

Town of Caledon
c/o MHBC
113 Collier Street
Barrie, ON, L4M 1H2

Re: **Functional Servicing Report in Support of OPA
Wildfield Village Secondary Plan
Town of Caledon, Region of Peel**

The following analysis has been prepared to provide a summary of the existing and planned sanitary and water distribution systems and associated improvements located throughout the Region of Peel and Town of Caledon, that support the development of the Wildfield Village Secondary Plan (WVSP) area. It also includes a summary of the ongoing stormwater management (SWM) analysis that is current underway as part of the WVSP Local Subwatershed Study (LSS).

The WVSP area is part of the future development areas identified in the Region Official Plan (2022) and Town of Caledon Official Plan (2024). The WVSP area is approximately 358.1 hectares (ha) in size, and is bound by Centreville Creek Road to the west, Mayfield Road to the south, the planned Highway 413 Transportation Corridor to the north and the West Humber River to the east (refer to **Figure 1**).

Sanitary Sewer Servicing

Existing and Planned Sanitary Servicing

There are no existing sanitary sewers within the WVSP area or on the arterial roads immediately surrounding the WVSP area. An existing 1200 mm diameter sanitary sewer is located on The Gore Road approximately 615 m south of Mayfield Road. There is also an existing sanitary sewer (size to be confirmed) located on McVean Drive at the intersection with Countryside Drive approximately 1.25 km south of the WVSP area.

The planned sanitary servicing improvements in the Region of Peel and Town of Caledon have been determined through the Region of Peel Water and Wastewater Master Plan (2020), Region of Peel Settlement Boundary Expansion (SABE) Water and Wastewater Servicing Analysis (2022), and ongoing coordination with Region of Peel staff. The WVSP area is identified as Secondary Plan Area G2 in the Town of Caledon Official Plan (2024). Relevant figures from the Region documents and coordination noted above are provided in **Attachment A**. Through the documents and discussions outlined above, it has been confirmed that the WVSP has been accounted for by the Region with regard to wastewater servicing through the extension of existing services.

The Region of Peel Water and Wastewater Master Plan (2020) identifies the servicing needs of future development to 2041. The Master Plan projects proposed in this document include watermain and sanitary sewer projects throughout the Region, including the planned growth areas in Caledon north of Mayfield Road and in west Bolton, but do not include the development area surrounding the anticipated Bolton GO station. Several wastewater projects are noted in the immediate vicinity of the WVSP including: T-085 (The Gore Road from current termination to Mayfield Road) and ST-256 (McVean Drive from current termination to Mayfield Road).

The Region of Peel SABE Water and Wastewater Servicing Analysis (2022) identifies the servicing needs of the anticipated growth areas in Caledon from 2041 to 2051 including the development area surrounding the anticipated Bolton GO Station. The analysis focused on conveyance infrastructure and did not include a summary of water treatment plant and wastewater treatment plant improvements required beyond those identified in the Region of Peel Water and Wastewater Master Plan (2020). The WVSP area was identified as part of Sanitary Servicing Area 3. No additional wastewater projects were noted in the immediate vicinity of the WVSP beyond those identified in the Region of Peel Water and Wastewater Master Plan (2020).

Draft Development Charge (DC) Project Mapping (2024) was obtained from Region of Peel staff which illustrates preliminary sanitary projects to support the full buildout of the SABE including the WVSP. It should be noted that the projects and construction timing shown are preliminary only and subject to change. The Draft DC Project Mapping (2024) shows The Gore Road Trunk Sewer (T-085) extending north of Mayfield Road to King Street and the McVean Drive trunk sewer extending north of Mayfield Road on Centreville Creek Drive to immediately south of the planned Highway 413 (refer to **Attachment A**).

A first submission of the detailed design of project T-085 has been completed by Schaeffers and Associates Limited and reviewed by Region of Peel staff. The proposed 1200 mm diameter concrete sanitary sewer will extend north on The Gore Road from the current termination point approximately 80 m north of Beamish Court to immediately south of the planned Highway 413. The design drawings show individual plugs at the proposed maintenance hole structures to accept sanitary flows from the WVSP area at the anticipated collector road locations and at the intersection with Mayfield Road. The latest version of the design drawings has been provided in **Attachment B** for reference.

Proposed Sanitary Servicing

The Master Sanitary Drainage Plan (refer to **Figure 2**) shows local wastewater mains (i.e. sanitary trunk sewers) and drainage boundaries per the latest Region of Peel Draft DC Project Mapping (2024). As shown, the WVSP area will be serviced via several connections to the future wastewater main on The Gore Road (project T-085) at each of the proposed collector road intersections. The internal alignment and location of the stubs for the proposed sanitary sewers are preliminary only and subject to change

at the Draft Plan of Subdivision stage. No external drainage is proposed to be conveyed through the WVSP area in accordance with the latest Region of Peel Draft DC Project Mapping (2024).

The sanitary sewers within the WVSP area are anticipated to have slopes ranging between 0.5% and 2% (typically). Slopes of less than 0.5% may be required for trunk sanitary sewers to limit the depth of trunk infrastructure while meeting minimum velocity criteria. Preliminary grades and inverts will be provided as part of the Phase 2 LSS which is currently underway.

The sanitary sewer system will be designed in accordance with the Region of Peel and MECP criteria, including but not limited to:

- Residential Sanitary Generation Rate: 290 L/c/d,
- Commercial Sanitary Generation Rate: 270 L/emp/ha
- Population Density:
 - Single detached: 4.2 person/unit,
 - Semi-detached: 4.2 person/unit,
 - Townhouse: 3.4 person/unit,
 - Large Apartment (greater than 1 bedroom): 3.1 person/unit,
 - Small Apartment (less than or equal to 1 bedroom): 1.7 person/unit,
- Peaking Factor: Harmon (Max. 4.0),
- Infiltration Rate: 0.26 L/s/ha,
- Minimum Pipe Size: 200 mm diameter,
- Minimum Pipe Cover: 2.5 m below centerline road elevation,
- Minimum Actual Velocity: 0.75 m/s, and
- Maximum Velocity: 3.0 m/s.

A preliminary sanitary design sheet has been prepared based on the proposed Land Use Plan for the WVSP area and assumed land-use statistics. The sanitary design sheet and Land Use Plan are provided in **Attachment C**. The WVSP area sanitary drainage boundaries, defined by the preliminary limits of the Natural Heritage System (NHS) as determined in the Phase 1 LSS (SCS Consulting Group Ltd. and GEI, November 2024), will be refined through the Secondary Plan and Draft Plan approval processes. Therefore, the populations and design flows are preliminary only and are subject to change.

Based on the preliminary design flows to each of the outlet locations to The Gore Road wastewater main, the plug sizes shown on the first submission project T-085 detailed design drawings prepared by Schaeffers and Associates Ltd. will need to be increased.

Preliminary grading and servicing obvert design will be provided as part of the Phase 2 Local Subwatershed Study.

Water Supply and Distribution

Existing and Planned Water Servicing

There are existing watermains on several arterial roads surrounding the WVSP area including 200 mm diameter watermains on Centreville Creek Road, Healey Road, and The Gore Road; and, a 300 mm diameter watermain, 600 mm diameter watermain (Pressure Zone 5), and 750 mm diameter watermain (Pressure Zone 6) on Mayfield Road (refer to **Figure 3**). The WVSP area is located entirely within Pressure Zone 6 which has a serviceable elevation of 214.5 m to 259.1 m. The WVSP is located within the East Region of Peel transmission system. The system is fed from Lake Ontario and treated at the Arthur P. Kennedy Water Treatment Plant (HLP1C, HLP2C). Water storage and distribution for the WVSP area is provided by the Tullamore Reservoir (ES4) and Pumping Station (LLP5E, HLP6E) and the Bolton Elevated Tanks (BS6).

The planned water servicing improvements in the Region of Peel and Town of Caledon have been determined through the Region of Peel Water and Wastewater Master Plan (2020), and the Region of Peel SABE Water and Wastewater Servicing Analysis (2022). The WVSP area is identified as Secondary Plan Area G2 in the Town of Caledon Official Plan (OP, 2024). Relevant figures from the Region documents and Town OP are provided in **Attachment A**. Through the documents and discussions outlined above, it has been confirmed that the WVSP area has been accounted for by the Region with regard to water servicing through the extension of existing services and planned water servicing improvements.

The Region of Peel Water and Wastewater Master Plan (2020) identifies the servicing needs of future development to 2041. Several water projects are noted in the immediate vicinity of the Secondary Plan including: D-085 (Mayfield Road from Centreville Creek Road to the Gore Road), and D-184 (Centreville Creek Road from Mayfield Road to a mid-block connection). Per correspondence with Region of Peel staff, it is understood that project D-085 has been completed.

The Region of Peel SABE Water and Wastewater Servicing Analysis (2022) identifies the servicing needs of the anticipated growth areas in Caledon from 2041 to 2051 including the development area surrounding the anticipated Bolton GO Station. The WVSP Area was identified as part of water pressure subzone 6E. No additional water projects were noted in the immediate vicinity of the WVSP beyond those identified in the Region of Peel Water and Wastewater Master Plan (2020).

Draft DC Project Mapping (2024) was obtained from Region of Peel staff which illustrates preliminary watermain projects to support the full buildout of the SABE including the WVSP. It should be noted that the projects and construction timing shown are preliminary only and subject to change. The Draft DC Mapping shows a proposed 600 mm distribution main on The Gore Road extending north of Mayfield Road to Healey Road and a mid-block distribution main from Centreville Creek Drive to The Gore Road. A 400 mm diameter distribution main and 900 mm diameter transmission main are proposed on Healey Road; however, these projects are located outside of the WVSP Area (refer to **Attachment A**).

A first submission of the detailed design of the distribution mains on Centreville Creek Road and The Gore Road has been completed by Schaeffers and Associates Limited and reviewed by Region of Peel staff. The proposed 400 mm diameter PVC watermain on Centreville Creek Road will extend north from Mayfield Road to the future mid-block collector road. The proposed 600 mm diameter concrete pressure pipe watermain on The Gore Road will extend north from Mayfield Road to the future mid-block collector road. The design drawings show proposed chambers for future connections from the WVSP area at anticipated collector road locations. The latest version of the design drawings has been provided in **Attachment B** for reference.

Proposed Water Servicing

The Master Water Servicing Plan (**Figure 3**) shows proposed local distribution mains and future Regional distribution and transmission mains per the latest Region of Peel Draft DC Project Mapping (2024), and the approximate pressure zone boundaries. As noted above, the WVSP area is located in Pressure Zone 6.

Servicing for the WVSP area will be provided by the distribution mains planned by the Region with connections to the existing distribution mains on Mayfield Road and the future distribution mains on Centreville Creek Road and The Gore Road.

The watermain system will be designed in accordance with the Region of Peel and MECP criteria including:

- Residential water usage rate: 280 L/c/d,
- Commercial water usage rate: 300 L/emp/ha,
- Population Density:
 - Single detached: 4.2 person/unit,
 - Semi-detached: 4.2 person/unit,
 - Townhouse: 3.4 person/unit,
 - Large Apartment (greater than 1 bedroom): 3.1 person/unit,
 - Small Apartment (less than or equal to 1 bedroom): 1.7 person/unit,
- Minimum Pipe Size: 150 mm diameter,
- Minimum Pipe Depth: 1.7 m, and
- Maximum Hydrant Spacing: 150 m.

Preliminary population estimates for the development blocks of the WVSP area have been prepared based on the proposed Land Use Plan for the WVSP area and assumed land-use statistics. The Land Use Plan and preliminary population estimates are provided in **Attachment C**, noting that the estimates are to be incorporated into the Region of Peel water model. The WVSP area boundaries as defined by the preliminary limits of the NHS described in the Phase 1 LSS (SCS Consulting Group Ltd. and GEI,

November 2024), will be refined through the Secondary Plan and Draft Plan approval process. Therefore, the populations are preliminary only and are subject to change.

Storm Servicing and Stormwater Management

Storm servicing, including the establishment of stormwater management (SWM) criteria and preliminary SWM facility locations, will be determined through the ongoing LSS being prepared by SCS Consulting Group and GEI in support of the WVSP. The SWM design for the Secondary Plan will meet all relevant quantity, quality and erosion control, temperature mitigation, water balance, and conveyance criteria. SWM facilities will generally be located at the existing low points throughout the WVSP area adjacent to existing conveyance features and watercourses to provide a suitable outlet. Refer to the Wildfield Village Land Use Concept Plan provided in **Attachment C** for preliminary SWM facility locations.

Please contact the undersigned if you have any questions or require any additional information.

Sincerely,

SCS Consulting Group Ltd.



Nicholas McIntosh, M.A.Sc., P. Eng.
nmcintosh@scsconsultinggroup.com



Andrea Keeping, P.Eng.
akeeping@scsconsultinggroup.com

Attachments

Figure 1 – Site Location Plan

Figure 2 – Master Sanitary Drainage Plan

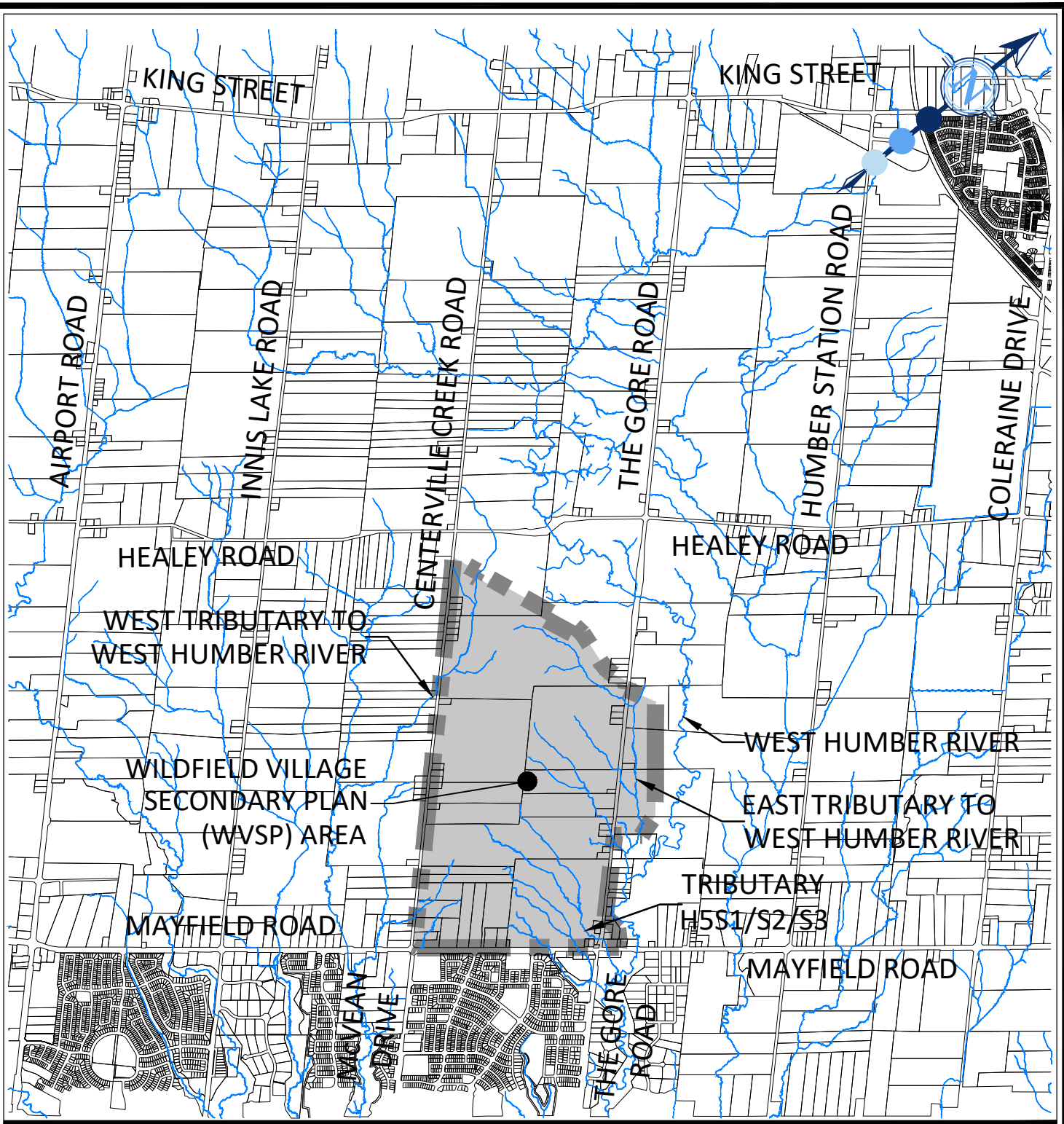
Figure 3 – Master Water Servicing Plan

Attachment A – Region of Peel Documents

Attachment B – Detailed Design Drawings

Attachment C – Preliminary Population Estimates and Sanitary Design Sheet

- c. Mr. Glenn Pitura, Arutip Engineering Ltd.
- Mr. Paul Lowes, SGL Planning & Design Inc.

