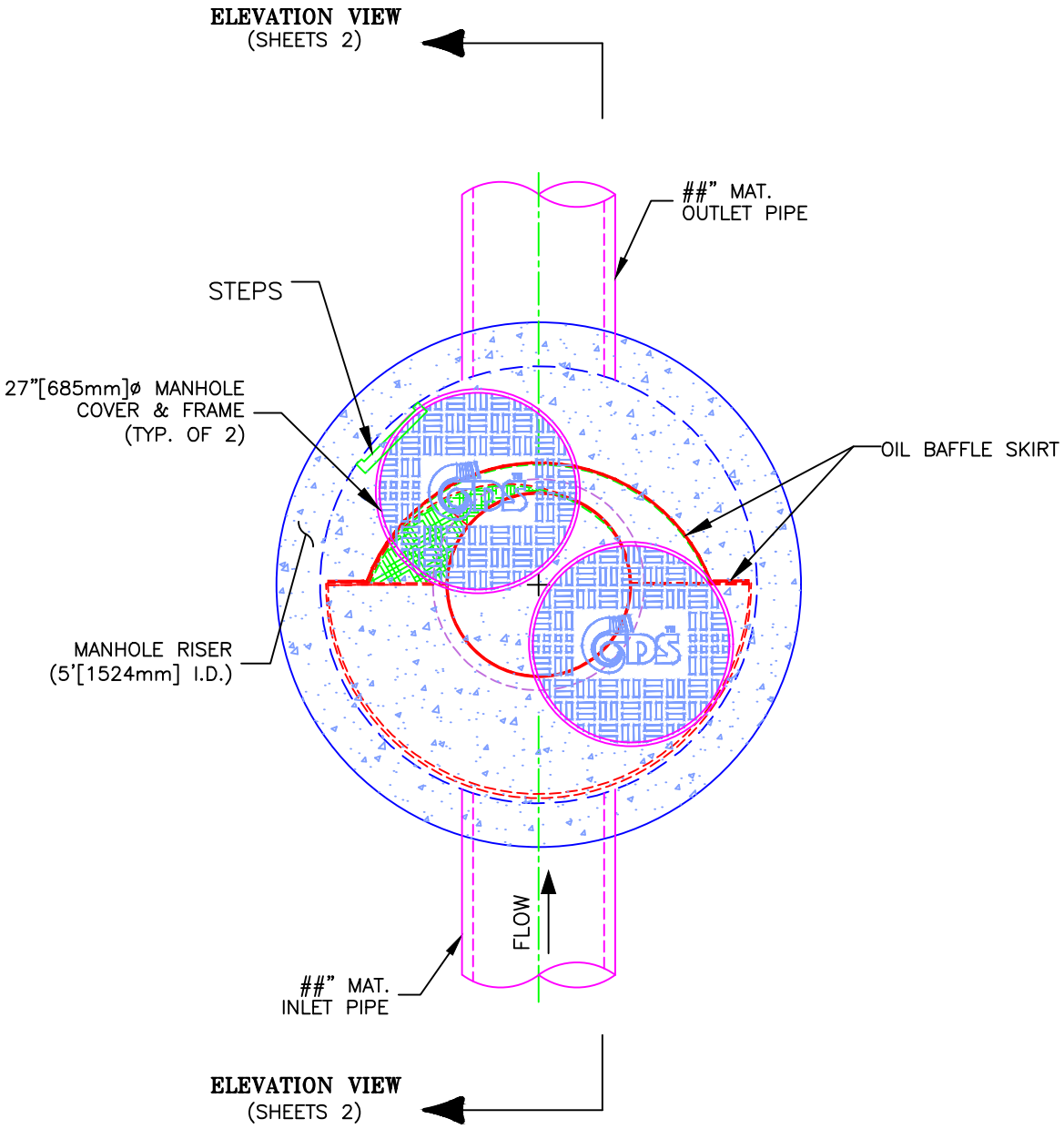
1 - Based on 44 years of hourly rainfall data from Canadian Station 6158733, Toronto ON (Airport)

2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

3 - CDS Efficiency based on testing conducted at the University of Central Florida

4 - CDS design flowrate and scaling based on standard manufacturer model & product specifications

PLAN VIEW

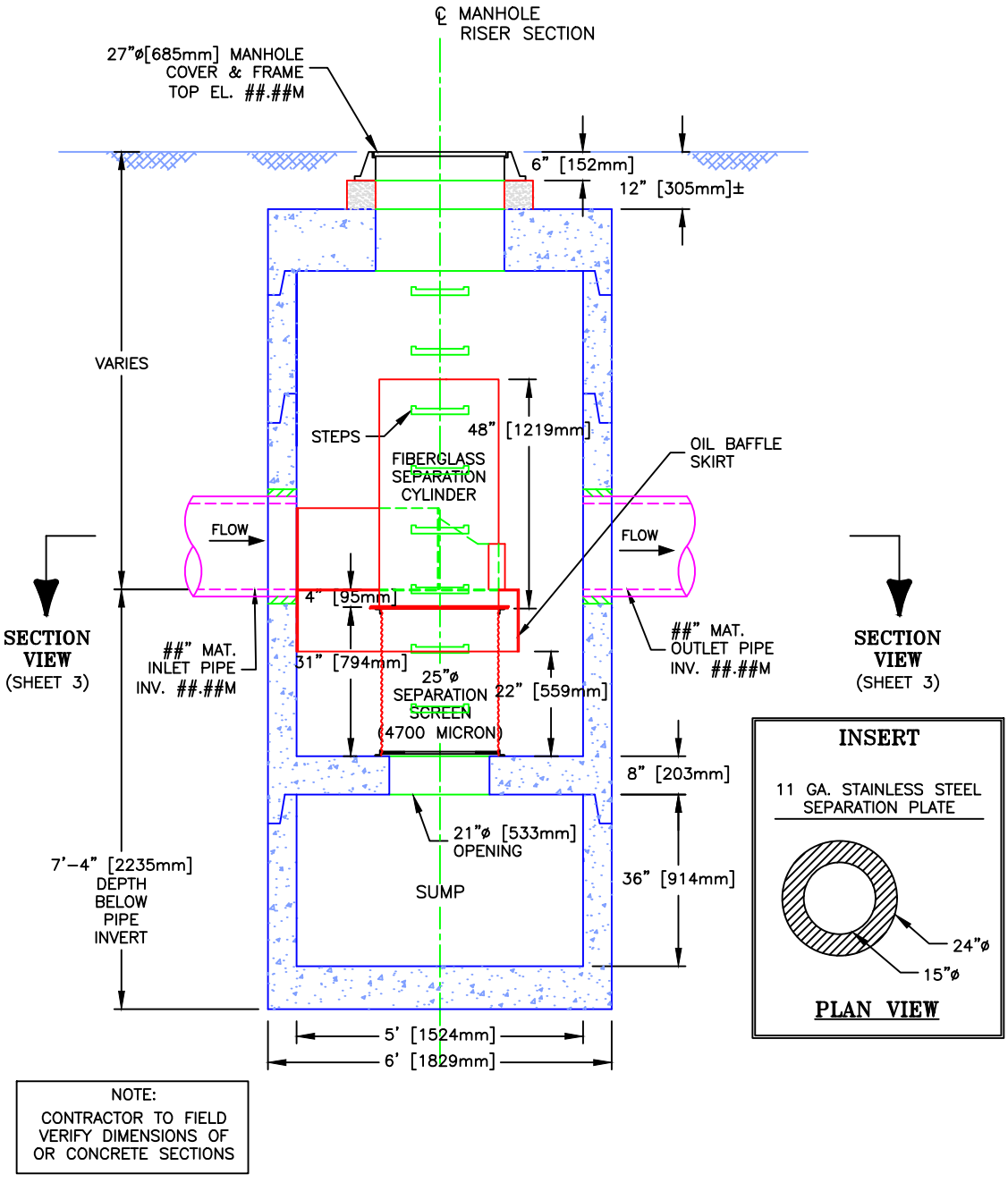


CDS MODEL PMSU20_25m, 1.6 CFS TREATMENT CAPACITY STORM WATER TREATMENT UNIT

CONTECH STORMWATER SOLUTIONS	PROJECT NAME CITY, PROVINCE	JOB# XX-##-###	SCALE 1" = 2'
		DATE ##/##/##	SHEET 1
		DRAWN INITIALS	
		APPROV.	

Echelon Environmental 505 Hood Road, Unit 26, Markham, Ontario L3R 5V6 Tel: (905) 948-0000 Fax: (905) 905-0577
CONTECH Stormwater Solutions Inc. 930 Woodcock Road, Suite 101, Orlando, Florida 32803 Tel: (800) 848-9955

ELEVATION VIEW



CDS MODEL PMSU20_25m, 1.6 CFS TREATMENT CAPACITY STORM WATER TREATMENT UNIT

CONTECH STORMWATER SOLUTIONS	PROJECT NAME CITY, PROVINCE	JOB# XX-##-###	SCALE 1" = 3'
		DATE ##/##/##	SHEET 2
		DRAWN INITIALS	
		APPROV.	

Echelon Environmental 505 Hood Road, Unit 26, Markham, Ontario L3R 5V6 Tel: (905) 948-0000 Fax: (905) 948-0577
CONTECH Stormwater Solutions Inc. 930 Woodcock Road, Suite 101, Orlando, Florida 32803 Tel: (800) 848-9955

Appendix C SANITARY

Project Name - 1225 Dundas St E
Project Number - 160623078
Date - July-24

Stantec

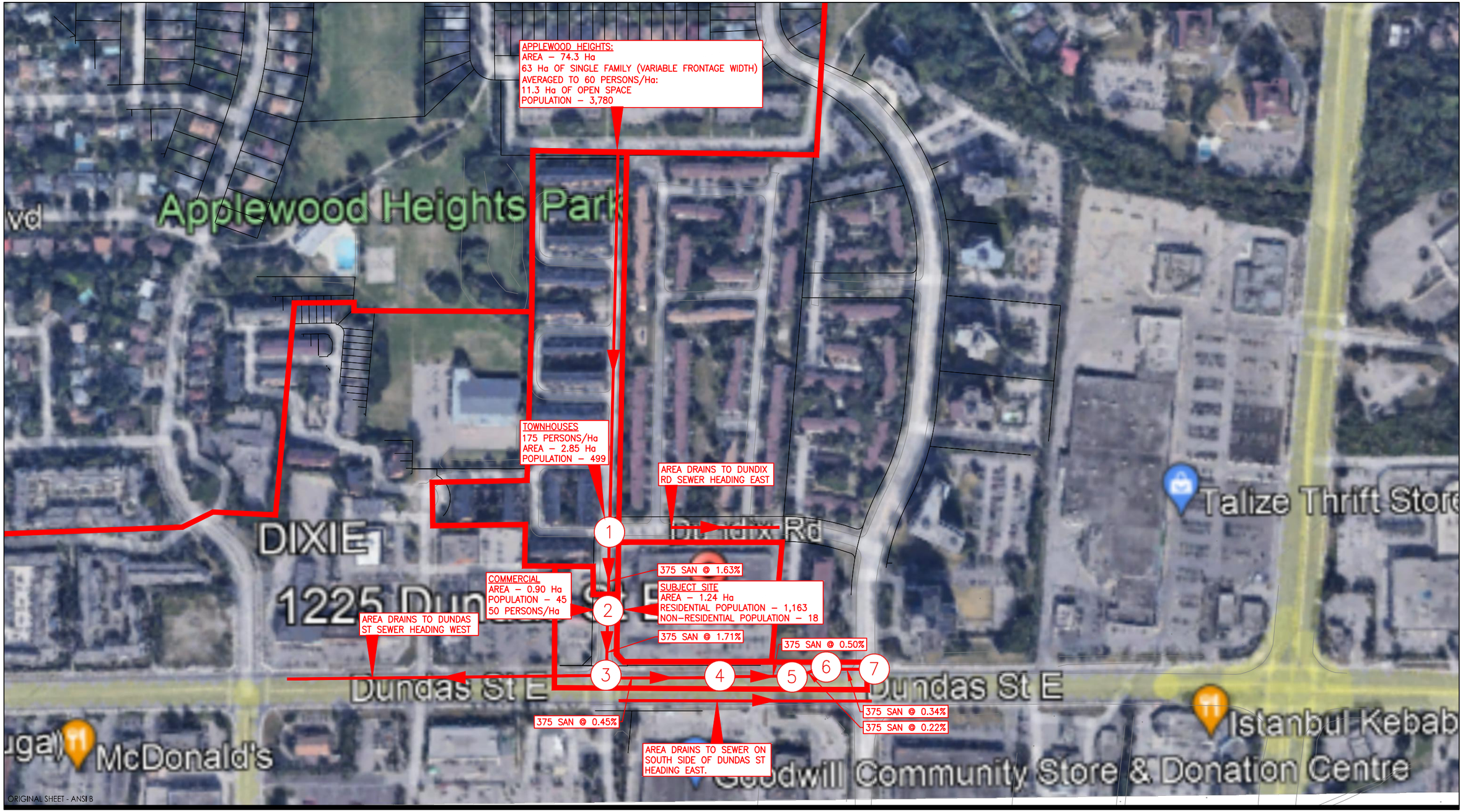
PEAK SANITARY FLOWS CALCULATION SHEET				
Criteria Used:	**Region of Peel 2020 Development Charges Background Study**			
Function	Population	Units	Flow	Units
Residential - Townhouse	3.4	PPU	290	L/Capita/Day
Residential - Large Apartment (>750 ft^2)	3.0	PPU	290	L/Capita/Day
Residential - Small Apartment (=<750 ft^2)	1.6	PPU	290	L/Capita/Day
Non-Residential	1.0	Per 36 m^2 of GFA	270	L/Capita/Day
Extraneous	-	-	0.26	L/s/Ha

Site Area	1.24	Ha

Average Dry Weather Flow				
Function	Number of Units	GFA (m^2)	Population	Flow (L/s)
Townhouse	40	-	136	0.46
Residential - Large Apartment (>750 ft^2)	45	-	135	0.45
Residential - Small Apartment (=<750 ft^2)	557	-	892	2.99
Non-Residential	-	626	18	0.06
			Total	3.96

Harmon Peaking Factor	3.75

Total Site	14.86
Extraneous	0.32
Total Peak Flow (L/s)	**15.2**



Stantec

300 - 675 Cochrane Drive West Tower
Markham, Ontario L3R 0B8
www.stantec.com

Legend

Notes

Project

Proposed Residential Development
1225 Dundas St E

Figure No.