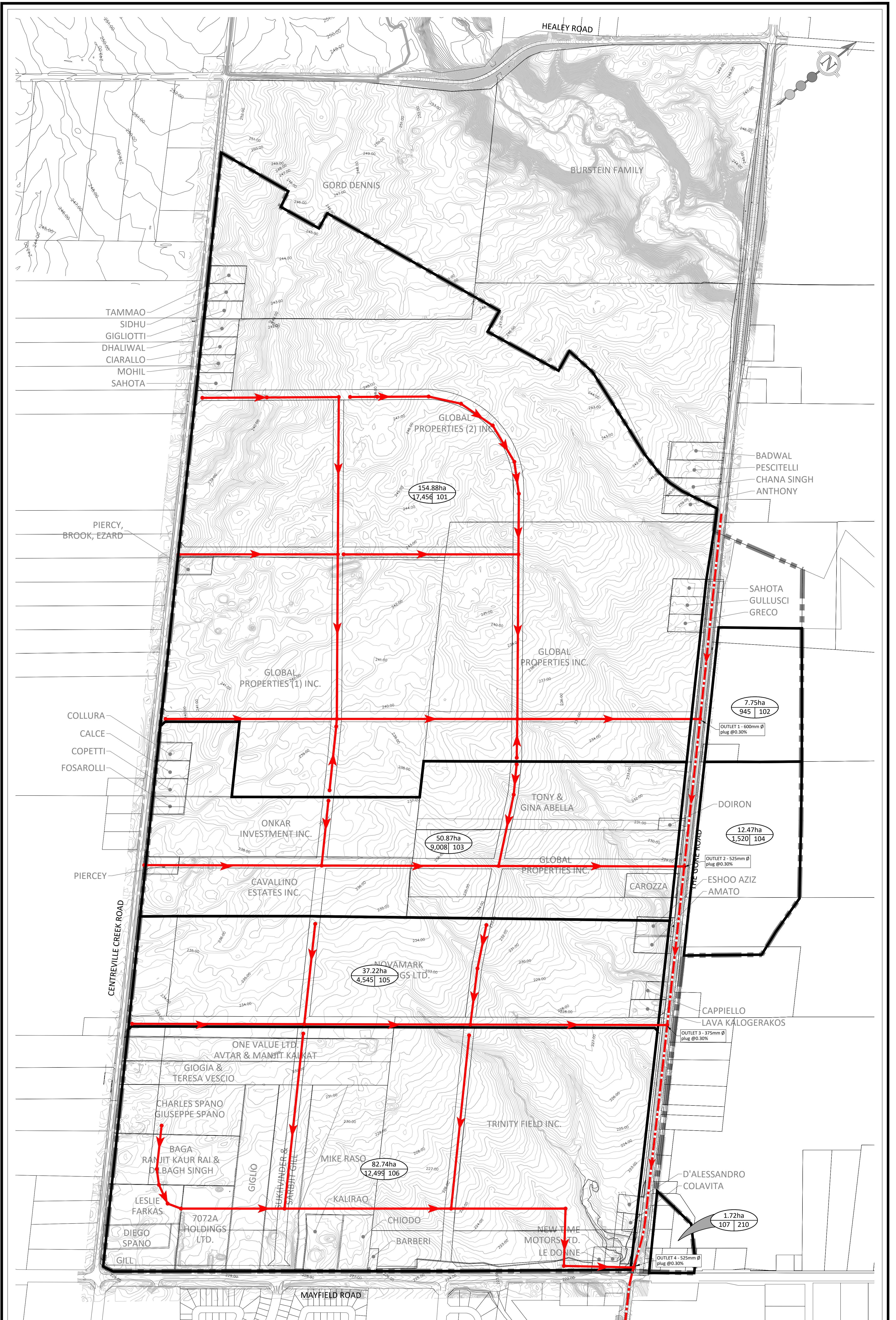


30 CENTURIAN DRIVE, SUITE 100
 MARKHAM, ONTARIO L3R 8B8
 TEL: (905) 475-1900
 FAX: (905) 475-8335

WILDFIELD VILLAGE

KEY PLAN

DESIGNED BY: R.R.B.	CHECKED BY: A.R.K.	PROJECT No: 2630	FIGURE No: 1
SCALE: N.T.S.	DATE: DECEMBER 2024		



*NOTE: LAYOUT IS SCHEMATIC ONLY, DETAILS TO BE PROVIDED AT DETAILED DESIGN STAGE

LEGEND:

- WILDFIELD VILLAGE SECONDARY PLAN (WVSP) AREA LIMITS
- SANITARY DRAINAGE BOUNDARY
- PROPOSED SANITARY SEWER AND MAINTENANCE HOLE
- FUTURE 750mm ϕ SANITARY SEWER AND MAINTENANCE HOLE
- 82.71ha
14,887 406 DRAINAGE AREA (HECTARES)
- 82.71ha
14,887 406 CATCHMENT ID
- 82.71ha
14,887 406 POPULATION

WILDFIELD VILLAGE

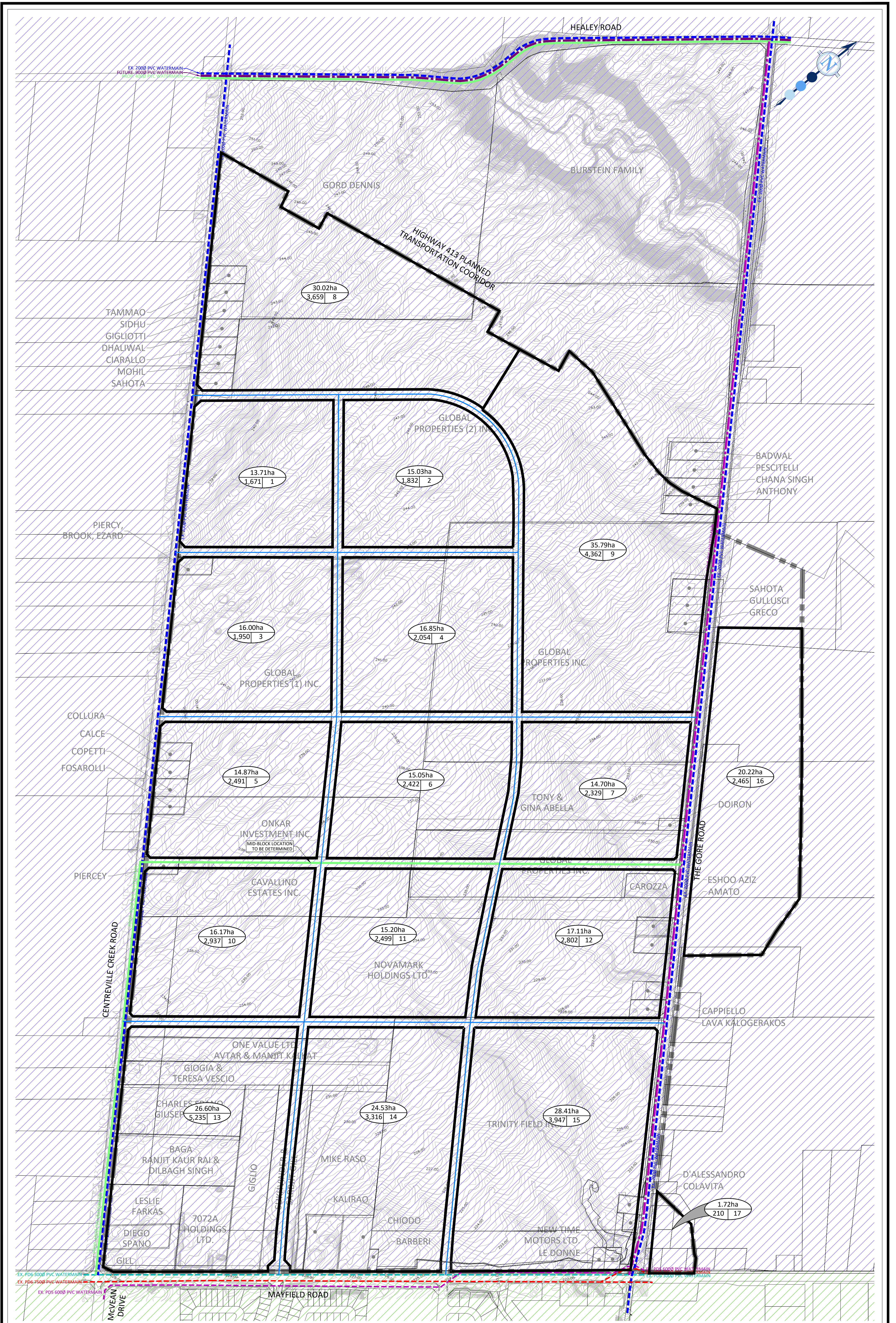
DESIGNED BY: A.T. CHECKED BY: A.R.K.
SCALE: 1:4000 DATE: DECEMBER 2024

PROPOSED SANITARY DRAINAGE PLAN

PROJECT No: 2630 FIGURE No: 2



30 CENTURIAN DRIVE, SUITE 100
MARKHAM, ONTARIO L3R 8B8
TEL: (905) 475-1900
FAX: (905) 475-8335



*NOTE: LAYOUT IS SCHEMATIC ONLY, DETAILS TO BE PROVIDED AT DETAILED DESIGN STAGE

LEGEND:

- WILDFIELD VILLAGE SECONDARY PLAN (WVSP) AREA LIMITS
- PROPOSED LOCAL DISTRIBUTION WATERMAIN
- 400Ø PROPOSED DISTRIBUTION WATERMAIN
- 600Ø FUTURE DISTRIBUTION WATERMAIN
- 900Ø FUTURE TRANSMISSION WATERMAIN
- 200Ø EXISTING WATERMAIN
- 300Ø EXISTING WATERMAIN
- 600Ø EXISTING WATERMAIN
- 750Ø EXISTING WATERMAIN
- APPROXIMATE EXTENT OF PRESSURE ZONE 5 (182.4 - 236.2m)
- APPROXIMATE EXTENT OF PRESSURE ZONE 6E (214.5 - 259.1m)
- DRAINAGE AREA (HECTARES)

28.99ha
3878 | 15

WILDFIELD VILLAGE

DESIGNED BY: A.T. CHECKED BY: A.R.K.
SCALE: 1:4000 DATE: DECEMBER 2024

MASTER WATER SERVICING PLAN

PROJECT No: 2630 FIGURE No: 3

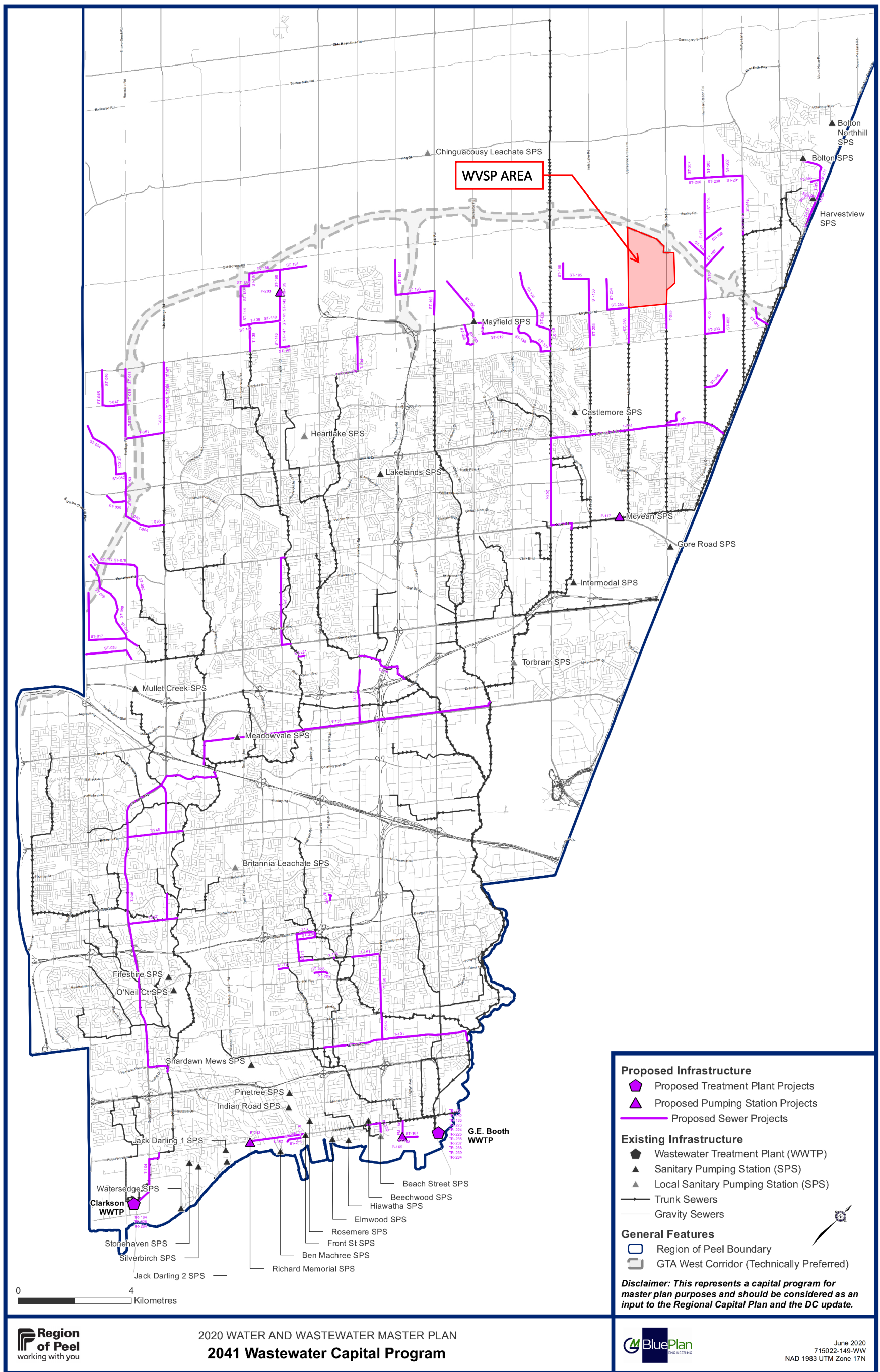


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ATTACHMENT A

REGION OF PEEL DOCUMENTS





Document Path: W:\GTA\1500017\15022 - Region of Peel W WW MPO\3_GIS\15022-149-WW-2041 Wastewater Capital Plan - Scenario 16 Total (MSP) V2.mxd

Figure 36 – Preferred wastewater servicing strategy capital program for the lake-based system.

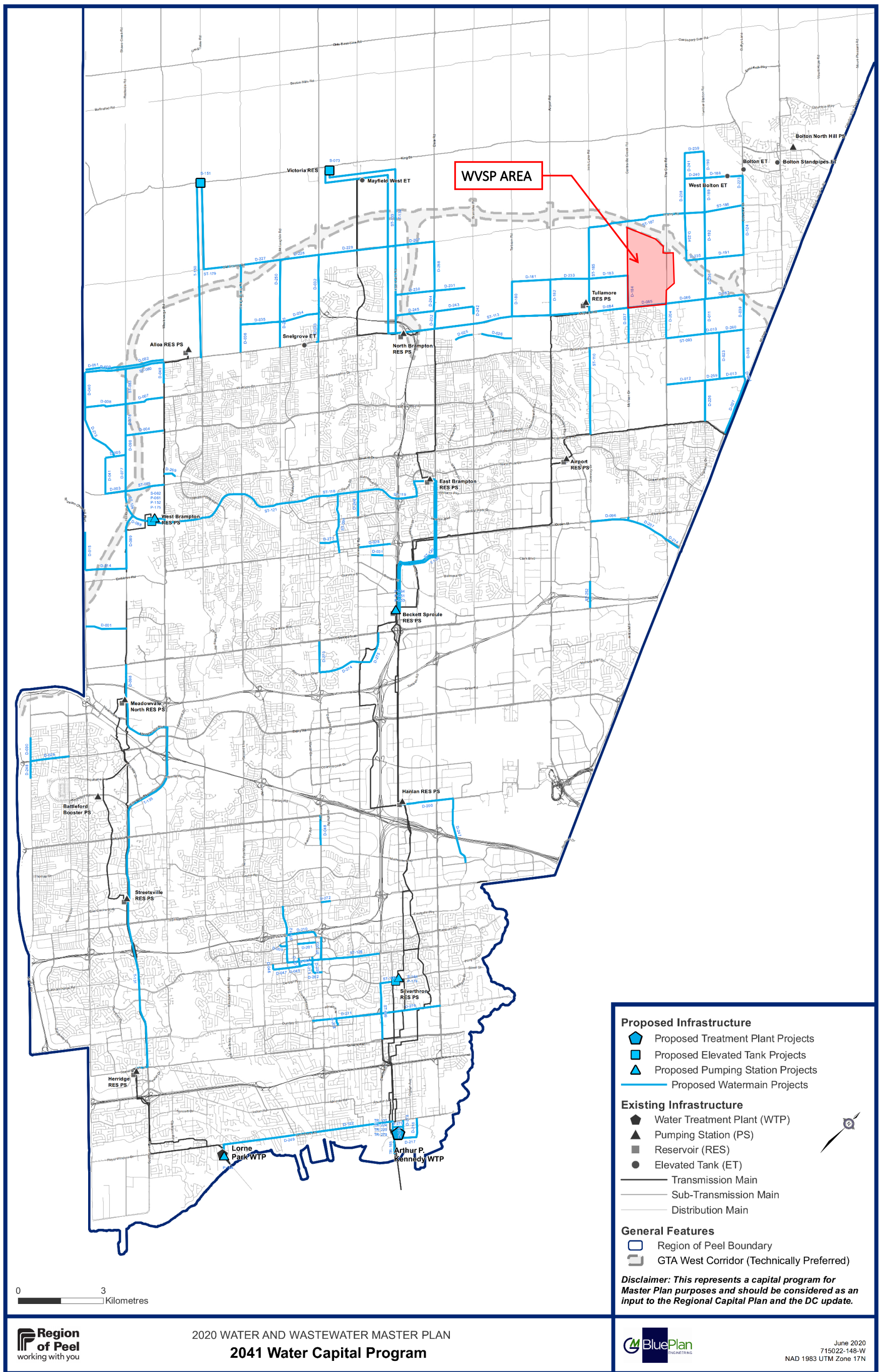


Figure 25 – Preferred water servicing strategy capital program for the lake-based system.

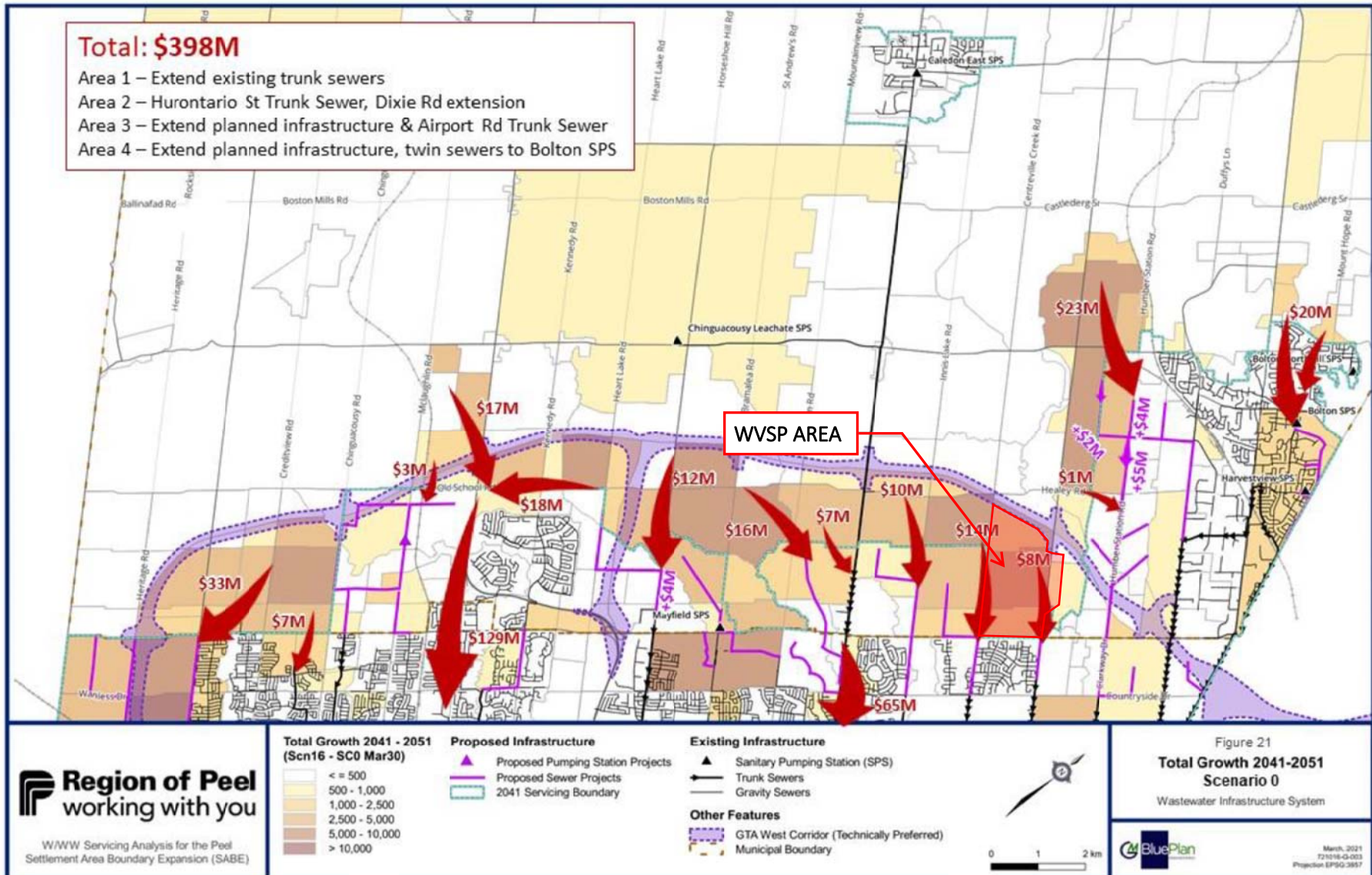


Figure 21 – Scenario 0 Wastewater Infrastructure Requirements

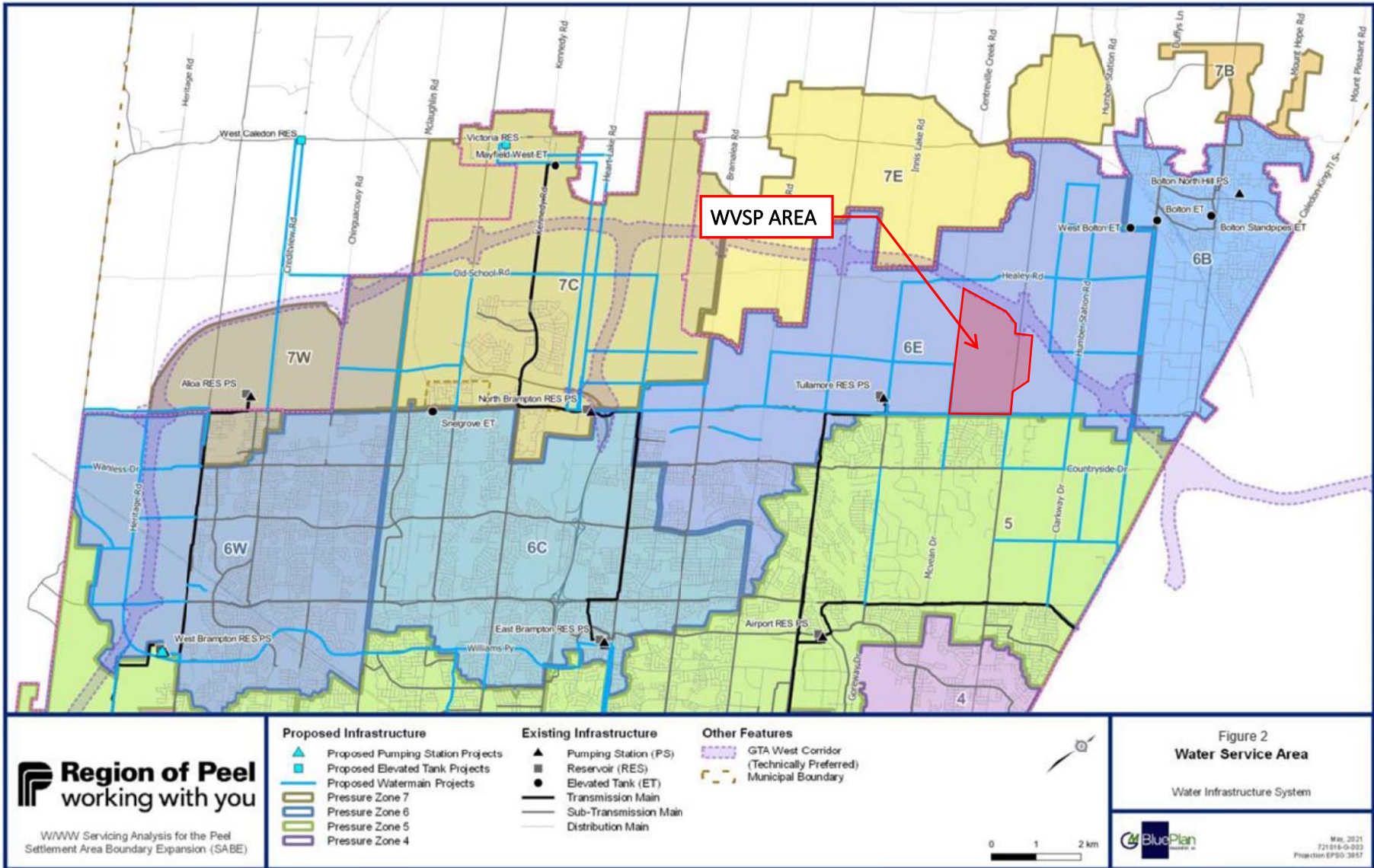


Figure 2 - SABA Water Service Areas and Pressure Zones

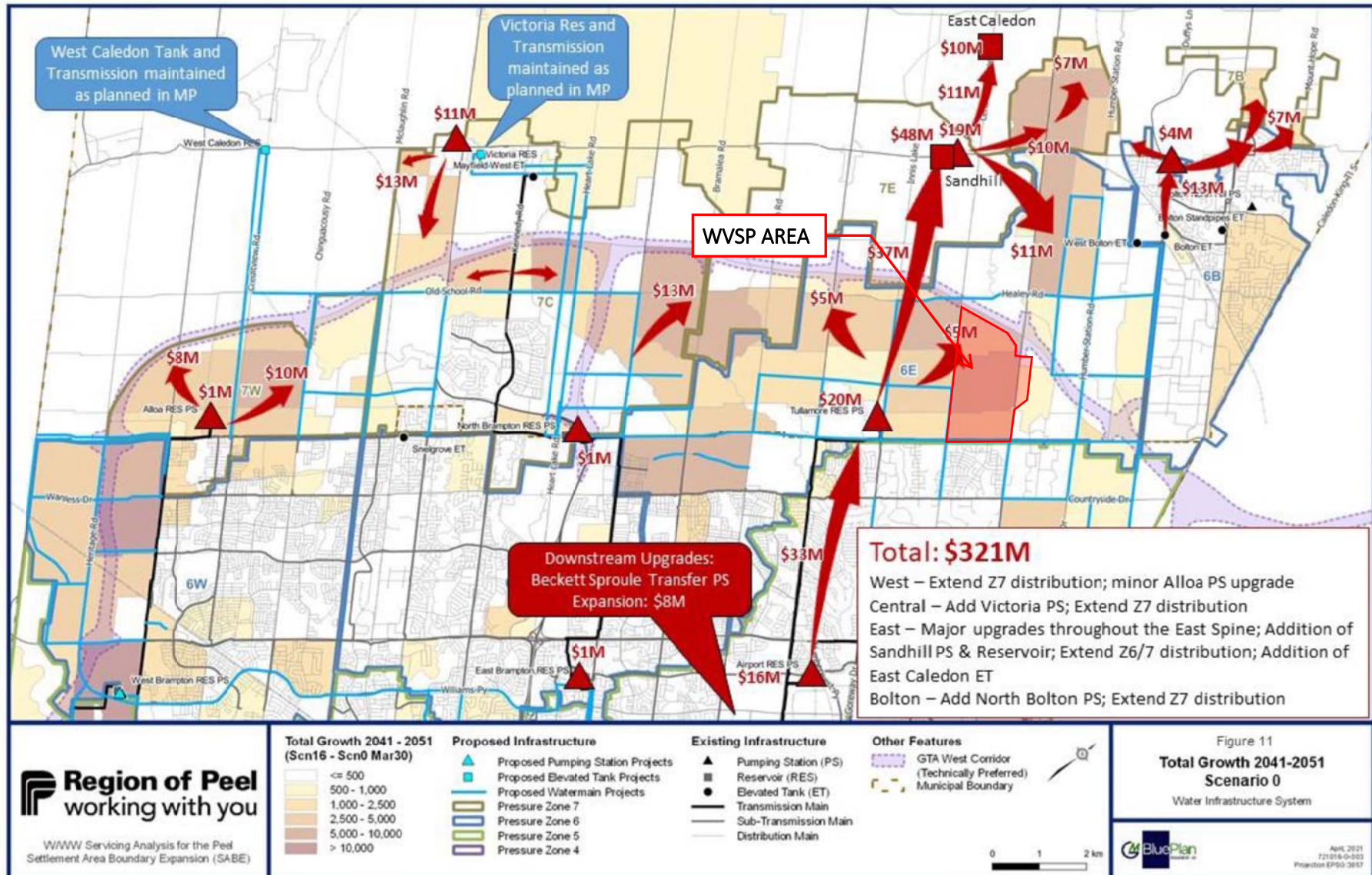


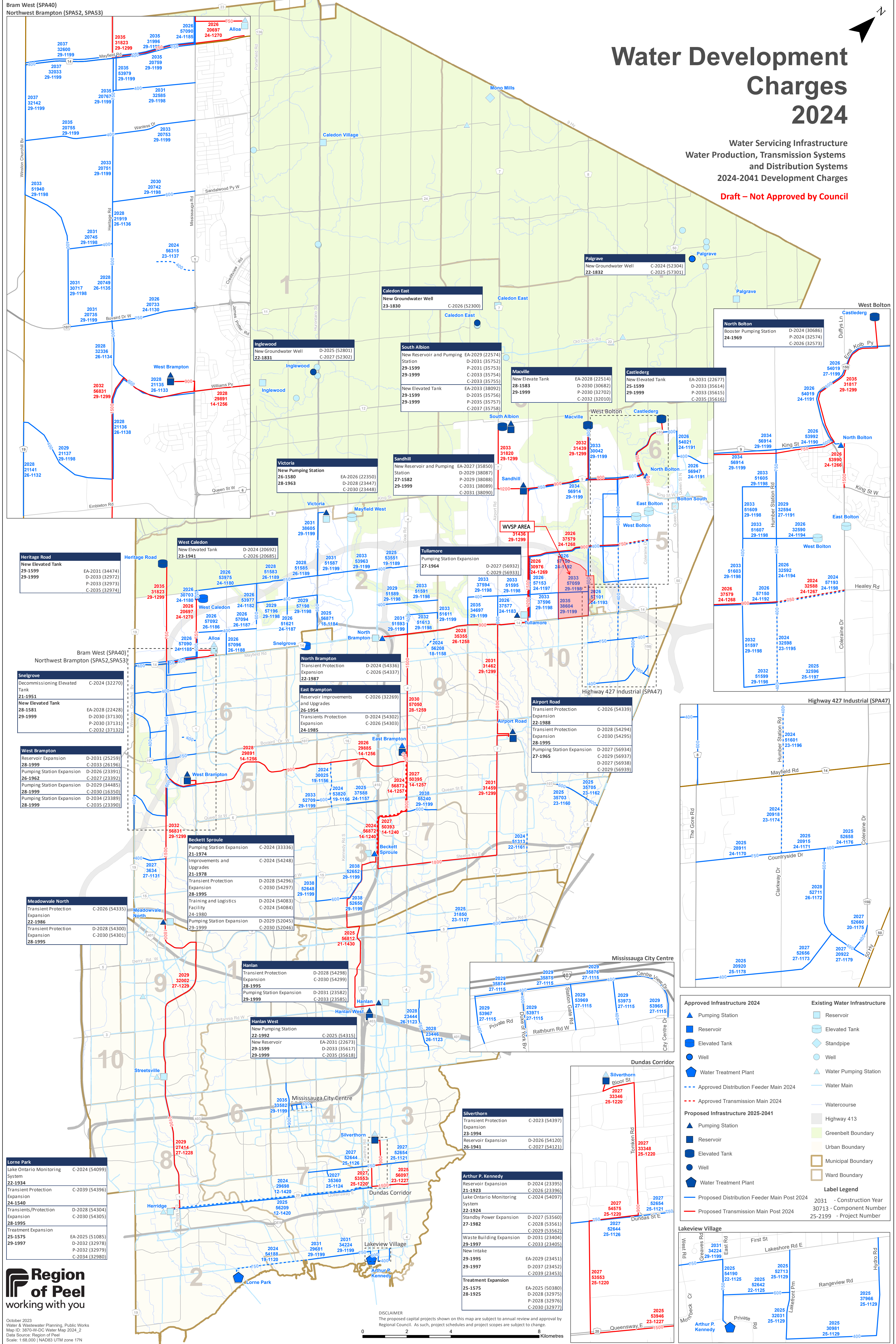
Figure 11 – Scenario 0 Water Infrastructure Requirements