3.1

Title

SANITARY DRAINAGE AREA PLAN

Project Name - 1225 Dundas St E
Project Number - 160623078
Date - Jun-22

Stantec

SANITARY CALCULATION SHEET - EXISTING CONDITIONS

Criteria Used:	**Region of Peel 2020 Development Charges Background Study**				
Function	Population	Units	Flow	Units	Peaking Factor
Residential - Townhouse	3.4	PPU	290	L/Capita/Day	Harmon Peaking Factor
Residential - Large Apartment (>750 ft^2)	3.0	PPU	290	L/Capita/Day	Harmon Peaking Factor
Residential - Small Apartment (=<750 ft^2)	1.6	PPU	290	L/Capita/Day	Harmon Peaking Factor
Non-Residential	1.0	Per 36 m^2 of GFA	270	L/Capita/Day	Harmon Peaking Factor
Extraneous	-	-	0.26	L/s/Ha	-

Location				Site Area (Ha)		Residential Population*		Non-Residential Population*		Peaking Factor	Average Flow (L/s)	Peak Flow (L/s)	Infiltration (L/s)	Total Peak Flow (L/s)	Pipe Diameter (mm)	Pipe Slope (%)	Velocity (m/s)	Capacity (L/s)	% Capacity Used
Block	Area Tag	From	To	Local Area	Cumulative Area	Local Population	Cumulative Population	Local Population	Cumulative Population										
Applewood Heights + Townhouses northwest of site + Subject Site	-	Node 1	Node 2	78.47	78.47	4279	4279	66	66	3.30	14.6	48.1	20.4	68.5	375	1.63	2.03	223.8	31%
Commercial west of Arena Rd + North half of Dundas St E	-	Node 2	Node 3	0.90	79.37	0	4279	45	111	3.30	14.7	48.5	20.6	69.1	375	1.71	2.08	229.3	30%
Dundas St E	-	Node 3	Node 4	0.00	79.37	0	4279	0	111	3.30	14.7	48.5	20.6	69.1	375	0.45	1.06	117.6	59%
Dundas St E	-	Node 4	Node 5	0.00	79.37	0	4279	0	111	3.30	14.7	48.5	20.6	69.1	375	0.50	1.12	124.0	56%
Dundas St E	-	Node 5	Node 6	0.00	79.37	0	4279	0	111	3.30	14.7	48.5	20.6	69.1	375	0.22	0.74	82.2	84%
Dundas St E	-	Node 6	Node 7	0.00	79.37	0	4279	0	111	3.30	14.7	48.5	20.6	69.1	375	0.34	0.93	102.2	68%

* See Figure 3.1 in this appendix for criteria used for external populations. Existing population for subject site = 1.32 Ha x 50 persons/Ha as per region standards = 66

Project Name - 1225 Dundas St E
Project Number - 160623078
Date - Jul-24

Stantec

SANITARY CALCULATION SHEET - PROPOSED CONDITIONS

Criteria Used:	**Region of Peel 2020 Development Charges Background Study**				
Function	Population	Units	Flow	Units	Peaking Factor
Residential - Townhouse	3.4	PPU	290	L/Capita/Day	Harmon Peaking Factor
Residential - Large Apartment (>750 ft^2)	3.0	PPU	290	L/Capita/Day	Harmon Peaking Factor
Residential - Small Apartment (=<750 ft^2)	1.6	PPU	290	L/Capita/Day	Harmon Peaking Factor
Non-Residential	1.0	Per 36 m^2 of GFA	270	L/Capita/Day	Harmon Peaking Factor
Extraneous	-	-	0.26	L/s/Ha	-

Location				Site Area (Ha)		Residential Population*		Non-Residential Population*		Peaking Factor	Average Flow (L/s)	Peak Flow (L/s)	Infiltration (L/s)	Foundation Discharge (L/s)		Total Peak Flow (L/s)	Pipe Diameter (mm)	Pipe Slope (%)	Velocity (m/s)	Capacity (L/s)	% Capacity Used
Block	Area Tag	From	To	Local Area	Cumulative Area	Local Population	Cumulative Population	Local Population	Cumulative Population					Local	Cumulative						
Applewood Heights + Townhouses northwest of site	-	Node 1	Node 2	77.15	77.15	4279	4279	0	0	3.31	14.4	47.5	20.1	0.0	0.0	67.6	375	1.63	2.03	223.8	30%
Subject Site + Commercial west of Arena Rd + North half of Dundas St E	-	Node 2	Node 3	2.14	79.29	1163	5442	63	63	3.21	18.5	59.2	20.6	0.0	0.0	79.8	375	1.71	2.08	229.3	35%
Dundas St E	-	Node 3	Node 4	0.00	79.29	0	5442	0	63	3.21	18.5	59.2	20.6	0.0	0.0	79.8	375	0.45	1.06	117.6	68%
Dundas St E	-	Node 4	Node 5	0.00	79.29	0	5442	0	63	3.21	18.5	59.2	20.6	0.0	0.0	79.8	375	0.50	1.12	124.0	64%
Dundas St E	-	Node 5	Node 6	0.00	79.29	0	5442	0	63	3.21	18.5	59.2	20.6	0.0	0.0	79.8	375	0.22	0.74	82.2	97%
Dundas St E	-	Node 6	Node 7	0.00	79.29	0	5442	0	63	3.21	18.5	59.2	20.6	0.0	0.0	79.8	375	0.34	0.93	102.2	78%

* See Figure 3.1 in this appendix for criteria used for external populations. See Table 1-1: Site Development Statistics in Section 1.2 of the report for criteria used for determining population for subject site

Appendix D WATER

Project Name - 1225 Dundas St E
Project Number - 160623078
Date - Jul-24

Stantec

DOMESTIC WATER DEMAND CALCULATION

CRITERIA SUMMARY

Criteria Used:	**Region of Peel 2020 Development Charges Background Study**					
Function	Population	Units	Flow	Units	Max Day Factor	Peak Hour Factor
Residential - Townhouse	3.4	PPU	270	L/Capita/Day	1.8	3.0
Residential - Large Apartment (>750 ft^2)	3.0	PPU	270	L/Capita/Day	1.8	3.0
Residential - Small Apartment (=<750 ft^2)	1.6	PPU	270	L/Capita/Day	1.8	3.0
Non-Residential	1.0	Per 36 m^2 of GFA	250	L/Capita/Day	1.4	3.0

Function	Number of Units	GFA (m2)	Population	Average Day (L/d)	Max Day (L/d)	Peak Hour (L/hr)	**Peak Domestic Flow (L/s)**
Townhouse	40	-	136	36720.0	66096.0	4590.0	1.3
Residential - Large Apartment (>750 ft^2)	45	-	135	36450.0	65610.0	4556.3	1.3
Residential - Small Apartment (=<750 ft^2)	557	-	892	240840.0	433512.0	30105.0	8.4
Non-Residential	-	626	18	4500.0	6300.0	562.5	0.2
						Total	**11.1**

FIRE FLOW DEMAND CALCULATION

Assumptions:

Type of Construction- Fire Resistive
Protection Rating- One Hour Rating
Occupancy Type- Limited Combustible
Sprinkler Protection- NFPA 13
E- Distance to closest structure on the east side (m)
S- Distance to closest structure on the south side (m)
W- Distance to closest structure on the west side (m)
N- Distance to closest structure on the north side (m)

Location	C	Largest Floor Area (m^2)	Above Floor Area (m^2)	Below Floor Area (m^2)	F1 (L/min)	Occupancy Factor	F2 (L/min)
Site	0.6	5162	5162	5162	11615	-15%	9873

Sprinkler Protection Factor	F2 (L/min)	E	S	W	N	Exposure Factor	F (L/min)
-30%	6911	3	44	28	24	50%	11000

F (L/s)	**F (USGPM)**
183.3	**2906**

Peak Domestic Flow + Fire Demand (L/s)	**194.4**

521 Piercey Road, Unit 6
Bolton, ON, L7E 5B5

T: 905.951.1877 F: 905.951.1878
E: office@vtfireprotection.com

HYDRANT FLOW TEST REPORT

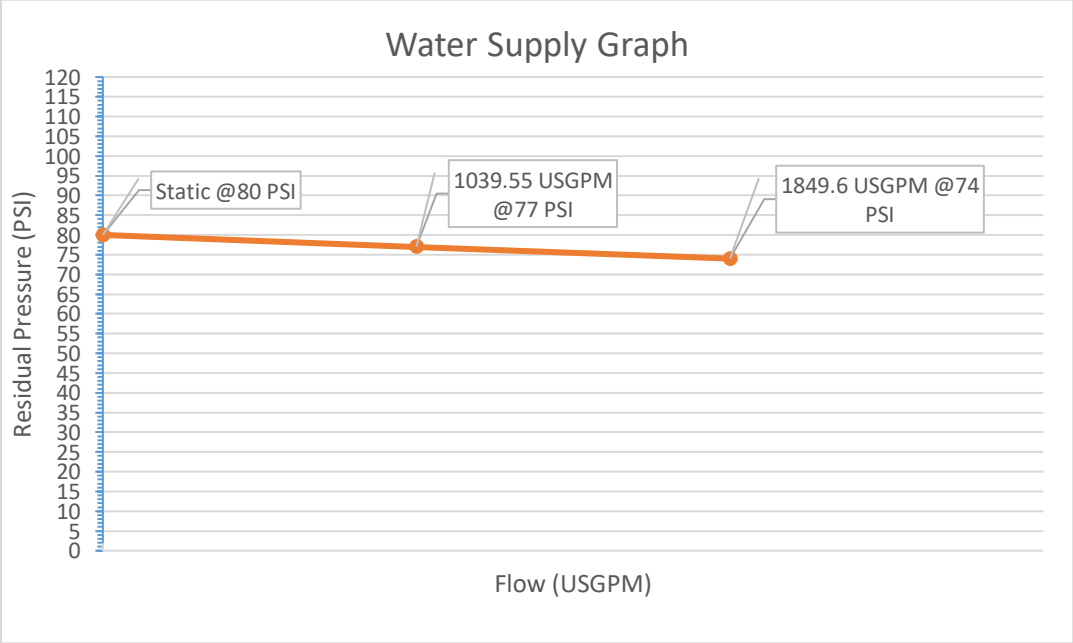
SITE INFORMATION

Test Location:	Dundas St. East / Blundell, Mississauga	Underground W/M Size:	12” (300 mm)
Date of Test:	June 15, 2022	Pipe Material:	PVC
Time of Test:	11:00 am		
Flow Hydrant ID:	1225 Dundas St. East	Flow Hyd. Co-Efficient:	0.85
Res. Hydrant ID:	1214 Dundas St. East (@ Arena Rd.)	Static Reading:	80 PSI

FIELD DATA

Test No.	Outlet Size (inches)	Pitot Reading (PSI)	Flow Adjustment (USGPM)	Total Flow (USGPM)	Residual (PSI)	Field Notes (if applicable)
1	1 – 1¾”	-	-	-	-	-
2	1 – 2½”	43	1,223	1,039.55	77	-
3	2 – 2½”	34, 34	2,176	1,849.60	74	-
4	-	-	-	-	-	-