Bram West (SPA40)
Northwest Brampton (SPA52, SPA53)

Water Development Charges 2024

Water Servicing Infrastructure
Water Production, Transmission Systems
and Distribution Systems
2024-2041 Development Charges

Draft – Not Approved by Council



Heritage Road

New Elevated Tank	EA-2031 (34474)
29-1599	D-2033 (32972)
29-1999	P-2033 (32973)
29-1999	C-2035 (32974)

West Caledon

New Elevated Tank	D-2024 (20692)
23-1941	C-2026 (20685)

West Brampton

Reservoir Expansion	D-2031 (25259)
28-1999	C-2033 (26196)
26-1962	D-2026 (23391)
28-1999	C-2027 (23392)
28-1999	D-2029 (34485)
28-1999	C-2030 (16350)
28-1999	D-2034 (23389)
28-1999	C-2035 (23390)

Beckett Sproule

Pumping Station Expansion	C-2024 (33336)
21-1974	C-2024 (54248)
21-1978	C-2024 (54296)
28-1995	D-2028 (54296)
28-1995	C-2030 (54297)
28-1995	D-2024 (54083)
28-1995	C-2024 (54084)
28-1995	D-2029 (52045)
28-1995	C-2030 (52046)

Lorne Park

Lake Ontario Monitoring System	C-2024 (54099)
22-1934	C-2039 (54396)
24-1540	D-2028 (54304)
28-1995	D-2028 (54304)
28-1995	C-2030 (54305)
25-1575	EA-2025 (51085)
29-1997	D-2032 (32978)
29-1997	P-2032 (32979)
29-1997	C-2034 (32980)

West Caledon

New Elevated Tank	D-2024 (20692)
23-1941	C-2026 (20685)

West Caledon

New Elevated Tank	EA-2028 (22428)
28-1581	D-2030 (37130)
29-1999	P-2030 (37131)
29-1999	C-2032 (37132)

Beckett Sproule

Pumping Station Expansion	C-2024 (33336)
21-1974	C-2024 (54248)
21-1978	C-2024 (54296)
28-1995	D-2028 (54296)
28-1995	C-2030 (54297)
28-1995	D-2024 (54083)
28-1995	C-2024 (54084)
28-1995	D-2029 (52045)
28-1995	C-2030 (52046)

Hanlan

Transient Protection Expansion	D-2028 (54298)
28-1995	C-2030 (54299)
28-1995	D-2031 (23582)
29-1999	C-2033 (23585)

Hanlan West

New Pumping Station	D-2024 (54336)
22-1992	C-2026 (54337)
28-1995	EA-2028 (22428)
29-1599	D-2030 (37130)
29-1999	P-2030 (37131)
29-1999	C-2035 (37132)

Lorne Park

Lake Ontario Monitoring System	C-2024 (54099)
22-1934	C-2039 (54396)
24-1540	D-2028 (54304)
28-1995	D-2028 (54304)
28-1995	C-2030 (54305)
25-1575	EA-2025 (51085)
29-1997	D-2032 (32978)
29-1997	P-2032 (32979)
29-1997	C-2034 (32980)

North Brampton

Transient Protection Expansion	D-2024 (54336)
22-1992	C-2026 (54337)

East Brampton

Reservoir Improvements and Upgrades	C-2026 (32269)
26-1954	D-2024 (54302)
24-1985	C-2026 (54303)

Beckett Sproule

Pumping Station Expansion	C-2024 (33336)
21-1974	C-2024 (54248)
21-1978	C-2024 (54296)
28-1995	D-2028 (54296)
28-1995	C-2030 (54297)
28-1995	D-2024 (54083)
28-1995	C-2024 (54084)
28-1995	D-2029 (52045)
28-1995	C-2030 (52046)

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28-1995	C-2030 (54299)
28-1995	D-2031 (23582)
29-1999	C-2033 (23585)

Hanlan West

New Pumping Station	D-2024 (54336)
22-1992	C-2026 (54337)
28-1995	EA-2031 (22673)
29-1599	D-2033 (35617)
29-1999	C-2035 (35618)

Lorne Park

Lake Ontario Monitoring System	C-2024 (54099)
22-1934	C-2039 (54396)
24-1540	D-2028 (54304)
28-1995	D-2028 (54304)
28-1995	C-2030 (54305)
25-1575	EA-2025 (51085)
29-1997	D-2032 (32978)
29-1997	P-2032 (32979)
29-1997	C-2034 (32980)

West Caledon

New Elevated Tank	D-2024 (20692)
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New Elevated Tank	EA-2028 (22428)
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28-1995	D-2028 (54304)
28-1995	C-2030 (54305)
25-1575	EA-2025 (51085)
29-1997	D-2032 (32978)
29-1997	P-2032 (32979)
29-1997	C-2034 (32980)

North Brampton

Transient Protection Expansion	D-2024 (54336)
22-1992	C-2026 (54337)

East Brampton

Reservoir Improvements and Upgrades	C-2026 (32269)
26-1954	D-2024 (54302)
24-1985	C-2026 (54303)

Beckett Sproule

Pumping Station Expansion	C-2024 (33336)
21-1974	C-2024 (54248)
21-1978	C-2024 (54296)
28-1995	D-2028 (54296)
28-1995	C-2030 (54297)
28-1995	D-2024 (54083)
28-1995	C-2024 (54084)
28-1995	D-2029 (52045)
28-1995	C-2030 (52046)

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28-1995	D-2028 (54304)
28-1995	C-2030 (54305)
25-1575	EA-2025 (51085)
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29-1997	P-2032 (32979)
29-1997	C-2034 (32980)

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28-1995	D-2028 (54296)
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28-1995	D-2028 (54304)
28-1995	C-2030 (54305)
25-1575	EA-2025 (51085)
29-1997	D-2032 (32978)
29-1997	P-2032 (32979)
29-1997	C-2034 (32980)

Approved Infrastructure 2024

- Pumping Station
- Reservoir
- Elevated Tank
- Well
- Water Treatment Plant
- Approved Distribution Feeder Main 2024
- Approved Transmission Main 2024

Existing Water Infrastructure

- Reservoir
- Elevated Tank
- Standpipe
- Well
- Water Pumping Station
- Water Main
- Watercourse
- Highway 413
- Greenbelt Boundary
- Urban Boundary
- Municipal Boundary
- Ward Boundary

Proposed Infrastructure 2025-2041

- Pumping Station
- Reservoir
- Elevated Tank
- Well
- Water Treatment Plant
- Proposed Distribution Feeder Main Post 2024
- Proposed Transmission Main Post 2024

Label Legend

- 3031 - Construction Year
- 30713 - Component Number
- 25-2199 - Project Number



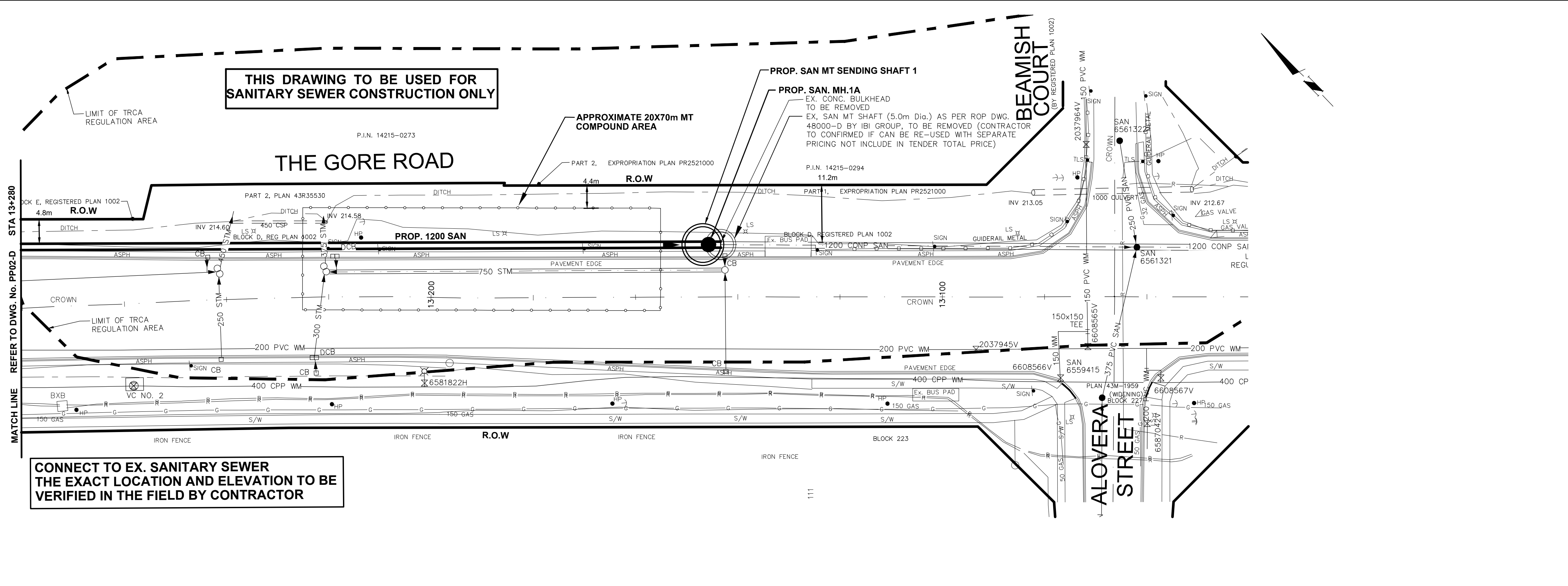
October 2023
Water & Wastewater Planning, Public Works
Map ID: 3870-W-DC Water Map 2024_2
Data Source: Region of Peel
Scale: 1:68,000 | NAD83 UTM zone 17N

DISCLAIMER
The proposed capital projects shown on this map are subject to annual review and approval by Regional Council. As such, project schedules and project scopes are subject to change.

ATTACHMENT B

DETAILED DESIGN DRAWINGS





SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATER MAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	N.L.

- NOTES:**
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 - FOR SHAFT COMPOUNDS DETAILS AND TEMPORARY WORK TO MAINTAIN LOCAL TRAFFIC ONLY, REFER TO DRAWINGS TCI-D TO TCI-D.
 - FOR TREE REMOVALS/PROTECTION REFER TO RM1-D TO RM4-D

LEGEND:

- DENOTES SANITARY MANHOLE
- DENOTES STORM MANHOLE
- □ DENOTES SINGLE/DOUBLE CATCHBASIN
- SANITARY SEWER PROPOSED
- 1200 CPP SAN
- SANITARY SEWER EXISTING
- DENOTES PROPOSED WATERMAIN
- DENOTES EXISTING WATERMAIN
- DENOTES EXISTING STORM SEWER
- DENOTES ROGERS
- DENOTES EXISTING GAS MAIN
- DENOTES EXISTING AERIAL CABLES
- DENOTES LIMIT OF TRCA REGULATION AREA

General Notes

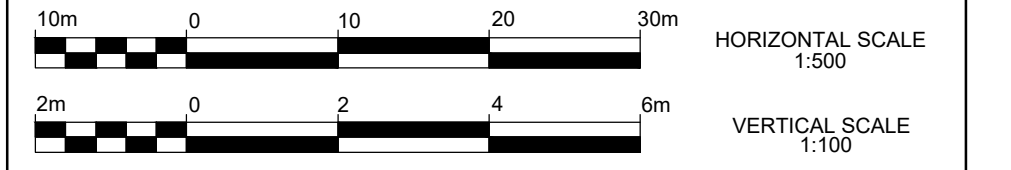
All Measurements Are In Meters(m) Unless Otherwise Noted
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 All Water And Sanitary Service Locations Are Approximate
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 All Horizontal And Vertical Bends Are In Degrees

Agency: B.M. No. 44
 Elev. 227.660 (Geodetic)
 Coordinate System: UTM NAD83 (Original)
 The Contractor Is Responsible For Locating
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 And During Construction. Location Of
 Existing Utilities Approximate Only.
 To Be Verified In Field By Contractor.

DESIGNED BY: H. SARKISIAN
 REGISTERED PROFESSIONAL ENGINEER
 PROVINCE OF ONTARIO
 SEPT. 16, 2007

Checked by: _____ Approved by: _____

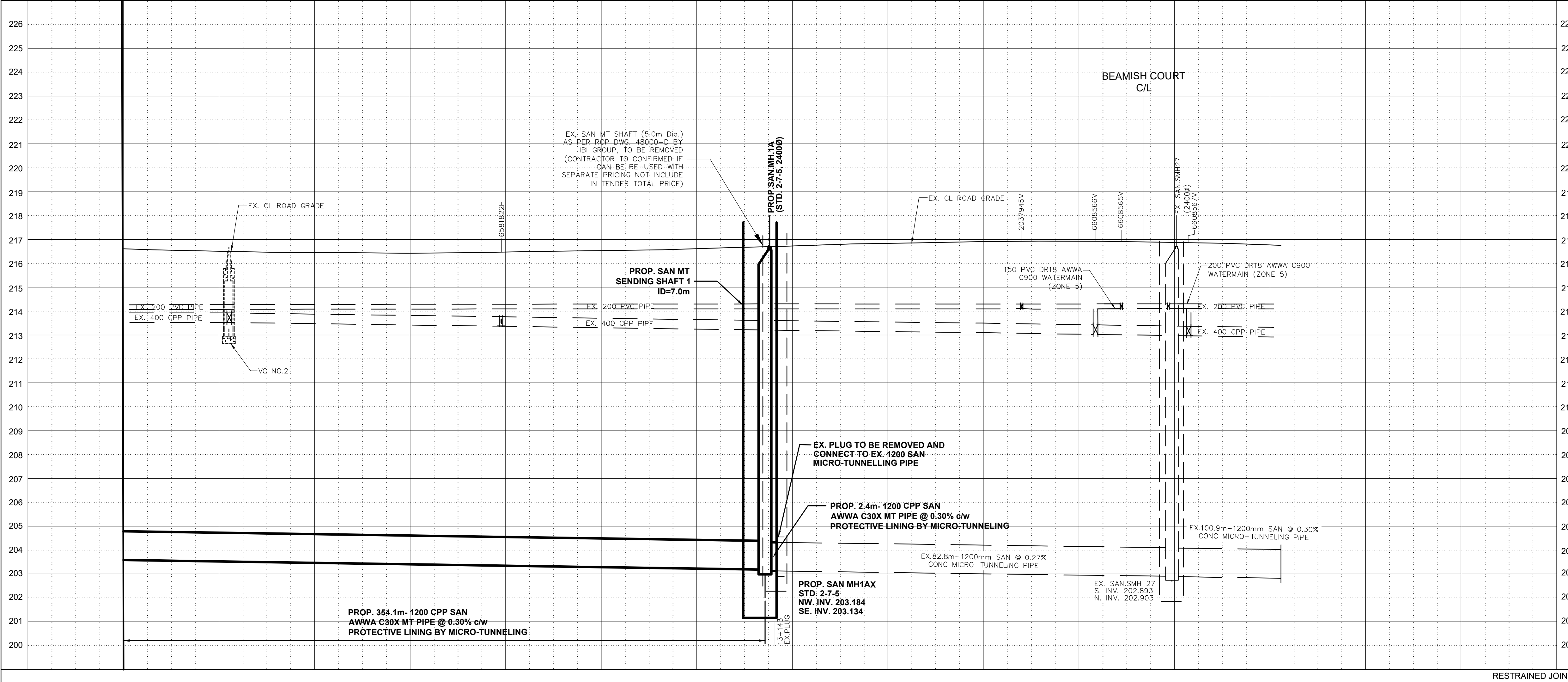
- NOTICE TO CONTRACTOR**
 48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING
- | | |
|---|---------------------------------------|
| THE REGIONAL MUNICIPALITY OF PEEL | CABLE TELEVISION/FIBROPTIC PROVIDERS: |
| CITY OF MISSISSAUGA WORKS DEPT. | BELL CANADA |
| CITY OF BRAMPTON WORKS DEPT. | ENERSOURCE TELECOM |
| TOWN OF CALEDON WORKS DEPT. | HYDRO ONE TELECOM |
| ENBRIDGE INCORPORATED-GAS DISTRIBUTION | ROGERS CABLE |
| ONTARIO MINISTRY OF TRANSPORTATION | ALLSTREAM (ZAYO) |
| ONTARIO CLEAN WATER AGENCY | PSN (PUBLIC SECTOR NETWORK) |
| HYDRO ONE NETWORKS | FUTUREWAY (FCI BROADBAND) |
| ALECTRA UTILITIES | GT FIBER/360 NETWORK INC. |
| TRANS NORTHERN PIPELINE | TELUS COMMUNICATION |
| PEARSON INTERNATIONAL FUEL FACILITIES CORP. | |
| UNION GAS | |