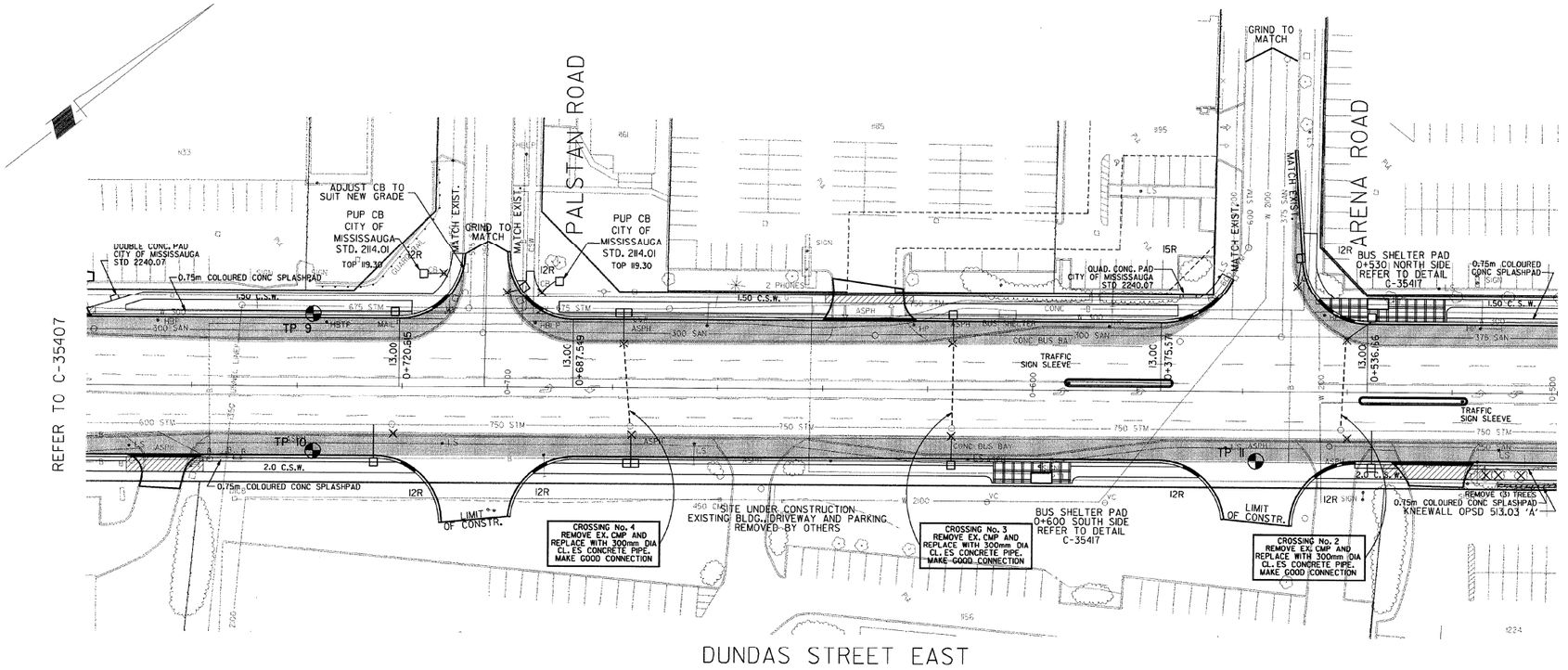
WATER SUPPLY GRAPH



ADDITIONAL COMMENTS

- All readings are true at the time of actual hydrant test.
- 1¾” playpipe was not conducted due to the site condition/unsafe (traffic)

Appendix E BACKGROUND MATERIALS



SERVICE DATA

SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN. SEWERS	97 II	B.G.M.	GAS MAINS	97 II	B.G.M.
STM. SEWERS	97 II	B.G.M.	BELL U/G CABLE	97 II	B.G.M.
WATERMAINS	97 II	B.G.M.	HYDRO U/G CABLE	97 II	B.G.M.
O.C.W.A.	97 II	B.G.M.			

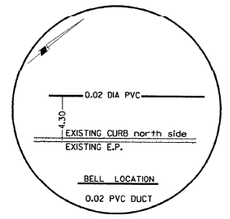
REVISIONS

DATE	DETAILS	INIT.

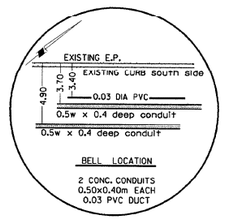
LEGEND

FULL DEPTH EXCAVATION REQUIRED

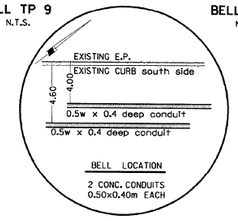
180mm DEPTH CONCRETE SIDEWALK



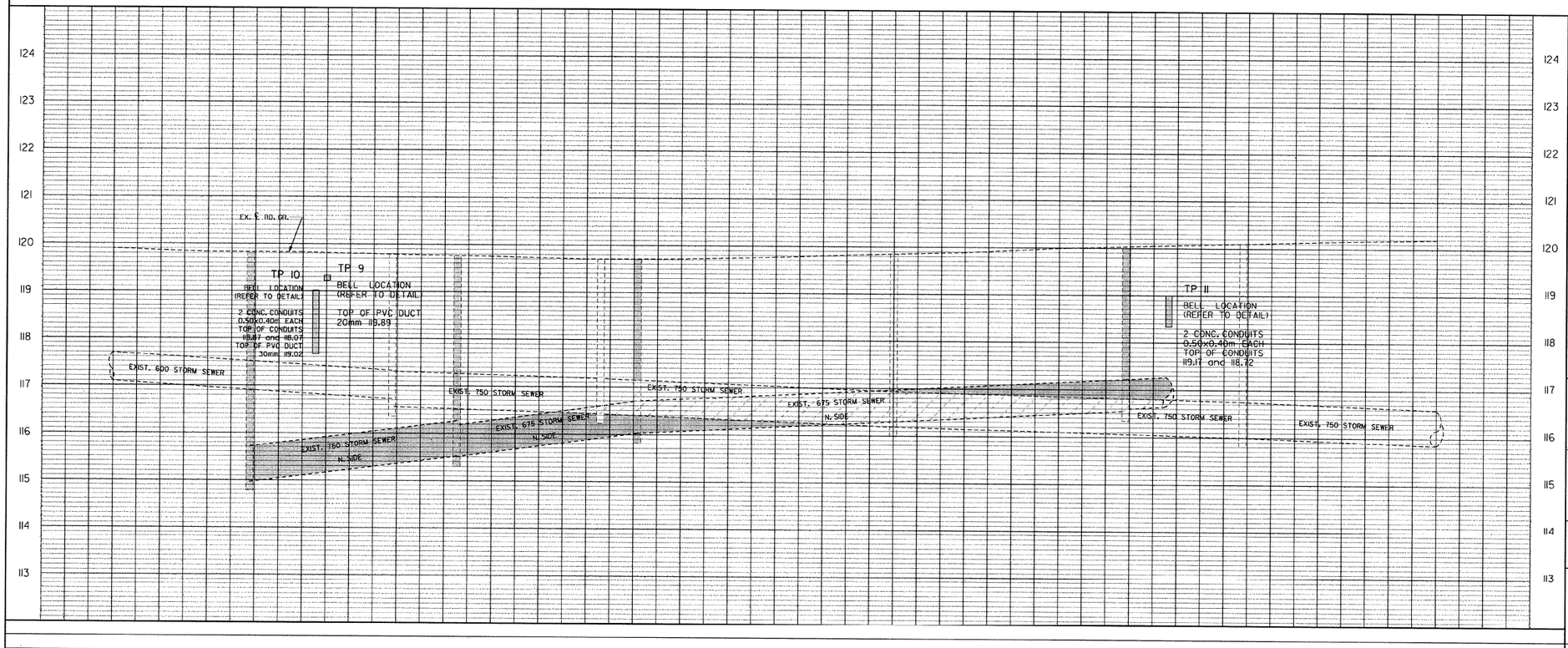
BELL TP 9
N.T.S.



BELL TP 10
N.T.S.



BELL TP 11
N.T.S.



119.900	119.830	119.830	119.790	119.760	119.710	119.720	119.770	119.840	119.890	119.990	120.050	120.100	120.160	120.200	EX. ℄ RD. GR.
0+780	0+760	0+740	0+720	0+700	0+680	0+660	0+640	0+620	0+600	0+580	0+560	0+540	0+520	0+500	CHAINAGE

DESIGN BY
DOMENIC GALATI C.E.T.

APPROVED BY
REGISTERED PROFESSIONAL ENGINEER D. MARCHESE PROVINCE OF ONTARIO
MAY 12/99

DEPARTMENTAL APPROVAL
W. SCOTT ANDERSON P. ENG.

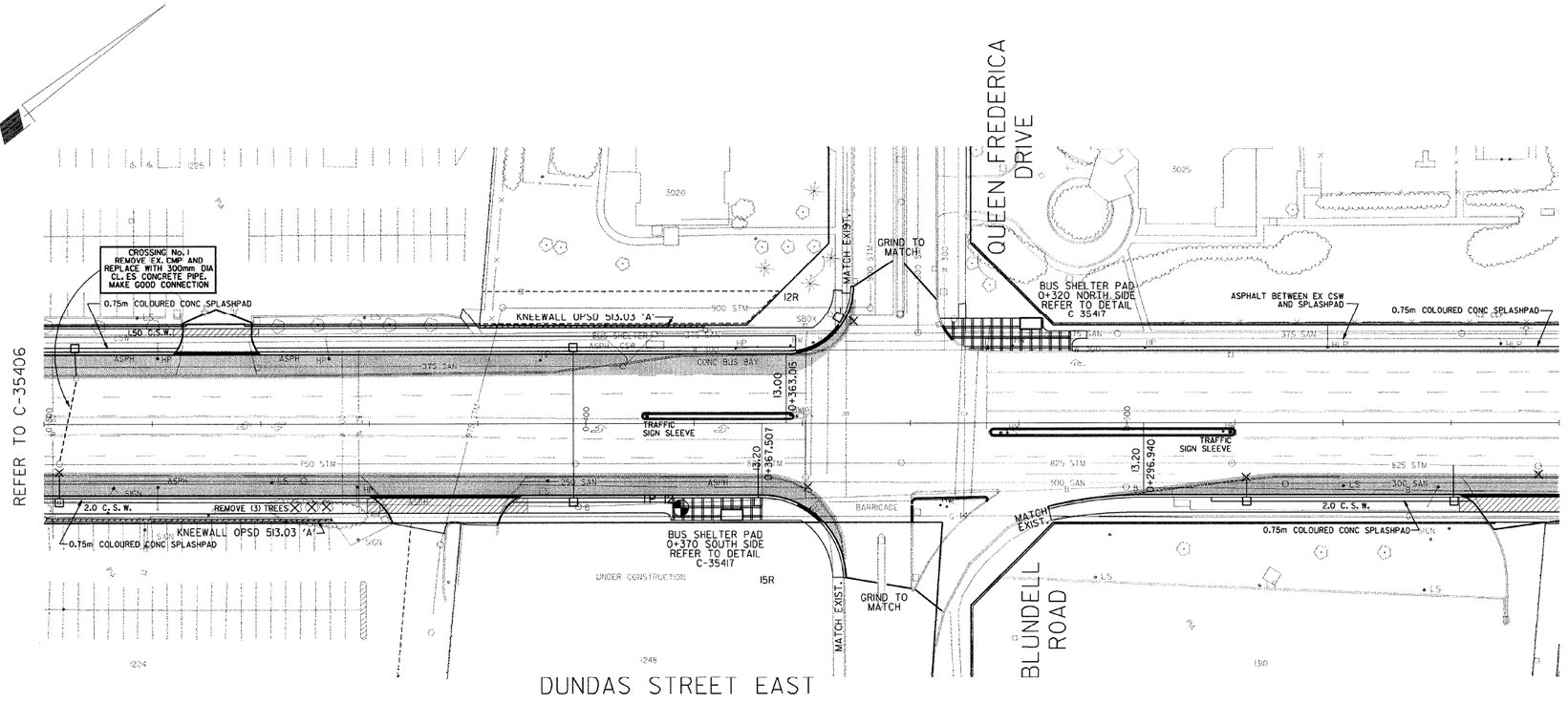
MISSISSAUGA Transportation and Works

DUNDAS STREET EAST

DIXIE ROAD TO CAWTHRA ROAD

STN. 0+500 TO STN. 0+780

SCALE HOR. 1:500 VERT. 1:50	AREA 2-13, 2-20		PROJECT No. 99-105
C.A.D.D. BY B.G.M.	CHECKED BY		PLAN No. C-35406
DATE 99 01	SHEET 3 OF 10		



SERVICE DATA

SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN. SEWERS	97 11	B.G.M.	GAS MAINS	97 11	B.G.M.
STM. SEWERS	97 11	B.G.M.	BELL U/G CABLE	97 11	B.G.M.
WATERMAINS	97 11	B.G.M.	HYDRO U/G CABLE	97 11	B.G.M.
O.C.W.A.	97 11	B.G.M.			