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 Tel: (905) 738-6100
 Fax: (905) 738-6875
 E-mail: design@schaeffers.com



THE GORE ROAD
 (FROM COUNTRYSIDE DRIVE TO MAYFIELD ROAD)
PROP. 1200mm SANITARY SEWER
 STA. 13+020 TO STA. 13+280



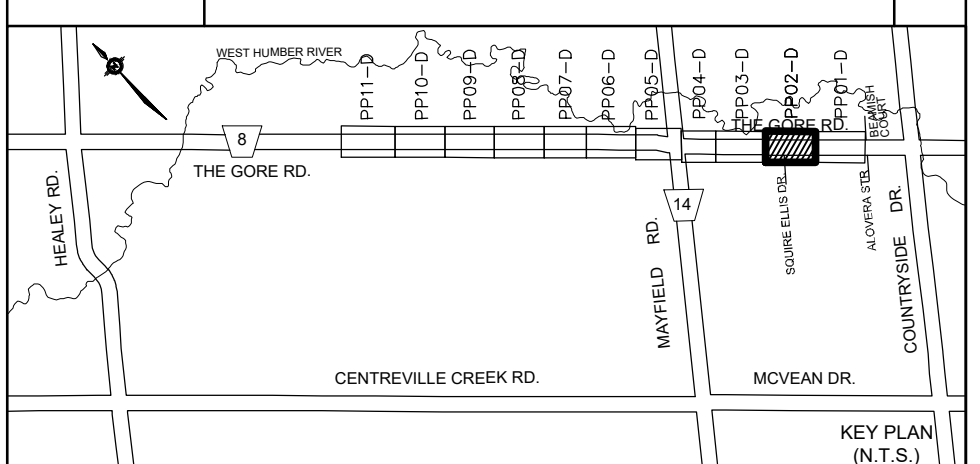
STATION	216.61	216.51	216.45	216.43	216.48	216.54	216.62	216.73	216.84	216.91	216.93	216.87	216.77
BOT. EL. OF WM.													
EX. ROAD ELEV.													
ROAD CHAINAGE	13+280	13+260	13+240	13+220	13+200	13+180	13+160	13+140	13+120	13+100	13+080	13+060	13+040

CAD Area	X-XX	Area	X-XX	Project No.	242273/241193
Checked by	N.L.	Drawn by	A.L.	Date	JULY 2024
Sheet	4 of 31	Plan No.	PP01-D		

**THIS DRAWING TO BE USED FOR
SANITARY SEWER CONSTRUCTION ONLY**

SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATERMAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	N.L.



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- DENOTES STORM MANHOLE
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- SANITARY SEWER EXISTING
- DENOTES PROPOSED WATERMAIN
- DENOTES EXISTING WATERMAIN
- DENOTES EXISTING STORM SEWER
- DENOTES ROGERS
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General Notes

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Agency: B.M. No. 44
 Elev. 227.690 (Geodetic)
 Coordinate System: UTM NAD83 (Original)

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Designed by: *[Signature]* Chkd. _____ Approved by _____

NOTICE TO CONTRACTOR
 48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

THE REGIONAL MUNICIPALITY OF PEEL	CABLE TELEVISION/FIBROPTIC PROVIDERS:
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CITY OF BRAMPTON WORKS DEPT.	ENERSOURCE TELECOM
TOWN OF CALEDON WORKS DEPT.	HYDRO ONE TELECOM
ENBRIDGE INCORPORATED-GAS DISTRIBUTION	ROGERS CABLE
ONTARIO MINISTRY OF TRANSPORTATION	ALLSTREAM (ZAYO)
ONTARIO CLEAN WATER AGENCY	PSN (PUBLIC SECTOR NETWORK)
HYDRO ONE NETWORKS	FUTUREWAY (FCI BROADBAND)
ALECTRA UTILITIES	GT FIBER/360 NETWORK INC.
TRANS NORTHERN PIPELINE	TELUS COMMUNICATION
PEARSON INTERNATIONAL FUEL FACILITIES CORP.	
UNION GAS	

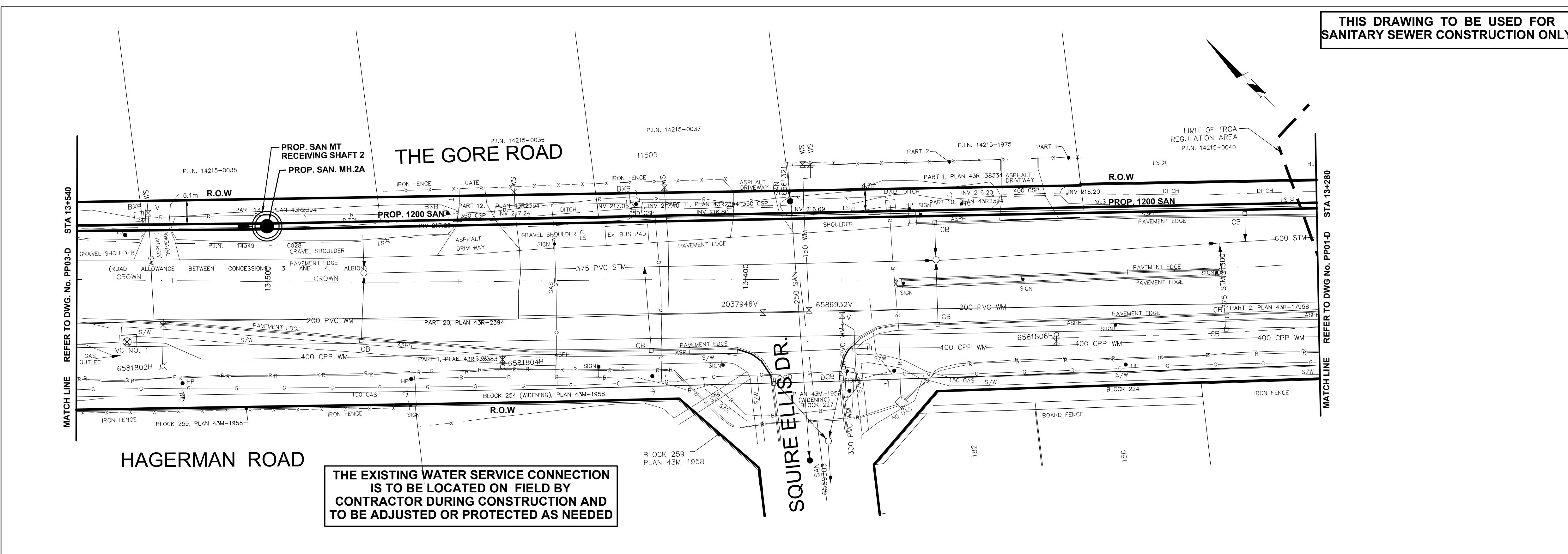
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CONSULTING ENGINEERS

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 E-mail: design@schaeffers.com

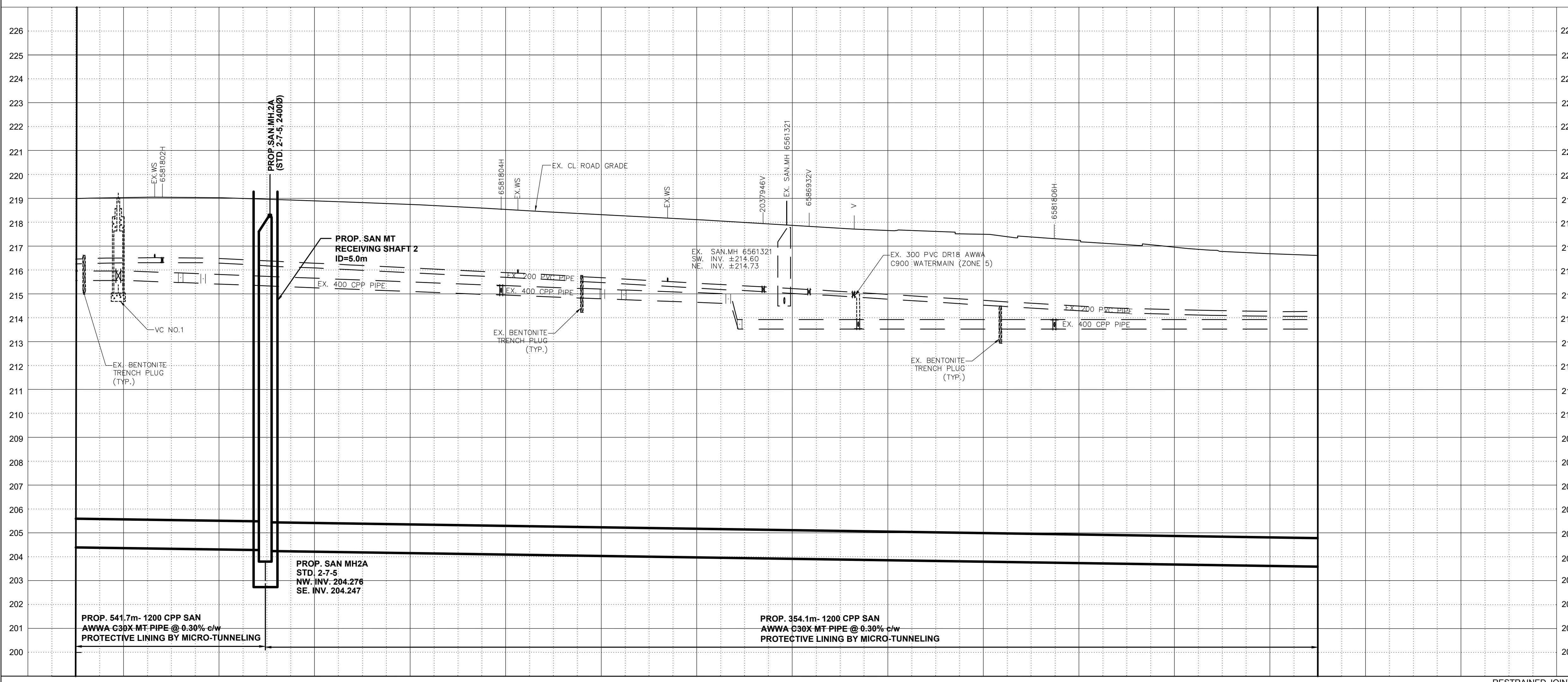
Region of Peel
working with you

THE GORE ROAD
 (FROM COUNTRYSIDE DRIVE TO MAYFIELD ROAD)
 PROP. 1200mm SANITARY SEWER
 STA. 13+280 TO STA. 13+540

Project No.	242273/241193
Drawn by	A.L.
Sheet	5 of 31
Plan No.	PP02-D

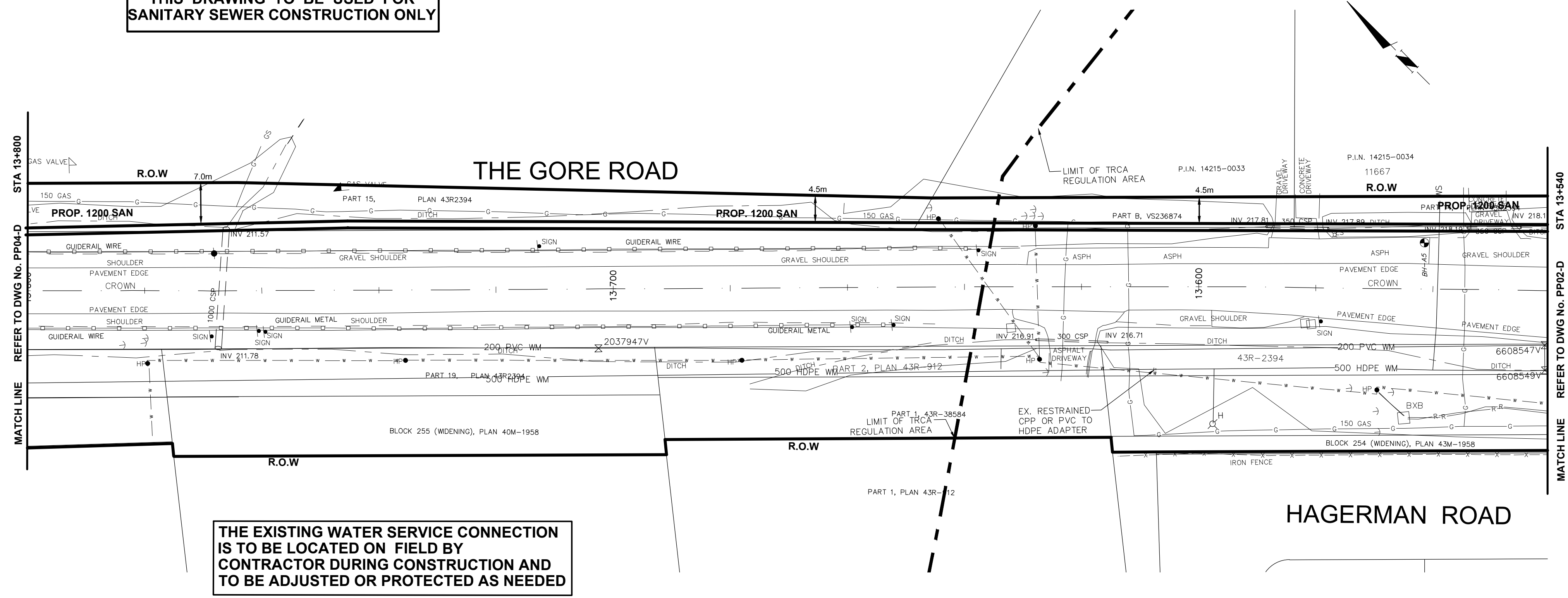


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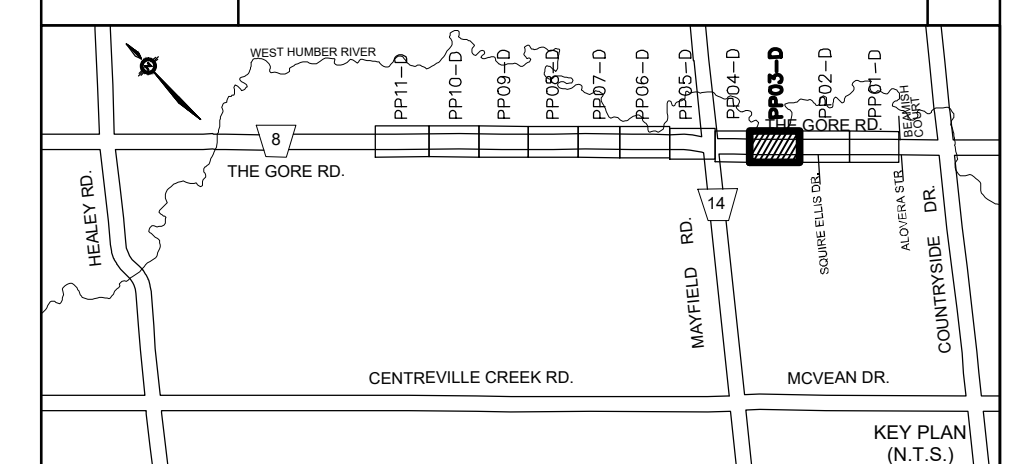
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BOT. EL. OF WM.														
EX. ROAD ELEV.														
ROAD CHAINAGE	13+540	13+520	13+500	13+480	13+460	13+440	13+420	13+400	13+380	13+360	13+340	13+320	13+300	13+280

THIS DRAWING TO BE USED FOR
SANITARY SEWER CONSTRUCTION ONLY



SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATER MAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	N.L.