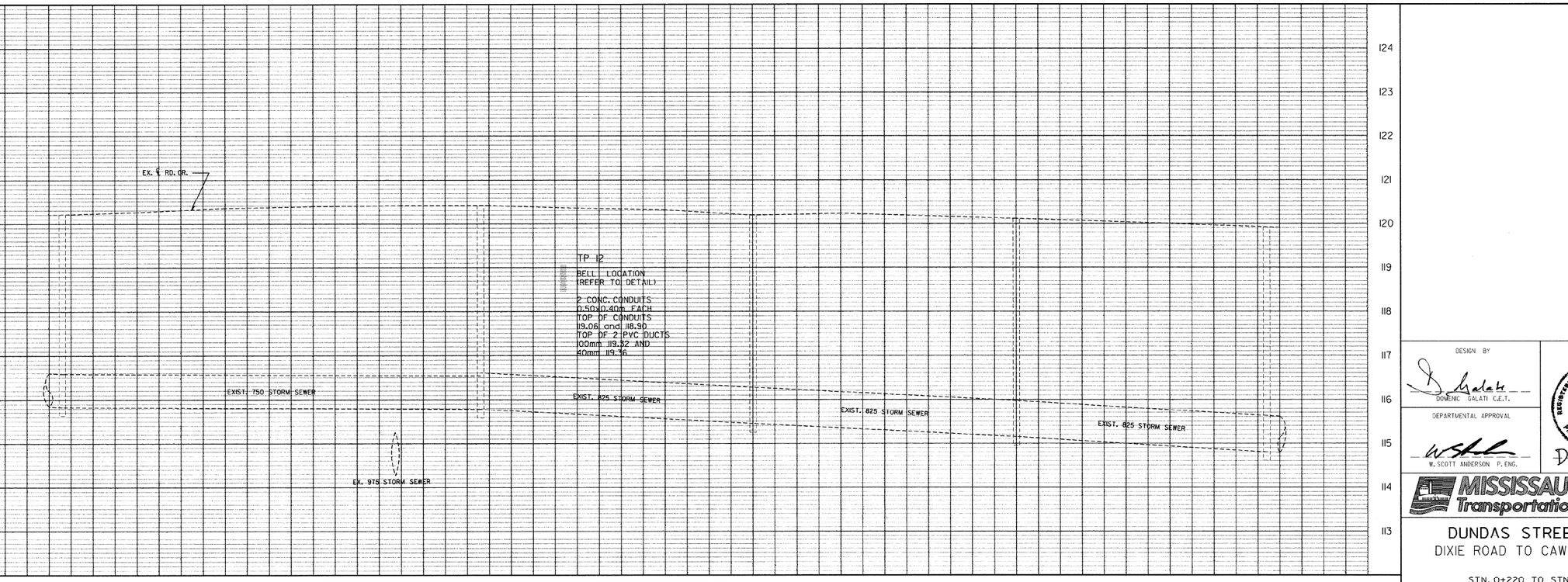
REVISIONS

DATE	DETAILS	INIT.

LEGEND

FULL DEPTH EXCAVATION REQUIRED

180mm DEPTH CONCRETE SIDEWALK



DESIGN BY
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MAY 12/99

DEPARTMENTAL APPROVAL
W. SCOTT ANDERSON P. ENG.

MISSISSAUGA Transportation and Works

DUNDAS STREET EAST
DIXIE ROAD TO CAWTHRA ROAD

STN. 0+220 TO STN. 0+500

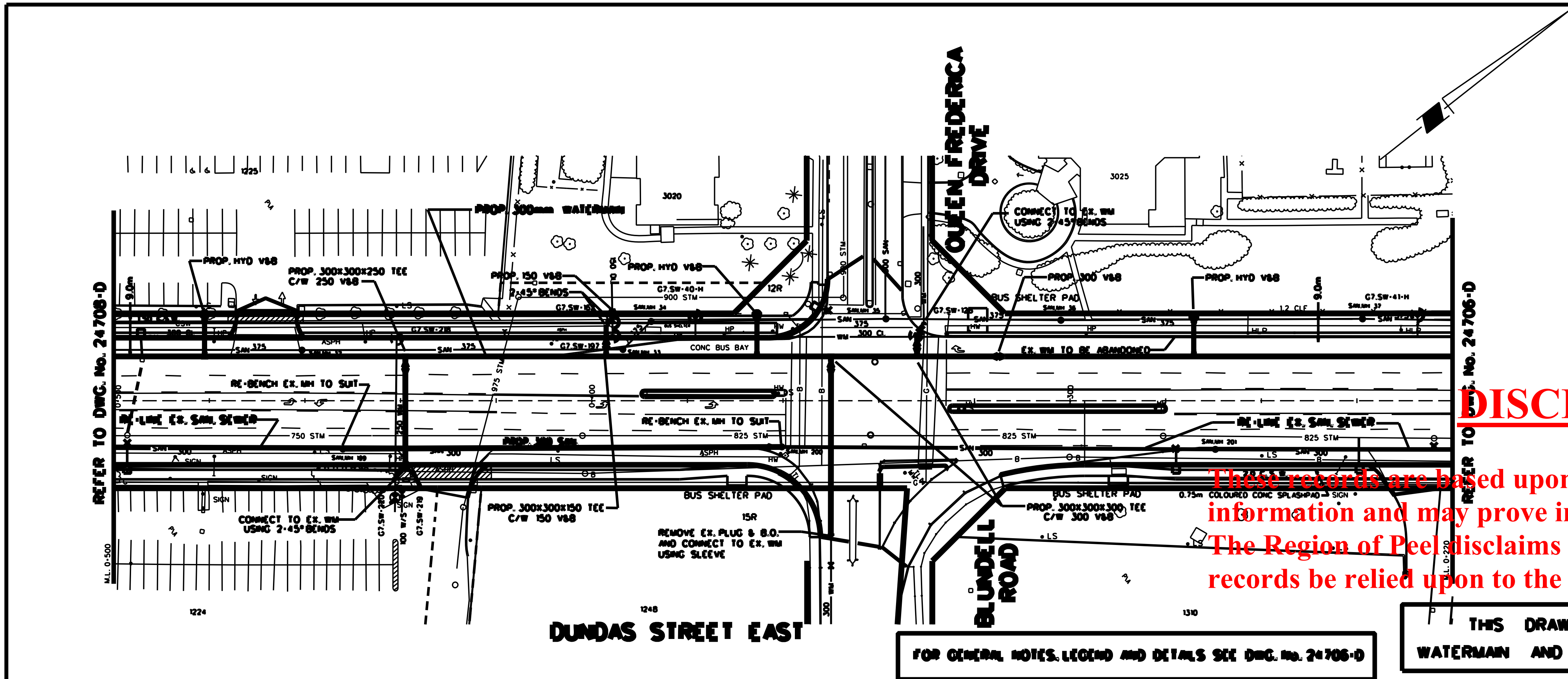
SCALE HOR. 1:500 VERT. 1:50	AREA Z-13, Z-20	PROJECT No. 99-105
C.A.D.D. BY B.G.M.	CHECKED BY	PLAN No. C-35405
DATE 99 01	SHEET 2 OF 10	

SERVICE DATA

SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN. SEWERS			GAS MAINS		
STM. SEWERS			BELL U/G CABLE		
WATERMAINS			HYDRO U/G CABLE		
O.C.W.A.					

REVISIONS

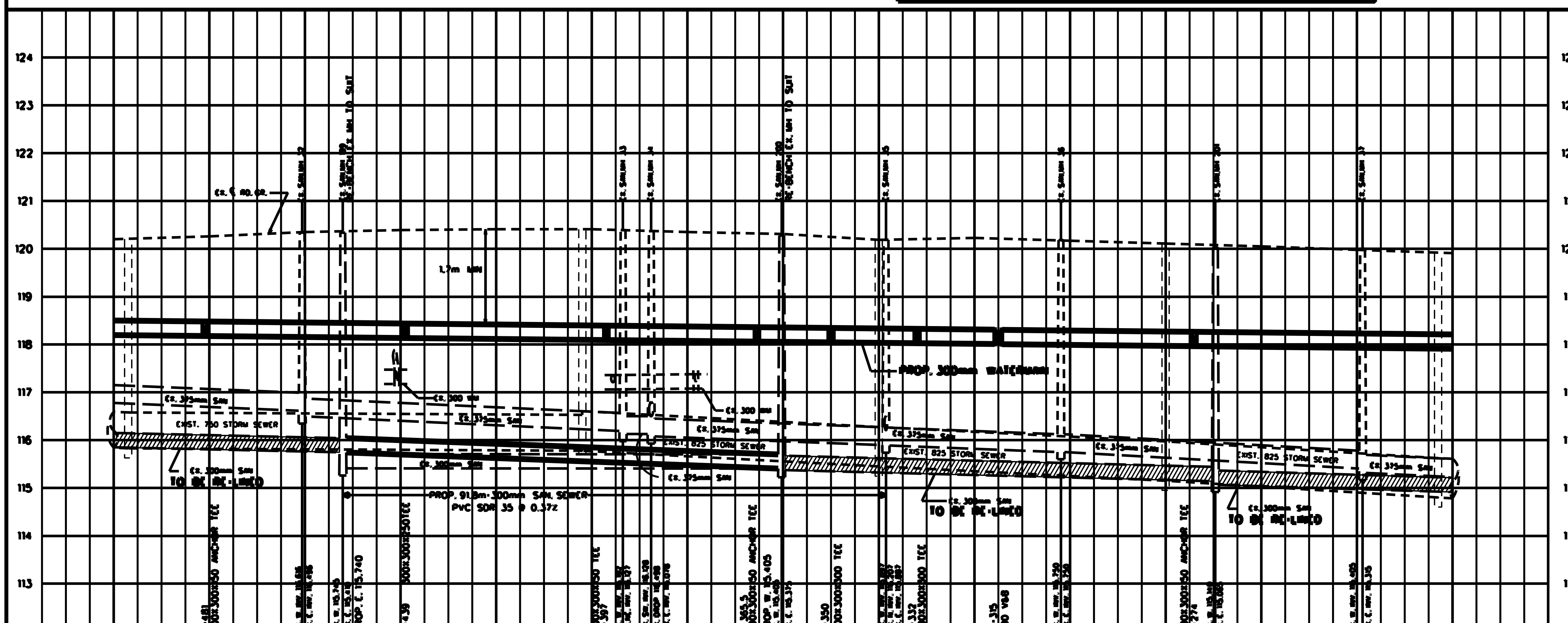
DATE	DETAILS	INIT.
DEC. 1999	AS CONSTRUCTED	J.P.



DISCLAIMER

These records are based upon available and unverified information and may prove inaccurate.
The Region of Peel disclaims any responsibility should these records be relied upon to the detriment of any person.

THIS DRAWING TO BE USED FOR WATERMAIN AND SAN. SEWER CONSTRUCTION ONLY



BOT. EL. OF WM.	118.20	118.20	118.20	118.15	118.15	118.10	118.05	118.05	118.00	118.00	118.00	118.00	117.95	117.95	117.90
C/L GRADE	120.200	120.260	120.350	120.390	120.410	120.410	120.350	120.310	120.200	120.230	120.170	120.110	120.050	119.980	119.910
CHAINAGE	0+500	0+480	0+460	0+440	0+420	0+400	0+380	0+360	0+340	0+320	0+300	0+280	0+260	0+240	0+220

General Notes

- ALL DRIVEWAYS ASPHALT UNLESS OTHERWISE NOTED.
- ALL SERVICE LOCATIONS ARE APPROXIMATE AND MUST BE LOCATED ACCURATELY IN THE FIELD
- DENOTES BUILDING - NOT LOCATED
- DENOTES BUILDING LOCATED
- TYPE 'B' BEDDING UNLESS OTHERWISE NOTED (SAN)

B.M. NO. ELEV.

THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES PRIOR TO AND DURING CONSTRUCTION LOCATION OF EXISTING UTILITIES APPROXIMATE ONLY. TO BE VERIFIED IN FIELD BY CONTRACTOR.

DESIGNED BY ___ CHKD. ___ APPROVED BY ___

NOTICE TO CONTRACTOR

48 HOURS PRIOR TO COMMMENCING WORK NOTIFY THE FOLLOWING

THE REGIONAL MUNICIPALITY OF PEEL
CITY OF MISSISSAUGA WORKS DEPT.
CITY OF BRAMPTON WORKS DEPT.
TOWN OF CALEDON WORKS DEPT.
BELL TELEPHONE COMPANY
CONSUMERS GAS COMPANY
MINISTRY OF TRANSPORTATION
MINISTRY OF ENVIRONMENT
HYDRO ELECTRIC POWER COMM. OF ONTARIO
HYDRO ELECTRIC COMM. CITY OF MISSISSAUGA
HYDRO ELECTRIC COMM. CITY OF BRAMPTON
HYDRO ELECTRIC COMM. TOWN OF CALEDON
CABLE TELEVISION

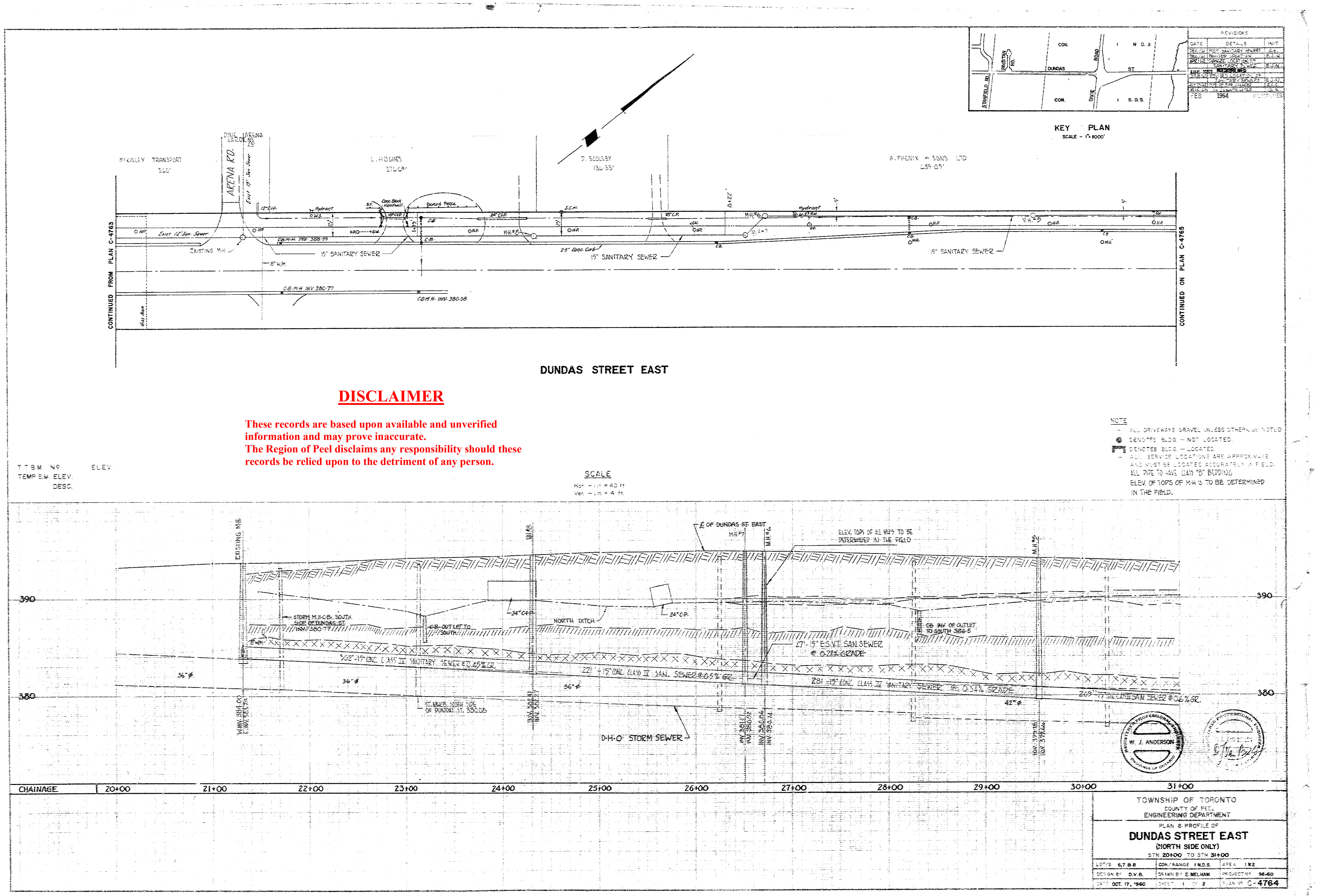
Region of Peel

Department of Public Works

DUNDAS STREET EAST
DIXIE ROAD TO CAWTHRA ROAD
PROP. 300mm WATERMAIN RE-LINING SAN. SEWER
Sta. 0+220 To Sta. 0+500

LOTS	AREA Z-13, Z-20	PROJECT NO. 99-1630 99-2360
SCALE HOR. 1:500 VER. 1:50	DRAWN BY J.P.	CHECKED BY
DATE FEBRUARY, 99	SHEET 2 OF 8	PLAN NO. 24707-D

24707_d.dgn 11/04/07 11:58:02 AM



DISCLAIMER

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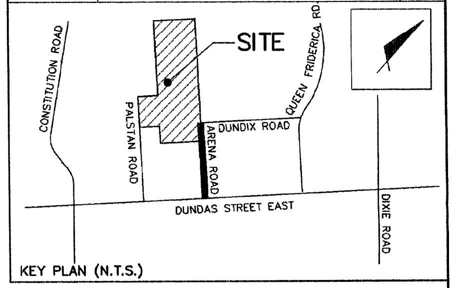
The Region of Peel disclaims any responsibility should these records be relied upon to the detriment of any person.

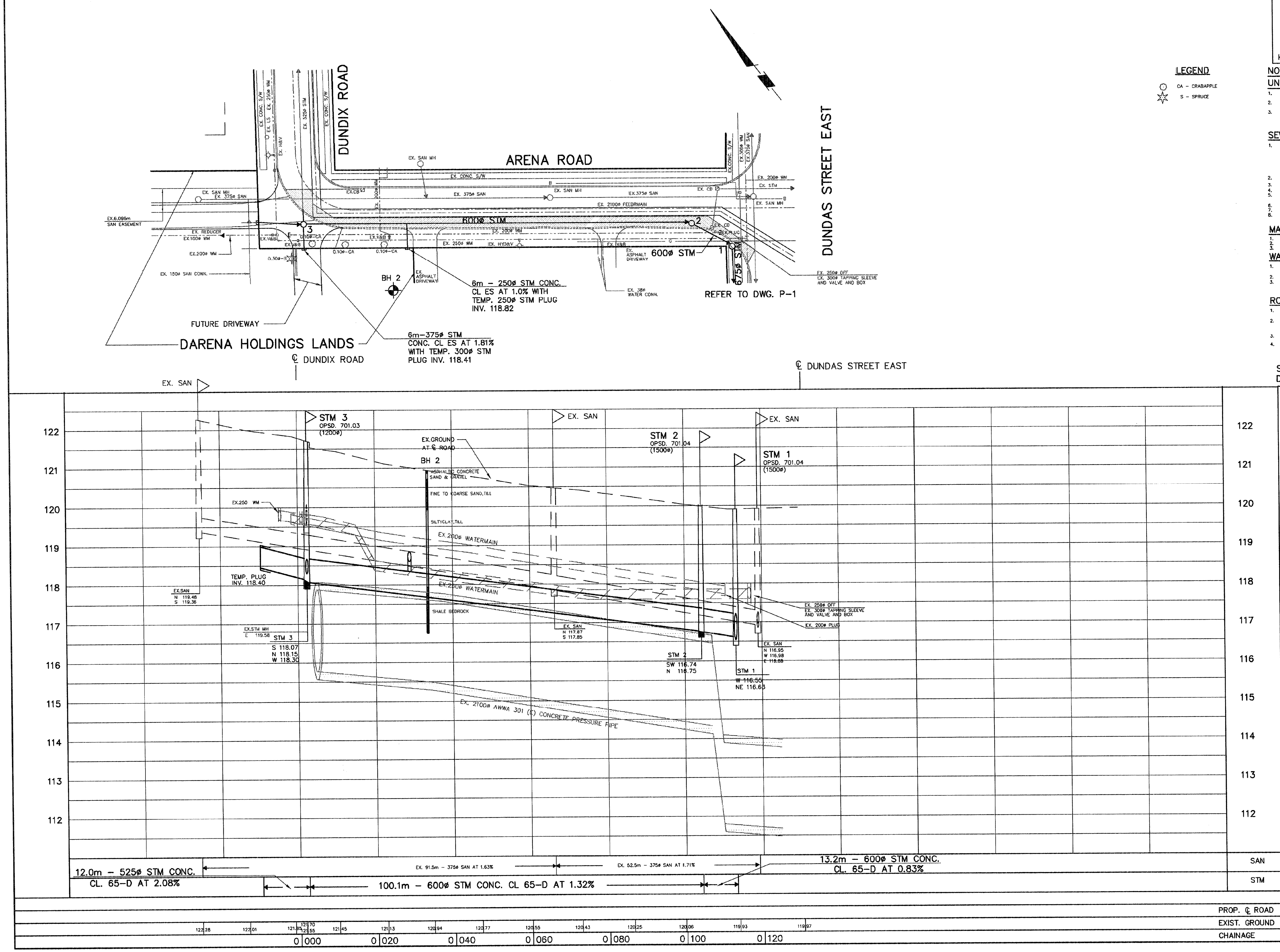
REVISIONS		
DATE	DETAILS	INIT.
MAR. 20/1996	FIRST SUBMISSION REVISIONS	G.J.
APR. 15/1996	REVISED STORM SEWER	G.J.
APR.22/1996	2nd SUBMISSION REVISION	G.J.
MAY 08/1996	INTERIM SUBMISSION REVISION	G.J.
MAR. 24/97	AS CONSTRUCTED STM.	J.K.



LEGEND

CA - CRABAPPLE

S - SPRUCE



NOTES

UNLESS OTHERWISE NOTED ON DRAWINGS

1. ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON THE SITE AND ANY DISCREPANCIES REPORTED TO THE ENGINEER.
2. ANY UTILITY RELOCATIONS REQUIRED DUE TO THE SEWER CONSTRUCTION TO BE UNDERTAKEN AT THE EXPENSE OF THE DEVELOPER.
3. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. GAS, HYDRO, TELEPHONE, OR ANY OTHER UTILITIES THAT MAY EXIST WITHIN THE STREETLINES AND MUST BE LOCATED BY ITS OWN UTILITIES AND VERIFIED PRIOR TO CONSTRUCTION.

SEWERS

1. CLASS "B" BEDDING IS TO USED AS PER CITY STANDARD 2112.08. SEWER BEDDING AND COVER MATERIAL SHALL CONFORM WITH CITY STANDARDS 2112.09 AND 2112.11. IF WATER IS PRESENT IN THE TRENCH EXCAVATION, THEN 19MM CLEAR STONE IS TO BE USED FOR BEDDING IN ACCORDANCE WITH CITY STANDARD 2112.11. IF THE SUB GRADE CONSISTS OF WET AND ERODIBLE SOILS, THEN THE BEDDING IS TO BE WRAPPED IN FILTER FABRIC FOR PROTECTION AGAINST THE INTRUSION OF FINES FROM THE SUBGRADE.
2. TRENCH BACKFILLING AS PER DETAIL ON THIS DRAWING.
3. STANDARD RUBBER GASKET JOINTS TO BE USED THROUGHOUT STORM SEWER SYSTEM
4. TRENCH WIDTH AT TOP OF PIPE AS PER CITY OF MISSISSAUGA STD. 2112.08
5. THE CONTRACTOR TO BE RESPONSIBLE FOR SUPPLYING EXTRA BEDDING AND/OR STRONGER PIPE IF ACTUAL TRENCH WIDTH EXCEEDS THE DESIGN WIDTH.
6. CONCRETE PIPES SMALLER THAN 450ø SHALL BE CL. ES.
7. CONCRETE PIPES LARGER THAN OR 450ø SHALL BE CL 65-D. UNLESS OTHERWISE NOTED.
8. ALL SEWER AND WATERMAIN CROSSINGS SHALL BE SUPPORTED BY CONCRETE ENCASEMENT OR GRANULAR MATERIAL AS APPROVED BY THE CITY ENGINEER.

MANHOLES

1. STORM MANHOLES AS PER OPSD. 701.01, UNLESS OTHERWISE NOTED ON DRAWINGS.
2. ALUMINIUM MANHOLE STEPS AS PER OPSD.405.01
3. MANHOLE FRAME AND COVER AS PER OPSD.401.040

WATERMAIN

1. ALL VALVES IN THE AREA OF CONSTRUCTION SHALL BE LOCATED WITH THE ASSISTANCE OF REGION OF PEEL AND RAISED, IF NECESSARY PRIOR TO ASPHALT WORKS BEING COMPLETED.
2. ONLY REGION OF PEEL SHALL OPERATE EXISTING HYDRANTS AND VALVES.
3. ALL SERVICES SHALL BE LOCATED PRIOR TO CONSTRUCTION AND PROTECTED DURING ALL CONSTRUCTION ACTIVITIES SHOULD DAMAGE OCCUR. REGION OF PEEL SHALL UNDERTAKE ANY REQUIRED REPAIRES AT THE EXPENSE OF THE CONTRACTOR.

ROADS

1. ALL TRENCHES WITHIN ROAD ALLOWANCE SHALL BE BACKFILLED AS PER DETAIL ON THIS DWG.
2. THE SUITABILITY AND COMPACTION OF ALL BACKFILL MATERIALS ARE TO BE CERTIFIED BY A RECOGNIZED SOIL CONSULTANT TO THE CITY ENGINEER PRIOR TO THE INSTALATION OF ANY ROAD BASE MATERIALS.
3. CURBS TO BE REINSTATED TO MATCH EXISTING CURB DIMENSIONS WITH 30Mpa CONC. AT 28 DAYS.
4. ALL DRIVEWAYS, AFFECTED BY SERVICE RECONNECTION WORKS ARE TO BE REPLACED IN TOTAL BETWEEN THE CURB AND SIDEWALK(OR STREETLINE, IF NO SIDEWALK)WITH 40mm OF HL3, 50mm HL8, 150mm OF GRAN. 'A' AND 300mm OF GRAN. 'B' COMPACTED TO 95% STANDARD PROCTOR DENSITY.

SUBMISSIONS: 1st ___ 2nd ___ Preservicing ________
DATE: ________ Interim ___ Final _____

GENERAL NOTES

ALL DRIVEWAYS ASPHALT UNLESS OTHERWISE NOTED.
ALL SERVICE LOCATIONS ARE APPROXIMATE AND MUST BE LOCATED IN THE FIELD.

● DENOTES BUILDING - NOT LOCATED

□ DENOTES BUILDING - LOCATED

B.M. No. 361 ELEV. 129.069m (1978 RE-ADJUSTMENT)

DESCRIPTION: ON THE W. FACE AT THE S. CORNER OF GARAGE OF A RED BRICK BUNGALOW. NO. 3147 ON THE E. SIDE OF THE CONSTITUTION BLVD., OPPOSITE HOMERIC DR.