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 - FOR TREE REMOVALS/PROTECTION REFER TO RM1-D TO RM4-D.

LEGEND:

- DENOTES SANITARY MANHOLE
- DENOTES STORM MANHOLE
- □ DENOTES SINGLE/DOUBLE CATCHBASIN
- SANITARY SEWER PROPOSED
- SANITARY SEWER EXISTING
- DENOTES PROPOSED WATERMAIN
- DENOTES EXISTING WATERMAIN
- DENOTES EXISTING STORM SEWER
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- DENOTES EXISTING GAS MAIN
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 To Be Verified In Field By Contractor.

DESIGNED BY: H. SARKISIAN, PROFESSIONAL ENGINEER, REG. NO. 4010, PROVINCE OF ONTARIO, SEP 16, 2023

Checked by: _____ Approved by: _____

NOTICE TO CONTRACTOR
 48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

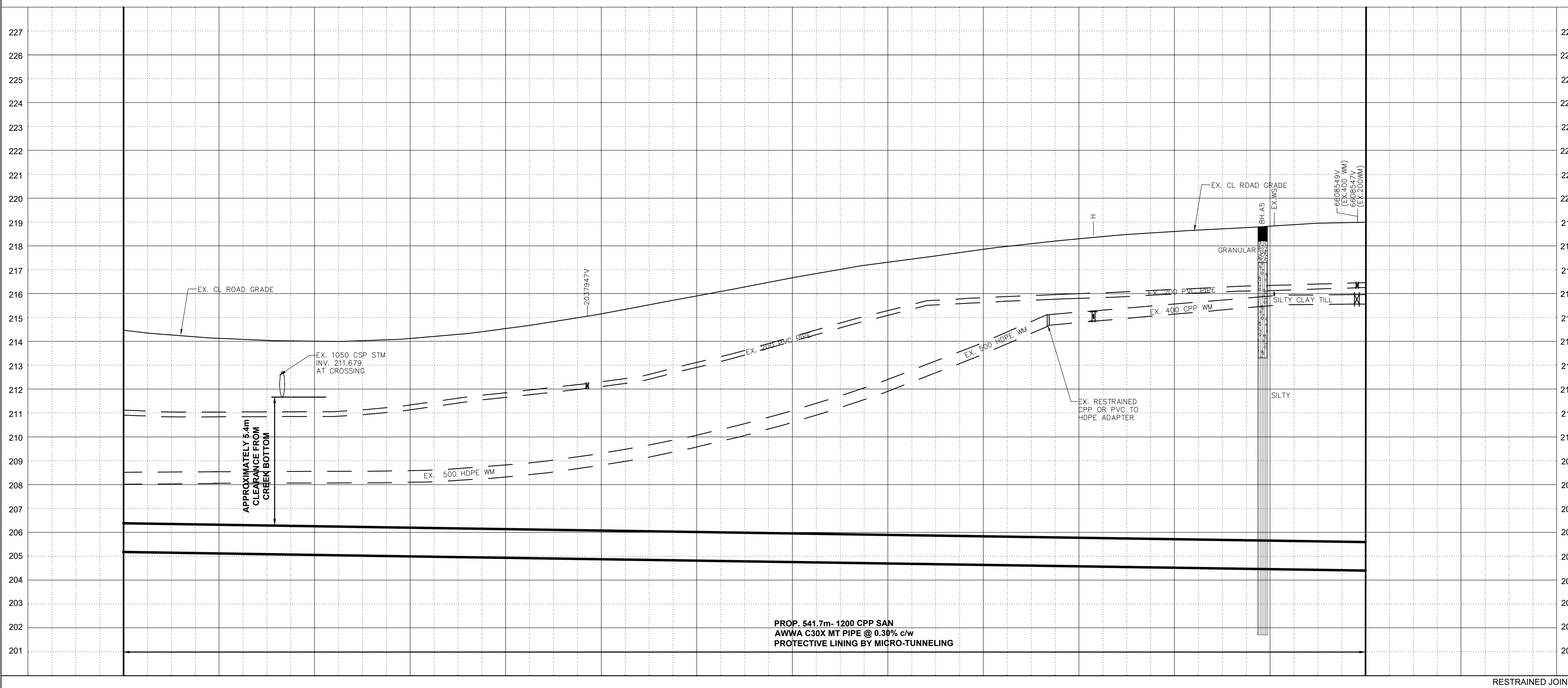
THE REGIONAL MUNICIPALITY OF PEEL	CABLE TELEVISION/FIBEROPTIC PROVIDERS:
CITY OF MISSISSAUGA WORKS DEPT.	BELL CANADA
CITY OF BRAMPTON WORKS DEPT.	ENERSOURCE TELECOM
TOWN OF CALEDON WORKS DEPT.	HYDRO ONE TELECOM
ENBRIDGE INCORPORATED-GAS DISTRIBUTION	ROGERS CABLE
ONTARIO MINISTRY OF TRANSPORTATION	ALLSTREAM (ZAYO)
ONTARIO CLEAN WATER AGENCY	PSN (PUBLIC SECTOR NETWORK)
HYDRO ONE NETWORKS	FUTUREWAY (FCI BROADBAND)
ALECTRA UTILITIES	GT FIBER/360 NETWORK INC.
TRANS NORTHERN PIPELINE	TELUS COMMUNICATION
PEARSON INTERNATIONAL FUEL FACILITIES CORP.	
UNION GAS	

10m 0 10 20 30m HORIZONTAL SCALE 1:500
 2m 0 2 4 6m VERTICAL SCALE 1:100

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 6 Ronrose Drive, Concord, Ontario L4K 4R3
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 Fax: (905) 738-6875
 E-mail: design@schaeffers.com

Region of Peel
 working with you

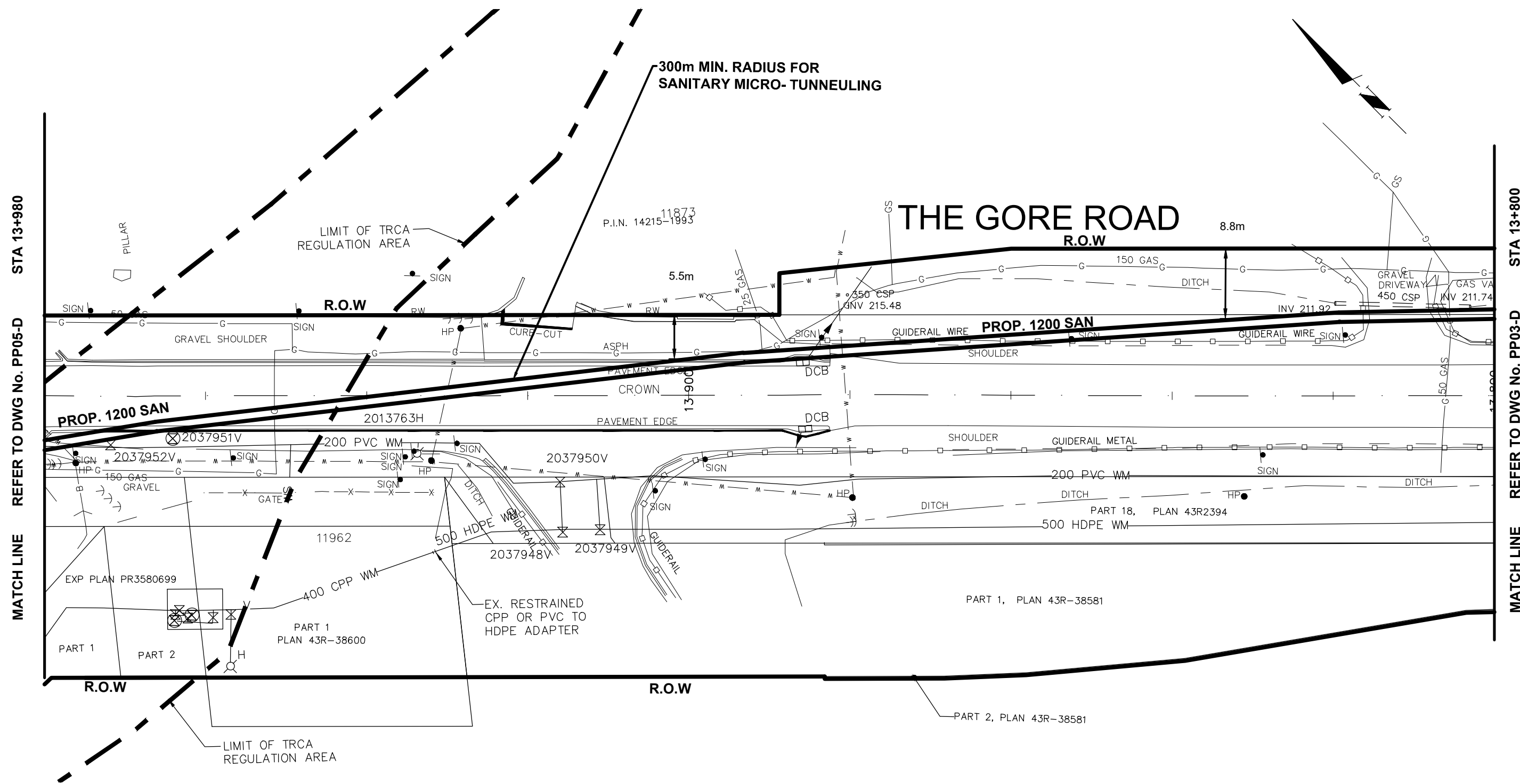
THE GORE ROAD
 (FROM COUNTRYSIDE DRIVE TO MAYFIELD ROAD)
 PROP. 1200mm SANITARY SEWER
 STA. 13+540 TO STA. 13+800



STATION	214.47	214.13	214.01	214.12	214.54	215.15	215.90	216.66	217.32	217.85	218.30	218.60	218.82	218.99
BOT. EL. OF WM														
EX. ROAD ELEV.														
ROAD CHAINAGE	13+800	13+780	13+760	13+740	13+720	13+700	13+680	13+660	13+640	13+620	13+600	13+580	13+560	13+540

CAD Area	X-XX	Area	X-XX	Project No.	242273/241193
Checked by	N.L.	Drawn by	A.L.	Date	JULY 2024
Sheet	6 of 31	Plan No.	PP03-D		

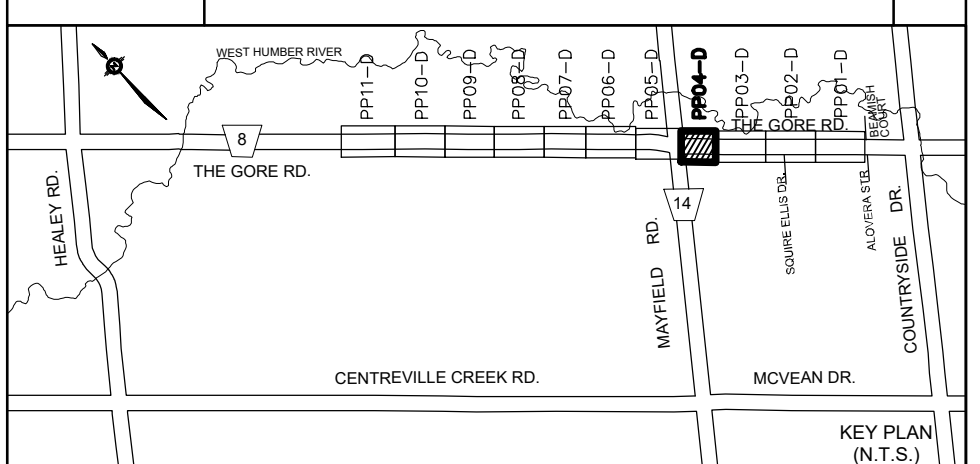
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SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
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STORM SEWERS			BELL U/G CABLE		
WATERMAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	N.L.



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- LEGEND:**
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 - □ DENOTES SINGLE/DOUBLE CATCHBASIN
 - SANITARY SEWER PROPOSED
 - SANITARY SEWER EXISTING
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Professional Engineer Seal for H. SARKISIAN, P. Eng., No. 20272, dated Sept. 16, 2023, Province of Ontario.