DESIGNED BY ______ CHKD ______ APPROVED BY ______

Kleinfeldt Consultants Limited
PROFESSIONAL ENGINEERS
2400 MEADOWPINE BLVD.
SUITE 100
MISSISSAUGA, ONTARIO
L5N 6S2
(905)542-1600

DARENA HOLDINGS LIMITED

PART OF LOT 7, CON. 1 N.D.S.
AND LOT 10 AND 11 R.P. 455

OZ-56/95

MISSISSAUGA Transportation and Works

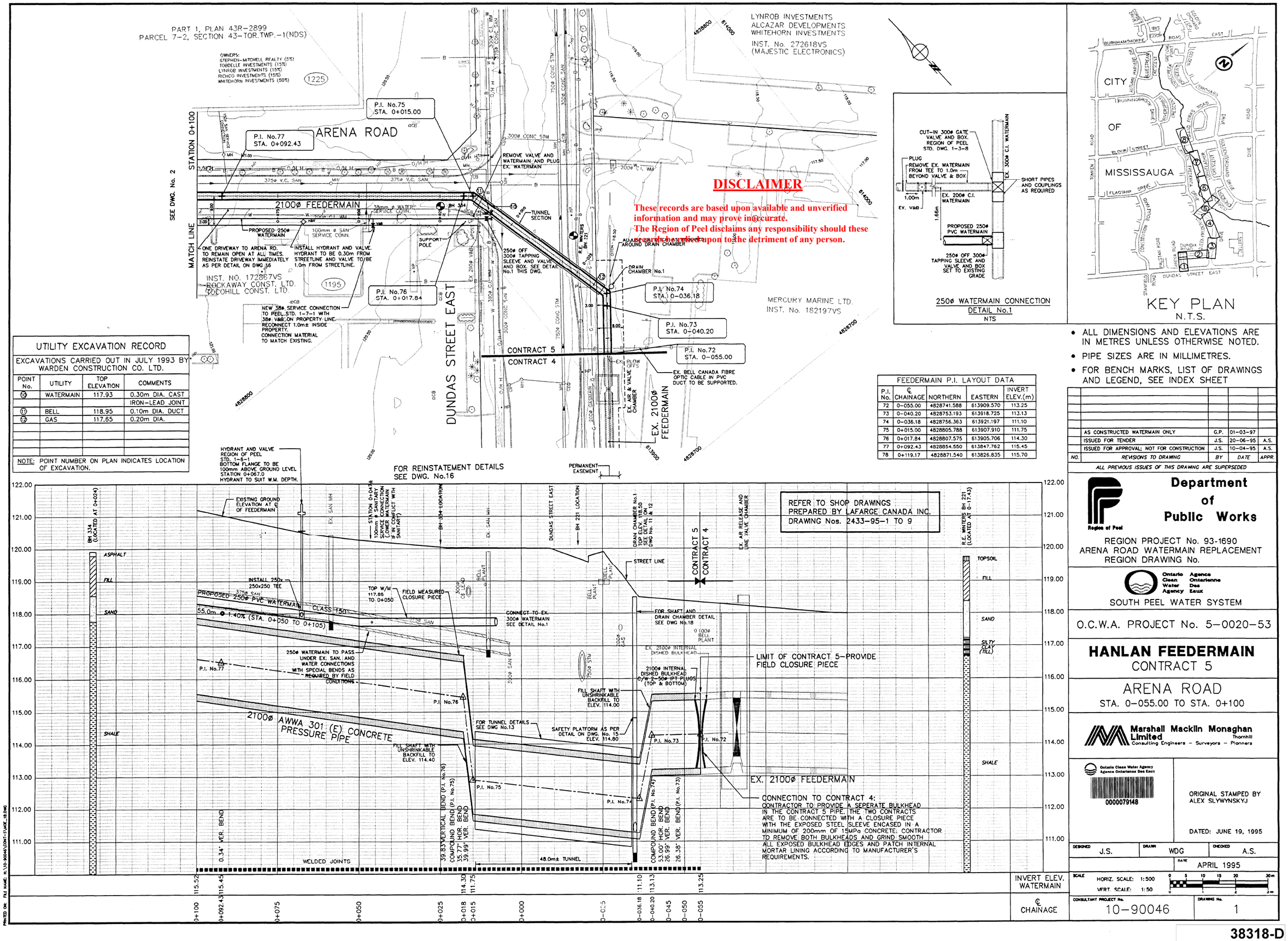
PROPOSED STORM SEWER ARENA ROAD

STN. 0+000 TO STN. 0+120

SCALE	HOR.1:500 VERT.1:50	AREA	Z-20	PROJECT No.	1789
DRAWN BY	G.J.	CHECKED BY	A.J.	PLAN No.	P-2
DATE	JAN./1996	SHEET 2	OF 2		

D:\MISS-SP\1789\DWG\PROF2.DWG 3

C-34709



UTILITY EXCAVATION RECORD

EXCAVATIONS CARRIED OUT IN JULY 1993 BY WARDEN CONSTRUCTION CO. LTD.

POINT No.	UTILITY	TOP ELEVATION	COMMENTS
⑩	WATERMAIN	117.93	0.30m DIA. CAST
			IRON-LEAD JOINT
⑪	BELL	118.95	0.10m DIA. DUCT
⑫	GAS	117.65	0.20m DIA.

NOTE: POINT NUMBER ON PLAN INDICATES LOCATION OF EXCAVATION.

FEEDERMAIN P.I. LAYOUT DATA

P.I. No.	℄ CHAINAGE	NORTHERN	EASTERN	INVERT ELEV.(m)
72	0-055.00	4828741.588	613909.570	113.25
73	0-040.20	4828753.193	613918.725	113.13
74	0-036.18	4828756.363	613921.197	111.10
75	0+015.00	4828805.788	613907.910	111.75
76	0+017.84	4828807.575	613905.706	114.30
77	0+092.43	4828854.550	613847.762	115.45
78	0+119.17	4828871.540	613826.835	115.70

- ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
- PIPE SIZES ARE IN MILLIMETRES.
- FOR BENCH MARKS, LIST OF DRAWINGS AND LEGEND, SEE INDEX SHEET

NO.	REVISIONS TO DRAWING	BY	DATE	APPR.
	AS CONSTRUCTED WATERMAIN ONLY	G.P.	01-03-97	
	ISSUED FOR TENDER	J.S.	20-06-95	A.S.
	ISSUED FOR APPROVAL; NOT FOR CONSTRUCTION	J.S.	10-04-95	A.S.

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

Department of Public Works
Region of Peel

REGION PROJECT No. 93-1690
ARENA ROAD WATERMAIN REPLACEMENT
REGION DRAWING No.

Ontario Clean Water Agency / Agence Ontarienne Des Eaux
SOUTH PEEL WATER SYSTEM

O.C.W.A. PROJECT No. 5-0020-53

HANLAN FEEDERMAIN
CONTRACT 5

ARENA ROAD
STA. 0-055.00 TO STA. 0+100

Marshall Macklin Monaghan Limited
Consulting Engineers - Surveyors - Planners
Thornhill

Ontario Clean Water Agency / Agence Ontarienne Des Eaux
0000079148

ORIGINAL STAMPED BY ALEX SLYWYNSKYJ
DATED: JUNE 19, 1995

DESIGNED	DRAWN	CHECKED
J.S.	WDG	A.S.

DATE: APRIL 1995

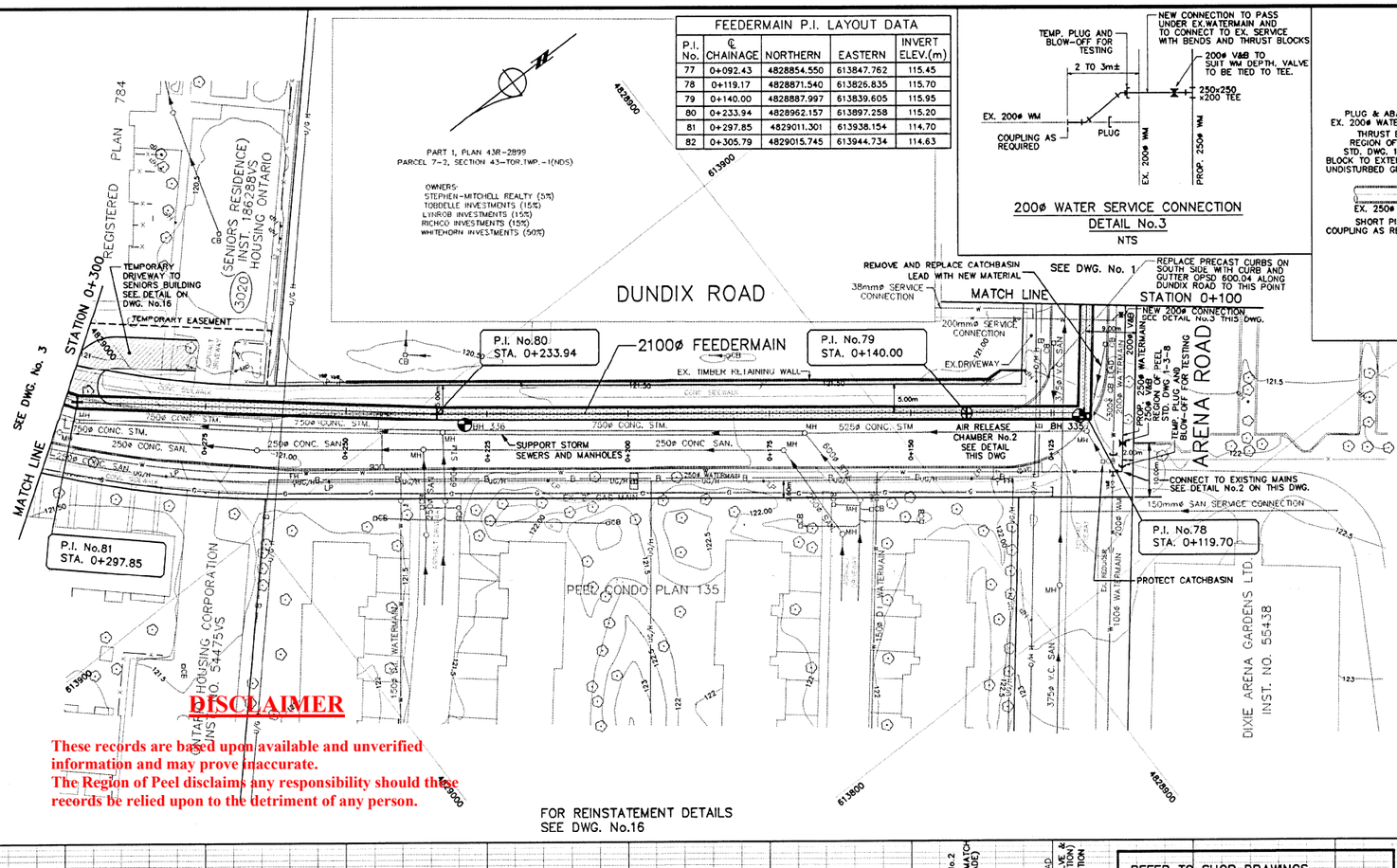
SCALE: HORIZ. SCALE: 1:500 (0 5 10 15 20 30m) VERT. SCALE: 1:50 (0 1 2 3m)

CONSULTANT PROJECT No. 10-90046
DRAWING No. 1

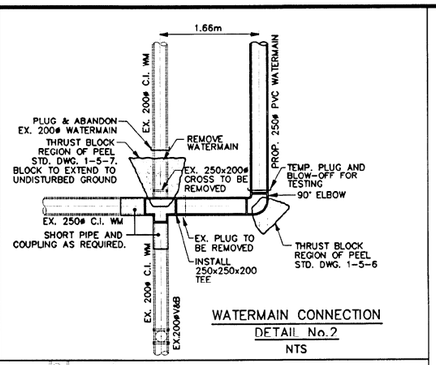
PRINTED ON: FILE NAME: N:\10-90046\CONT-5\VOL_1\5.DWG

38318-D

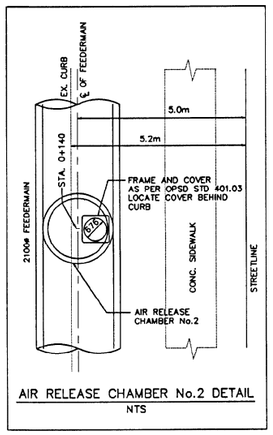
FEEDERMAIN P.I. LAYOUT DATA				
P.I. No.	℄ CHAINAGE	NORTHERN	EASTERN	INVERT ELEV.(m)
77	0+092.43	4828854.550	613847.762	115.45
78	0+119.17	4828871.540	613826.835	115.70
79	0+140.00	4828887.997	613839.605	115.95
80	0+233.94	4828962.157	613897.258	115.20
81	0+297.85	4829011.301	613938.154	114.70
82	0+305.79	4829015.745	613944.734	114.63



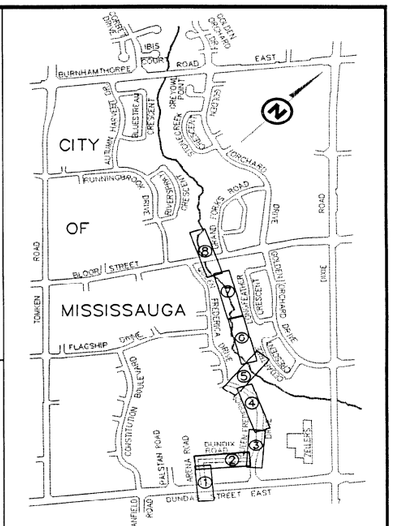
200ø WATER SERVICE CONNECTION
DETAIL No.3
NTS