Designed by: _____
 Approved by: _____

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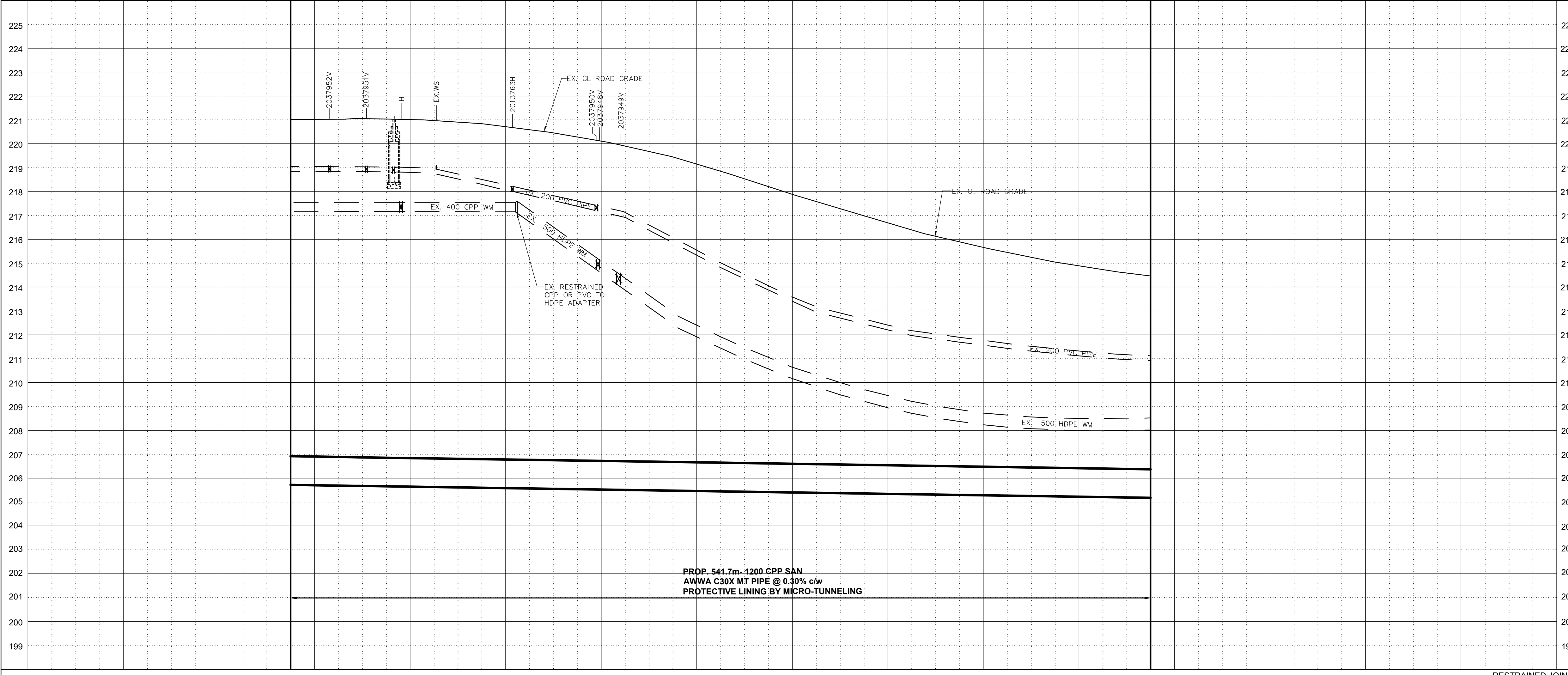
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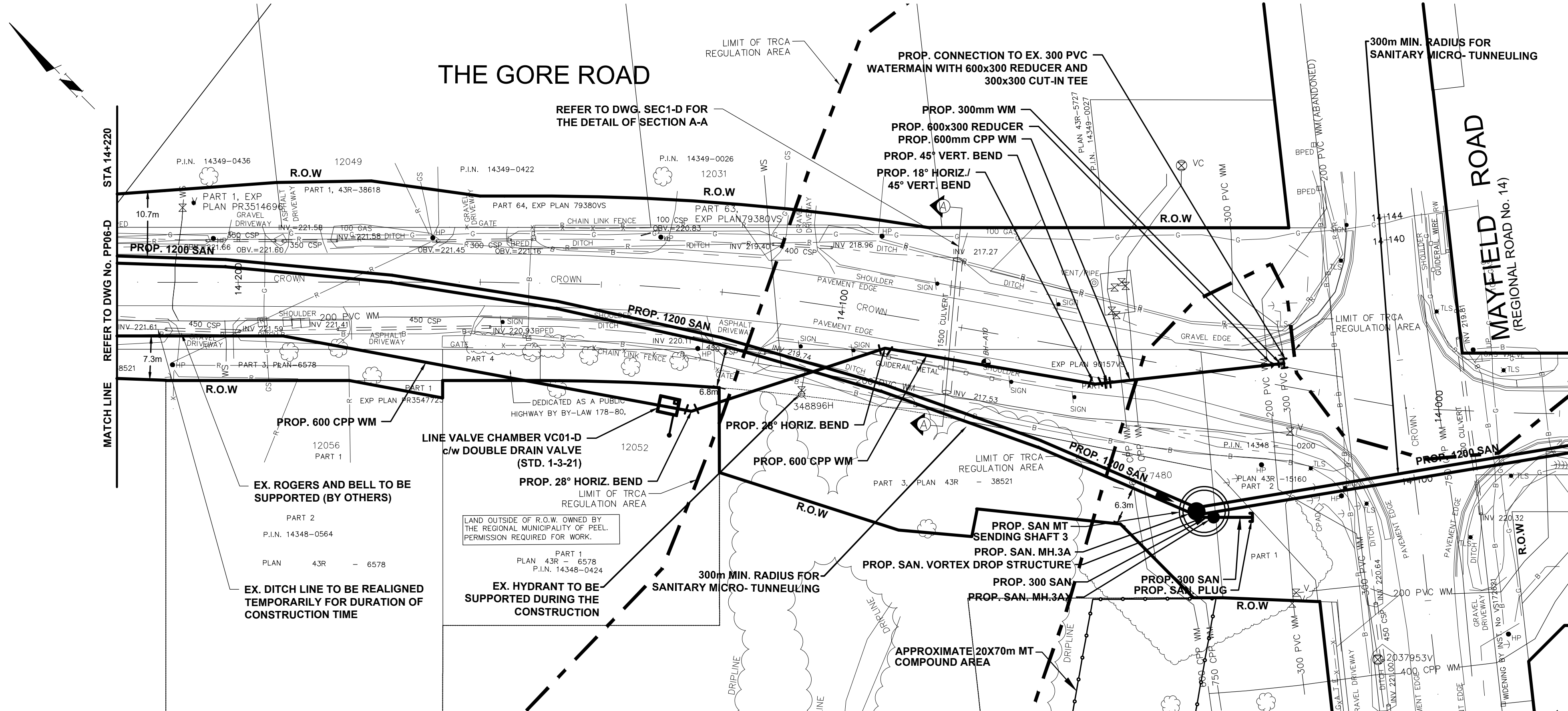
Region of Peel
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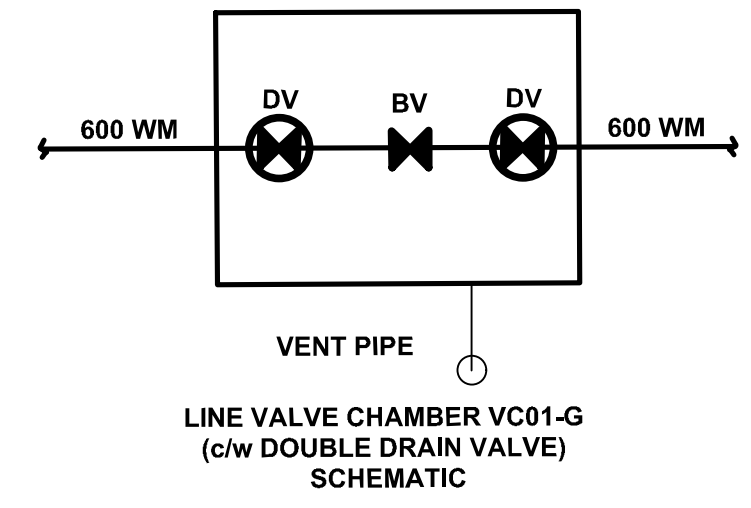
STATION	221.02	221.03	220.85	220.29	219.45	218.21	216.99	215.90	215.05	214.47
BOT. EL. OF WM.										
EX. ROAD ELEV.										
ROAD CHAINAGE	13+980	13+960	13+940	13+920	13+900	13+880	13+860	13+840	13+820	13+800

Project No.	242273/241193
Checked by	N.L.
Drawn by	A.L.
Date	JULY 2024
Sheet	7 of 31
Plan No.	PP04-D



THIS DRAWING TO BE USED FOR SANITARY SEWER AND WATERMAIN CONSTRUCTION ONLY

THE EXISTING WATER SERVICE CONNECTION IS TO BE LOCATED ON FIELD BY CONTRACTOR DURING CONSTRUCTION AND TO BE ADJUSTED OR PROTECTED AS NEEDED



SERVICE DATA					
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STORM SEWERS			BELL U/G CABLE		
WATERMANS			HYDRO U/G CABLE		
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PARKS & REC.			CTV		
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REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	N.L.

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- DENOTES SINGLE/DOUBLE CATCHBASIN
- SANITARY SEWER EXISTING
- SANITARY SEWER PROPOSED
- 200 PVC WM
- 300 STW
- 300 PVC WM
- 600 CPP WM
- 600 AWWA C30X CPP WM
- DENOTES EXISTING WATERMAIN
- DENOTES EXISTING STORM SEWER
- DENOTES ROGERS
- DENOTES EXISTING GAS MAIN
- DENOTES EXISTING AERIAL CABLES
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Agency: B.M. No. 44
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Designed by:

Approved by: _____

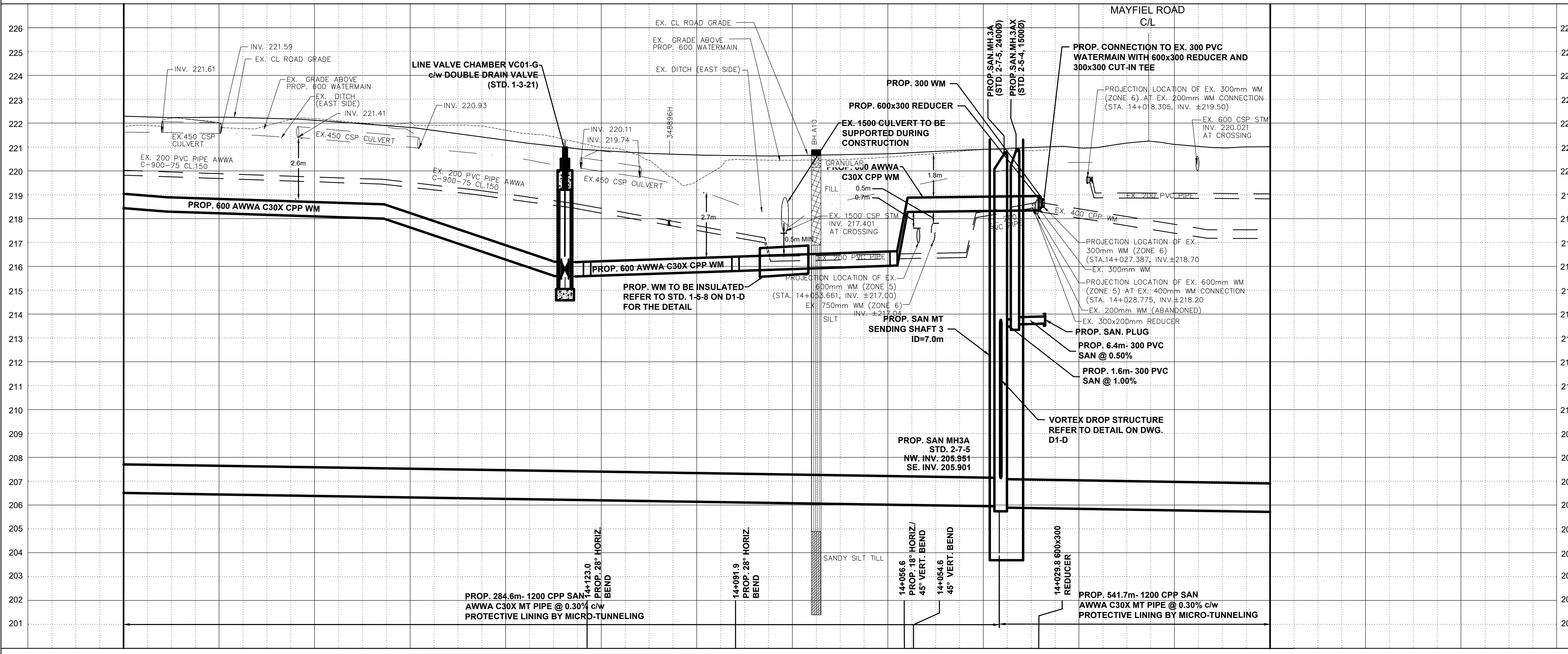
NOTICE TO CONTRACTOR
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THE REGIONAL MUNICIPALITY OF PEEL	CABLE TELEVISION/FIBEROPTIC PROVIDERS:
CITY OF MISSISSAUGA WORKS DEPT.	BELL CANADA
CITY OF BRAMPTON WORKS DEPT.	ENERSOURCE TELECOM
TOWN OF CALEDON WORKS DEPT.	HYDRO ONE TELECOM
ENBRIDGE INCORPORATED-GAS DISTRIBUTION	ROGERS CABLE
ONTARIO MINISTRY OF TRANSPORTATION	ALLSTREAM (ZAYO)
ONTARIO CLEAN WATER AGENCY	PSN (PUBLIC SECTOR NETWORK)
HYDRO ONE NETWORKS	FUTUREWAY (FCI BROADBAND)
ALECTRA UTILITIES	GT FIBER/360 NETWORK INC.
TRANS NORTHERN PIPELINE	TELUS COMMUNICATION
PEARSON INTERNATIONAL FUEL FACILITIES CORP.	
UNION GAS	

SCHAEFFERS CONSULTING ENGINEERS
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 Fax: (905) 738-6875
 E-mail: design@schaeffers.com

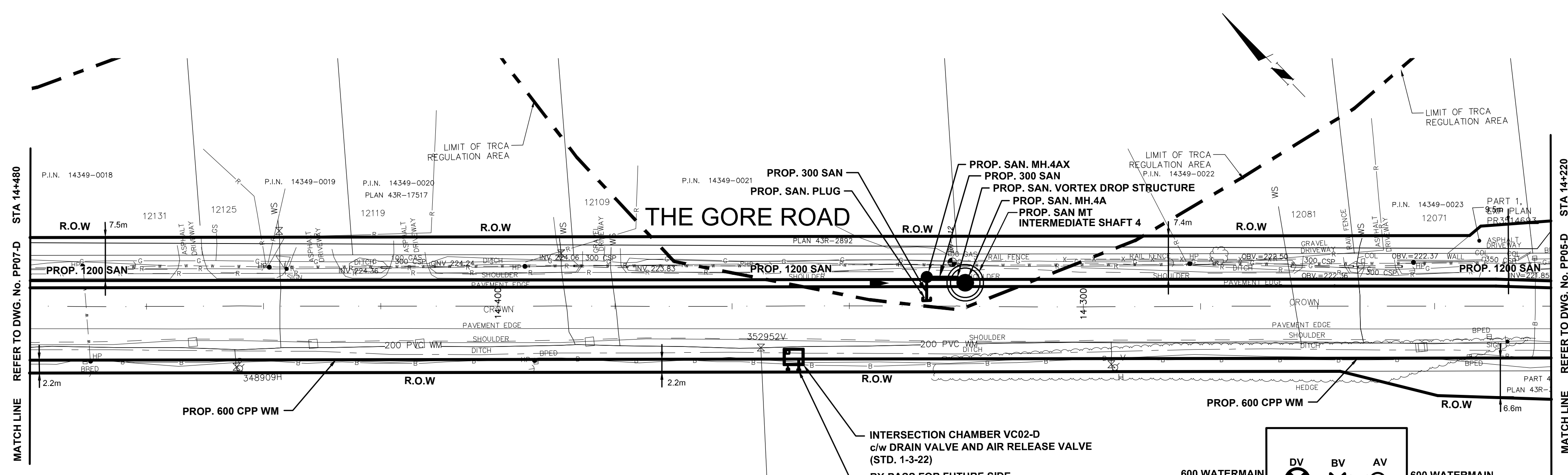
Region of Peel
 working with you

THE GORE ROAD
 (FROM MAYFIELD ROAD TO HEALEY ROAD)
 PROP. 1200mm SANITARY SEWER
 PROP. 600mm WATERMAIN
 STA. 13+980 TO STA. 14+220



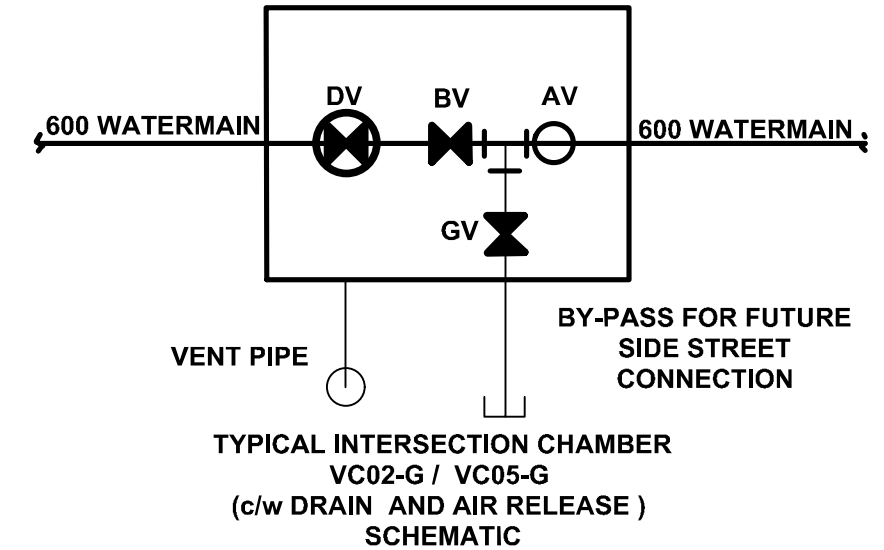
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14+220	14+200	14+180	14+160	14+140	14+120	14+100	14+080	14+060	14+040	14+020	14+000	13+980

CAD Area	X-XX	Area	X-XX	Project No.	242273/ 242274/ 241193
Checked by	N.L.	Drawn by	A.L.	Sheet	8 of 31
Date	JULY 2024	Plan No.	PP05-D		



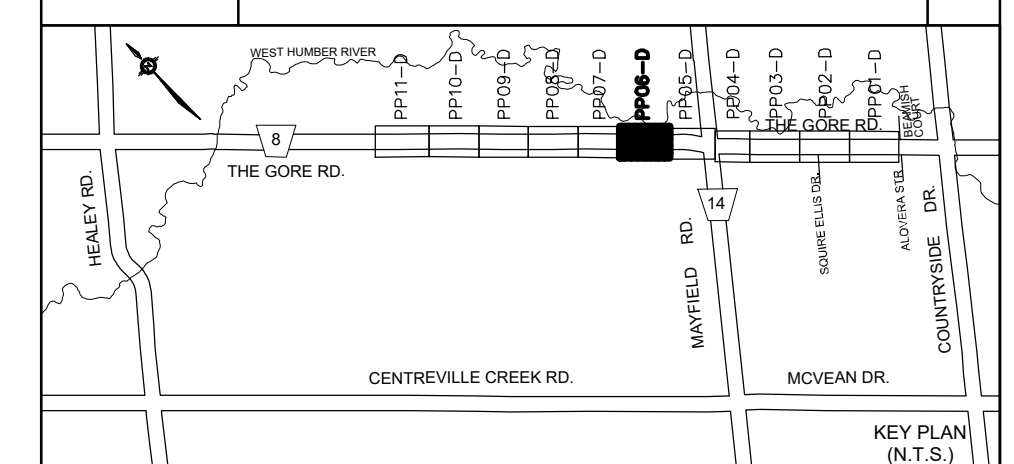
THIS DRAWING TO BE USED FOR SANITARY SEWER AND WATERMAIN CONSTRUCTION ONLY

THE EXISTING WATER SERVICE CONNECTION IS TO BE LOCATED ON FIELD BY CONTRACTOR DURING CONSTRUCTION AND TO BE ADJUSTED OR PROTECTED AS NEEDED



SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATERMANS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	N.L.