WATERMAIN CONNECTION
DETAIL No.2
NTS



AIR RELEASE CHAMBER No.2 DETAIL
NTS

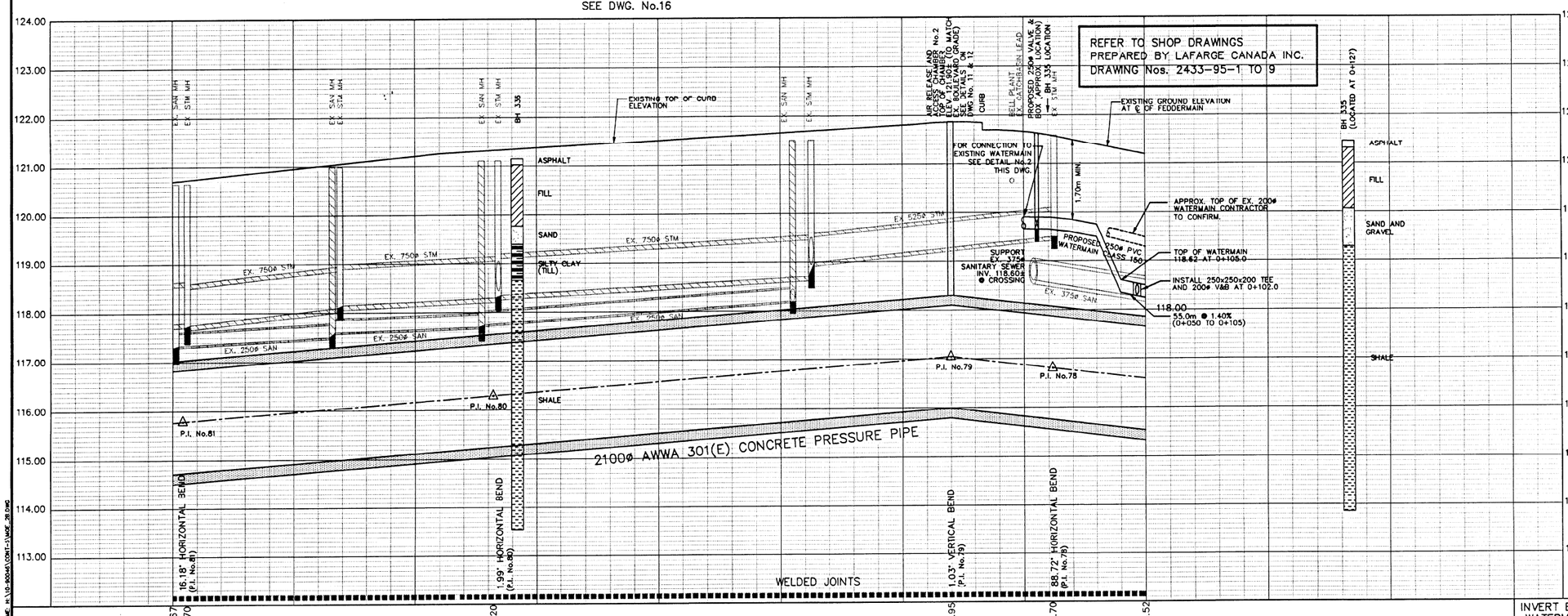


KEY PLAN
N.T.S.

- ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
- PIPE SIZES ARE IN MILLIMETRES.
- FOR BENCH MARKS, LIST OF DRAWINGS AND LEGEND, SEE INDEX SHEET

NO.	REVISIONS TO DRAWING	BY	DATE	APPR.
	AS CONSTRUCTED WATERMAIN ONLY	G.P.	01-03-97	
	ISSUED FOR TENDER	J.S.	20-06-95	A.S.
	ISSUED FOR APPROVAL; NOT FOR CONSTRUCTION	J.S.	10-04-95	A.S.

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED



Department of Public Works
Region of Peel

REGION PROJECT No. 93-1690
ARENA ROAD WATERMAIN REPLACEMENT
REGION DRAWING No.

Ontario Clean Water Agency / Agence Ontarienne Des Eaux
SOUTH PEEL WATER SYSTEM

O.C.W.A. PROJECT No. 5-0020-53

HANLAN FEEDERMAIN
CONTRACT 5

DUNDIX ROAD
STA. 0+100 TO STA. 0+300

Marshall Macklin Monaghan Limited
Thornhill
Consulting Engineers - Surveyors - Planners

Ontario Clean Water Agency / Agence Ontarienne Des Eaux
0000079149

ORIGINAL STAMPED BY ALEX SLYWYNSKYJ

DATED: JUNE 19, 1995

DESIGNED	DRAWN	CHECKED
J.S.	WDG	A.S.

DATE APRIL 1995

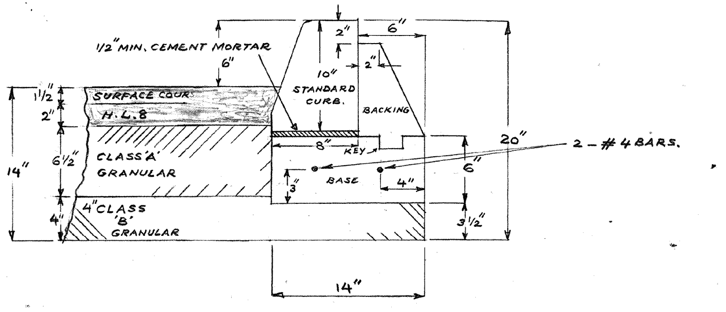
SCALE
HORIZ. SCALE: 1:500
VERT. SCALE: 1:50
0 5 10 15 20 30m

CONSULTANT PROJECT No. 10-90046

DRAWING No. 2

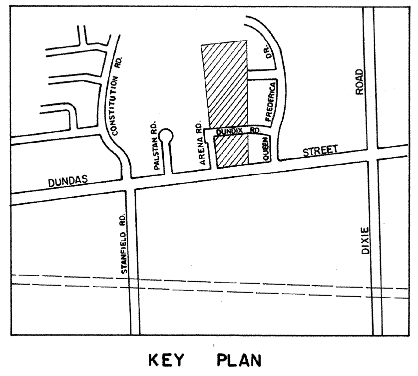
38319-D

PRINTED ON: FILE NAME: W:\10-90046\CONT-1\WDG_2R.DWG



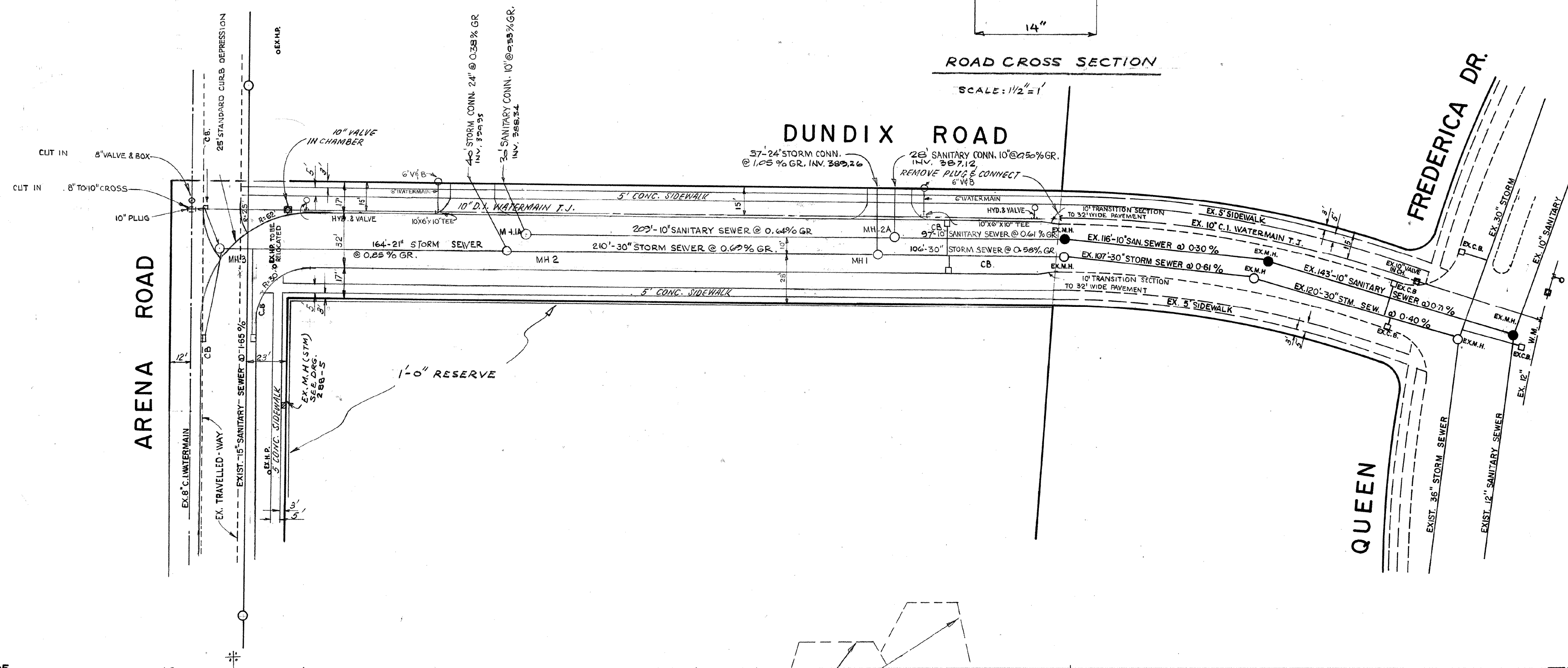
ROAD CROSS SECTION

SCALE: 1½" = 1'



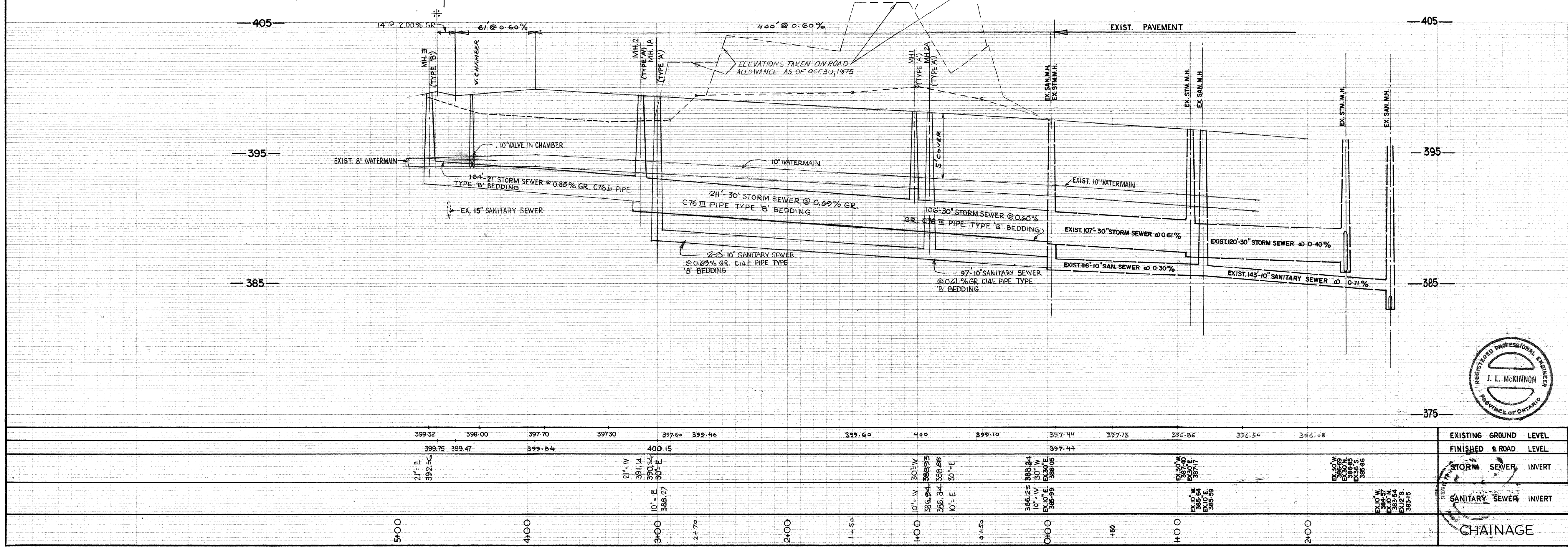
KEY PLAN

SCALE: 1" = 1000'



NOTES:

1) BENCHMARK No. 86 ON THE EAST FACE AT THE NORTH CORNER OF THE ROMAN CATHOLIC CHURCH AT SOUTH WEST CORNER OF DUNDAS STREET AND DIXIE ROAD. ELEVATION 391.85
2) MANHOLES AS TOWN OF MISSISSAUGA STANDARD TYPE AS NOTED.
3) C.B. LEADS 10" DIA. CONCRETE PIPE UNLESS NOTED OTHERWISE.
4) SANITARY SEWERS TO HAVE APPROVED MECHANICAL JOINTS AND PREMIUM RUBBER GASKETS.
5) SPRINGLINES OF CONNECTIONS INTO MANHOLES ARE TO MATCH THE SPRINGLINE OF THE MAIN SEWER.
6) THE CONTRACTOR SHALL SUPPLY AT HIS EXPENSE ADDITIONAL BEDDING AND/OR STRONGER PIPE WHERE THE ACTUAL TRENCH WIDTH AT THE TOP OF PIPE EXCEEDS THE SPECIFIELD WIDTH.
7. MAX TRENCH WIDTH AT TOP AT PIPE
   10" - 12" PIPE 3'- 0" TRENCH
   15" - 30" PIPE - OUTSIDE DIA. + 2'-0"
8 ALL WATERMAIN TO BE DUCTILE IRON ANSI CLASS II CEMENT LINED WITH TYTON JOINTS.
9 THE MINIMUM LATERAL DISTANCE BETWEEN WATER FACILITIES AND OTHER UTILITIES SHALL BE 4 FEET



FIELD BOOK INFORMATION

REVISIONS

NO.	DATE	DETAILS	AUTH.
1.	OCT. 19, 1973	AMENDED AFTER RECEIPT OF TOWN COMMENTS	H.A.G.
2.	NOV. 22, 1973	AMENDED AFTER RECEIPT OF P.U.C COMMENTS & SOIL REPORT.	B.S.S.
3.	NOV 23 1973	AMENDED AFTER RECEIPT OF TOWN COMMENTS	B.S.S.
4.	DEC 10 1973	AMENDED TO SHOW EX. STM. M.H ON ARENA RD.	B.S.S.
5.	NOV. 19, 1975	SANITARY AND STORM SEWER REVISED	H.A.G.
	DEC. 13/78	"AS CONST" - SEWER.	JB.

TOWN OF MISSISSAUGA

MISSISSAUGA COMMERCIAL PROPERTIES

PLAN & PROFILE OF :

DUNDIX ROAD

FROM : EAST LIMIT OF SUBDIV. TO : ARENA ROAD

SCALE	HORIZ. 1" = 40' / VERT. 1" = 4'	DRAWING NO. DRG. 288-4
DATE	SEPT. 1973	
DRAWN BY	H. A. GREEN	
CHECKED BY		SHEET OF

REGISTERED PROFESSIONAL ENGINEER J. L. McKINNON PROVINCE OF ONTARIO

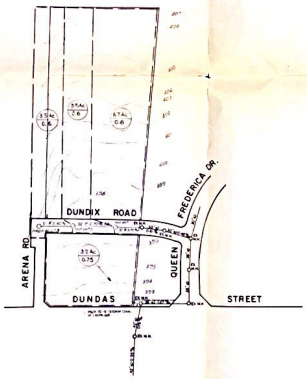
SETCHELL & McKINNON LTD.
CONSULTING ENGINEERS
TORONTO & BURLINGTON

FILE NO. | DRAWING NO. C-13576

TRANSLAR 300-9-69

P.N. 72-052

4



FIELD BOOK INFORMATION

REVISIONS

NO	DATE	DETAILS	AUTH
1	OCT 19, 1973	AMENDED AFTER RECEIPT OF TOWN COMMENTS	R.A.G.

TOWN OF MISSISSAUGA

MISSISSAUGA COMMERCIAL PROPERTIES

STORM AREA KEY PLAN

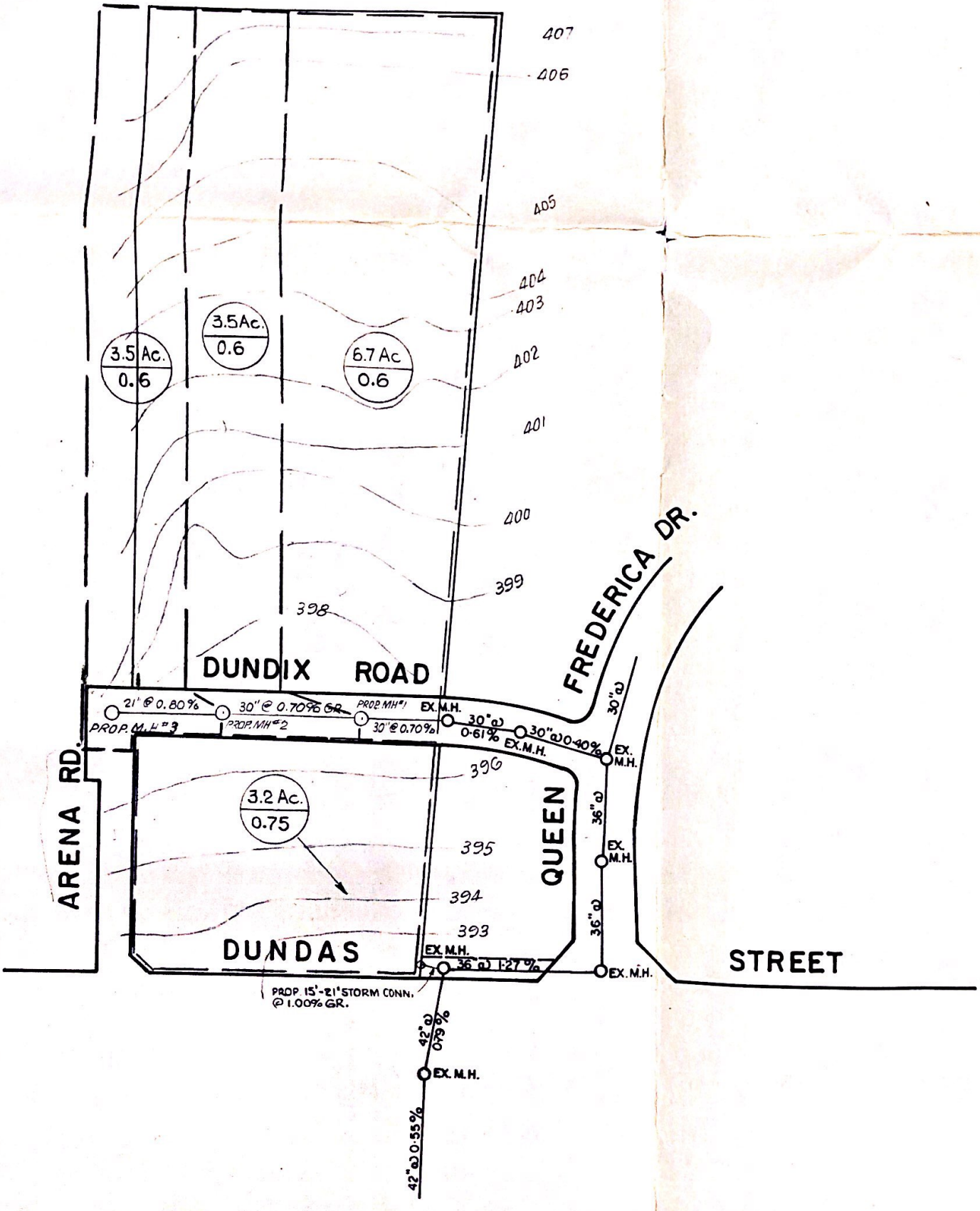
SCALE	HORIZ. 1" = 200'	DRAWING NO
	VERT.	DRG. 288-3
DATE	SEPT 1973	
DRAWN BY	H.A. GREEN	
CHECKED BY		SHEET OF

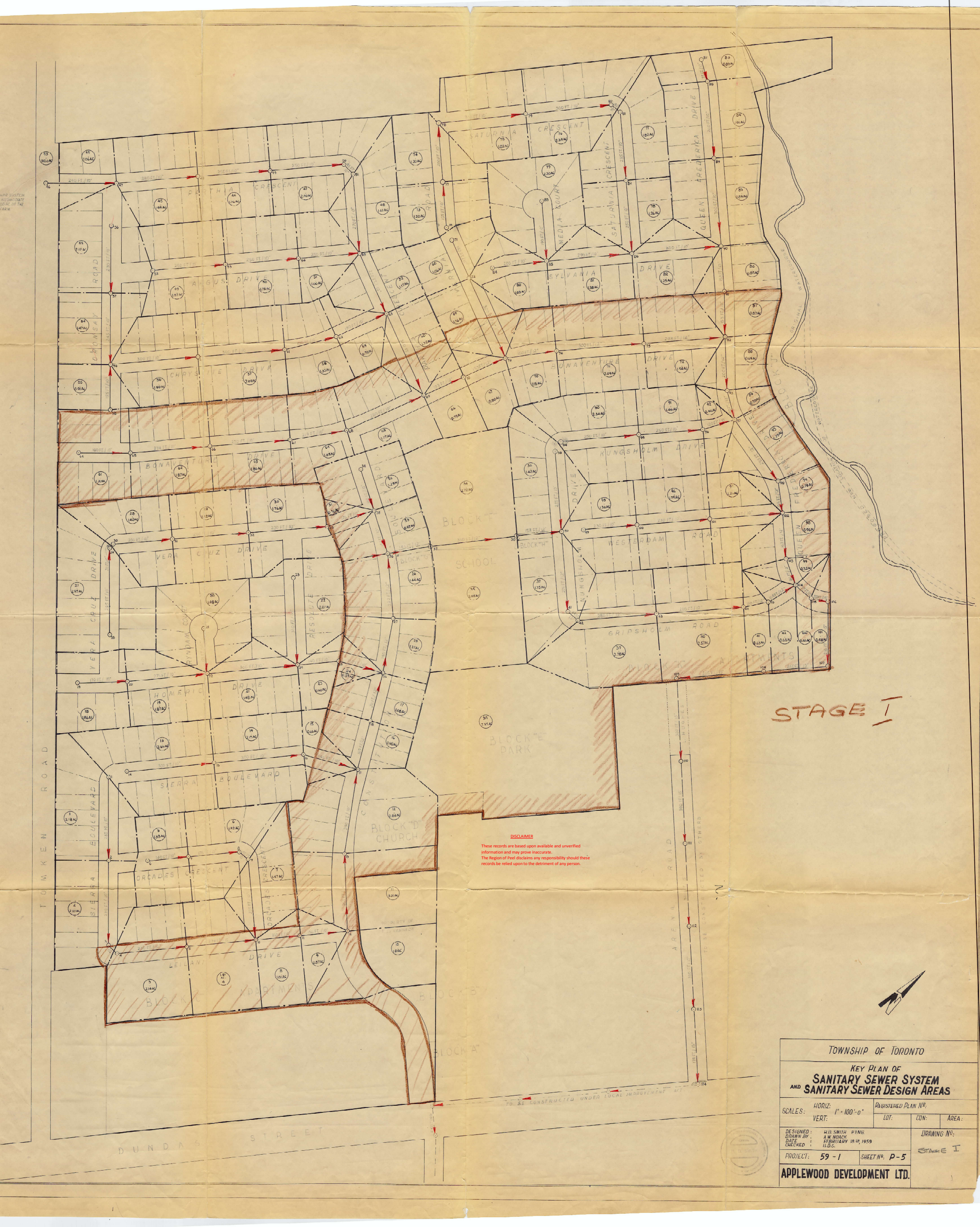
SETCHELL & McKINNON LTD.
CONSULTING ENGINEERS
TORONTO & BURLINGTON

FILE NO. | DRAWING NO.

12-311-00020

C-13575





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TOWNSHIP OF TORONTO

KEY PLAN OF
SANITARY SEWER SYSTEM AND SANITARY SEWER DESIGN AREAS

SCALES: HORIZ: 1" = 100'-0" VERT:	REGISTERED PLAN Nº:			
	LOT:	CON:	AREA:	
DESIGNED: W.D. SMITH P.ENG. DRAWN BY: A.W. NOACK DATE: FEBRUARY 18 th, 1959 CHECKED: W.D.S.	DRAWING Nº: STAGE I			
PROJECT: 59 - 1	SHEET Nº: P-5			

APPLEWOOD DEVELOPMENT LTD.

DISCLAIMER

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PALSTAN ROAD

CONSTITUTION BLVD

RESOLUTE DR

HOMERIC DR

SIERRA BLVD

LEILANI DRIVE

DUNDAS STREET EAST

DIXIE CURLING CLUB

APPLEWOOD HEIGHTS PARK

REG PLAN 611

REG PLAN 455

PEEL CONDOMINIUM PLAN 82

LEGEND

- SANITARY MANHOLE
- EXISTING SEWER
- PROPOSED SANITARY SEWER
- DRAINAGE AREA BOUNDARY
- 1.86 / 175 - DRAINAGE AREA (HECTARES) / (POPULATION PER HECTARES)

STONE MANOR DEVELOPMENTS (CONSTITUTION) INC.

REV. - FEBRUARY 2005

SKIRA & ASSOCIATES LTD.
CONSULTING ENGINEERS
3464 Semenyk Court, Suite 100, Mississauga, Ontario L5C 4P8
Tel. (905) 276-5100 Fax. (905) 270-1936 Email - info@skiraconsult.ca

SANITARY DRAINAGE PLAN

PROJECT No. 204-M04	FIGURE 4
DATE - DECEMBER 2004	
SCALE - 1 : 2000	DRAWN BY - M.B.

SEWERSHED BRANCH ID: ME-LEC-3

MAP SCALE 1:6,000

0 100 200 300 400

Meters

N W E S

LEGEND

- SANITARY DROP MANHOLE - REGION
- SANITARY VORTEX MANHOLE - REGION
- SANITARY MANHOLE ACTIVE - REGION
- SANITARY HAZARDOUS MANHOLE - REGION
- SANITARY SAMPLING MANHOLE
- LOCAL COLLECTOR<375mm
- LOCAL TRUNK COLLECTOR>=375mm_AND_<750mm
- MAJOR TRUNK COLLECTOR>=750mm
- SANITARY SEWERSHED BOUNDARY
- STREET NAME
- PARCEL PROPERTY

Region of Peel working with you

Map Produced By: Information Management Group, Operations Support, Public Works, Region of Peel
Map Number: PW_IMG_GDA_ID_224_ME
Date: June 6, 2021