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- LEGEND:**
- DENOTES SANITARY MANHOLE
 - DENOTES STORM MANHOLE
 - □ DENOTES SINGLE/DOUBLE CATCHBASIN
 - SANITARY SEWER PROPOSED
 - SANITARY SEWER EXISTING
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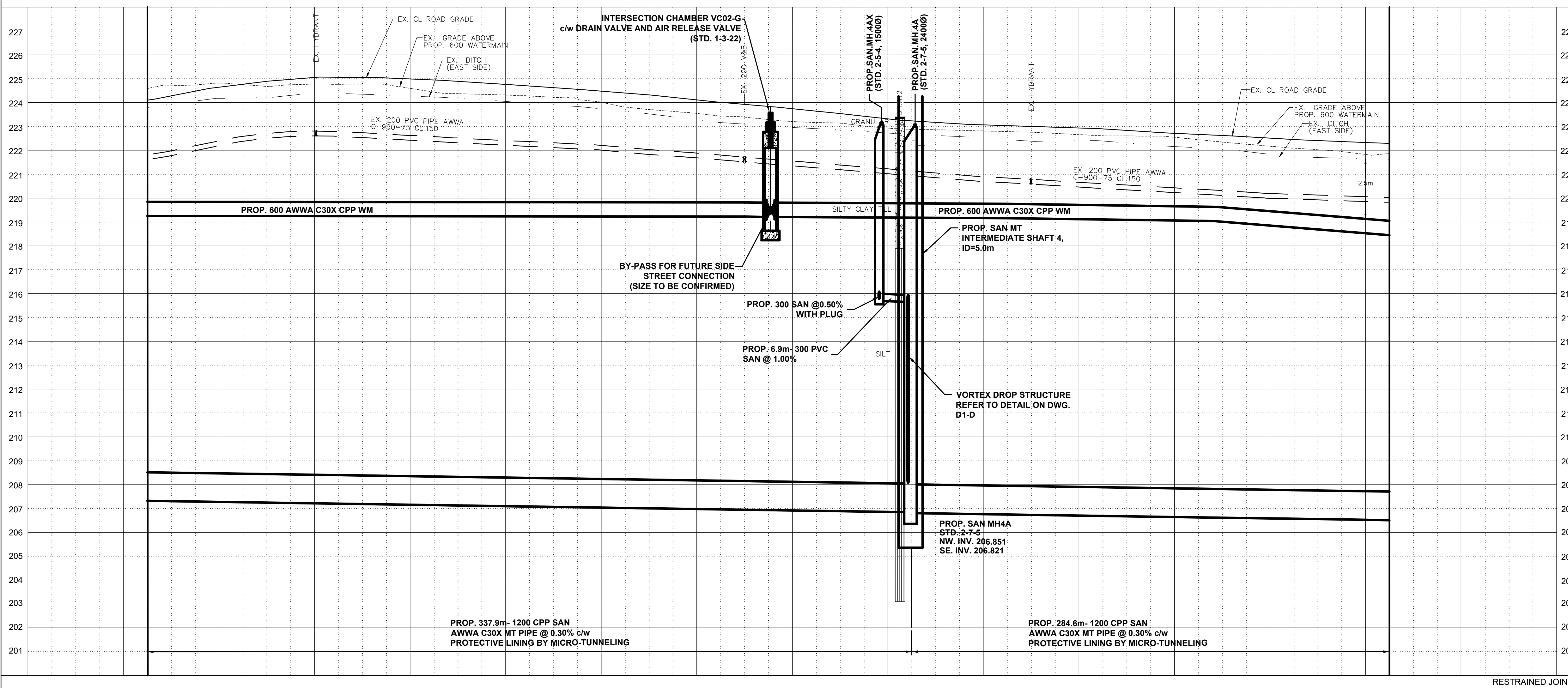
Professional Engineer Seal for H. SARKISIAN, P. Eng., No. 16227, Province of Ontario. Includes 'Designed by' and 'Approved by' fields.

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| PEARSON INTERNATIONAL FUEL FACILITIES CORP. | |
| UNION GAS | |
- Scale: 10m 0 10 20 30m HORIZONTAL SCALE 1:500
 2m 0 2 4 6m VERTICAL SCALE 1:100

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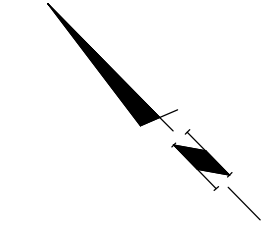


THE GORE ROAD
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PROP. 1200mm SANITARY SEWER
PROP. 600mm WATERMAIN
 STA. 14+220 TO STA. 14+480



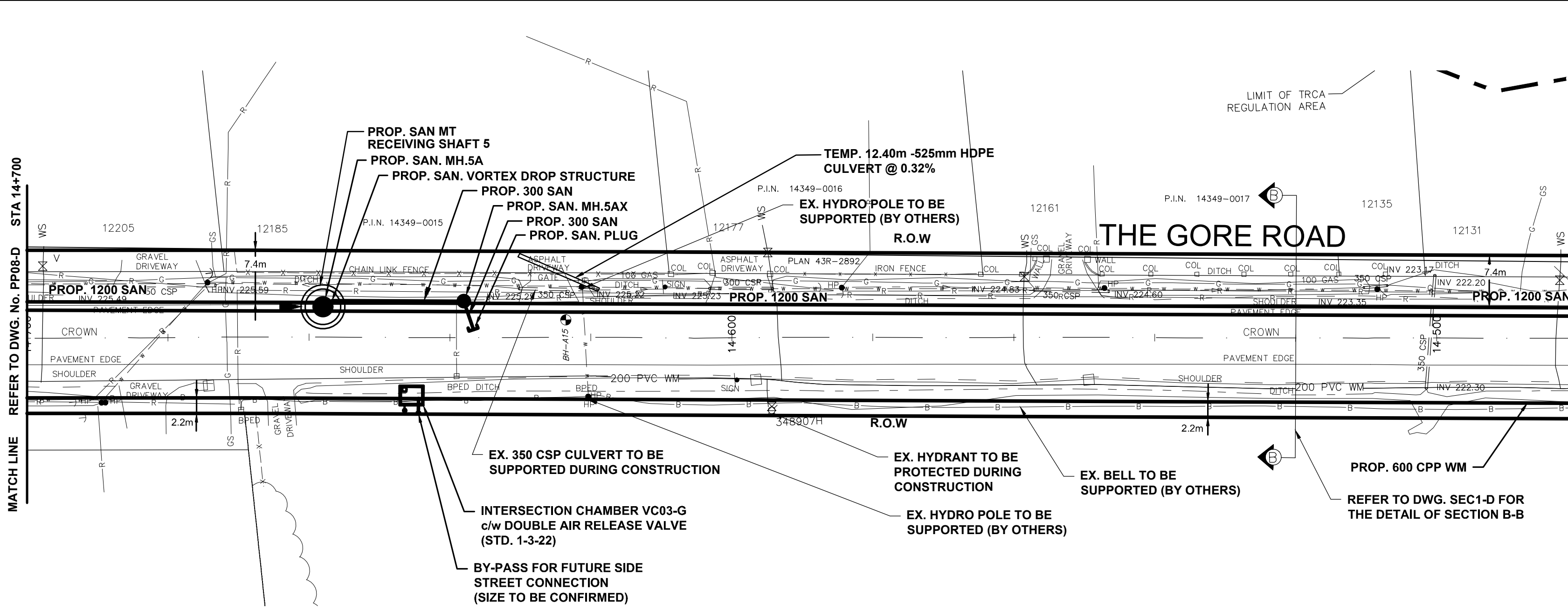
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14+480	14+460	14+440	14+420	14+400	14+380	14+360	14+340	14+320	14+300	14+280	14+260	14+240	14+220

CAD Area	X-XX	Area	X-XX	Project No.	242274/ 241193
Checked by	N.L.	Drawn by	A.L.	Date	JULY 2024
Sheet	9 of 31	Plan No.	PP06-D		



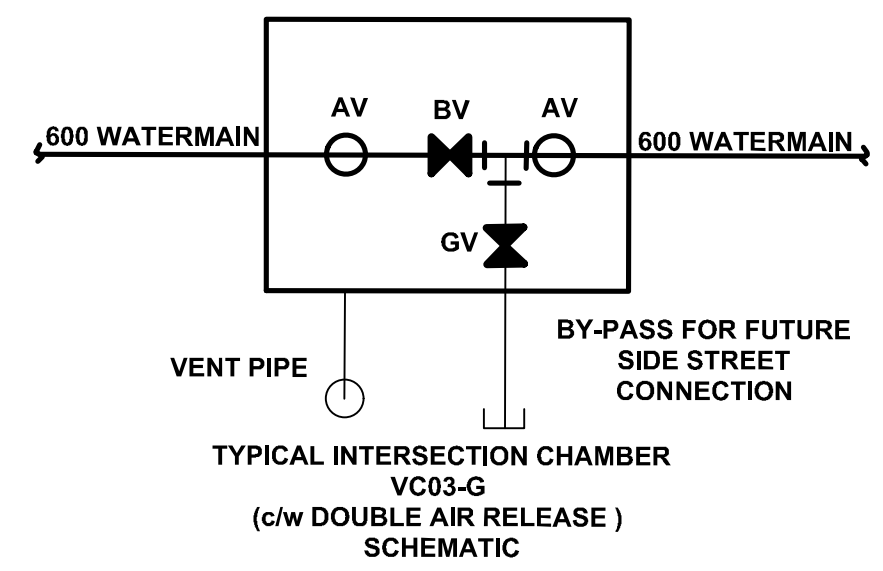
MATCH LINE REFER TO DWG. No. PP08-D STA 14+700

MATCH LINE REFER TO DWG. No. PP06-D STA 14+480



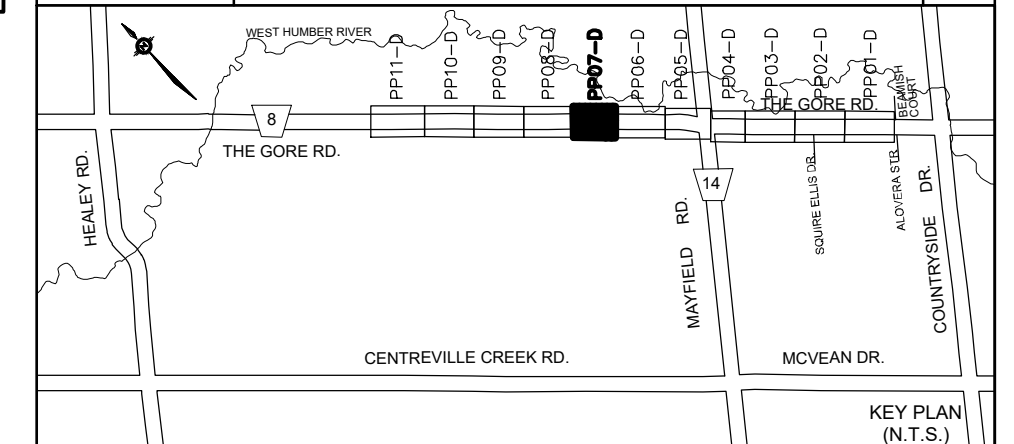
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WATER MAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	N.L.



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 - SANITARY SEWER PROPOSED
 - 1200 CPP SAN
 - SANITARY SEWER EXISTING
 - DENOTES PROPOSED WATERMAIN
 - DENOTES EXISTING WATERMAIN
 - 200 PVC WM
 - 300 5th
 - DENOTES EXISTING STORM SEWER
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 - DENOTES EXISTING GAS MAIN
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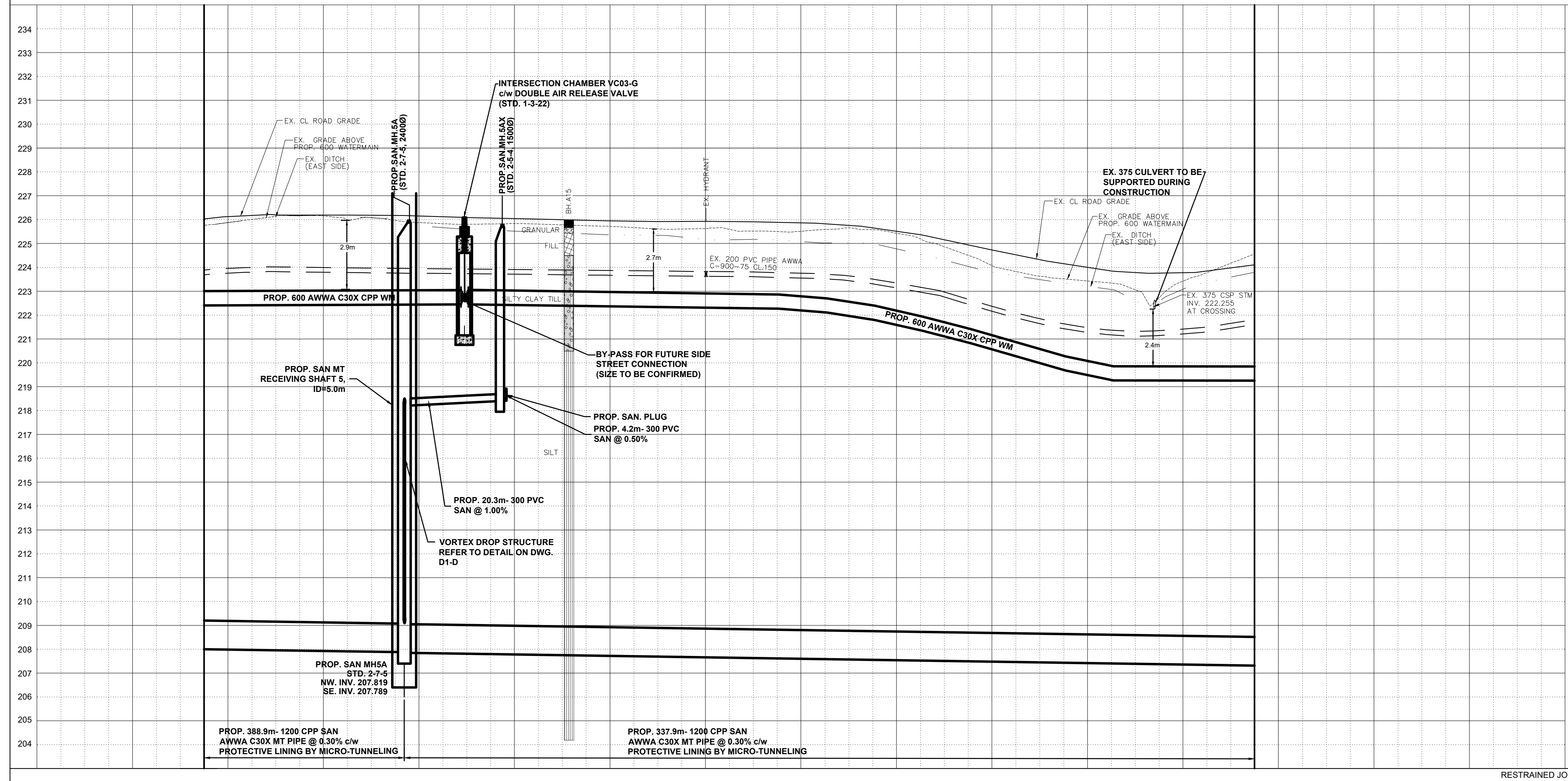
Designed by: Approved by:

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- 10m 0 10 20 30m HORIZONTAL SCALE 1:500
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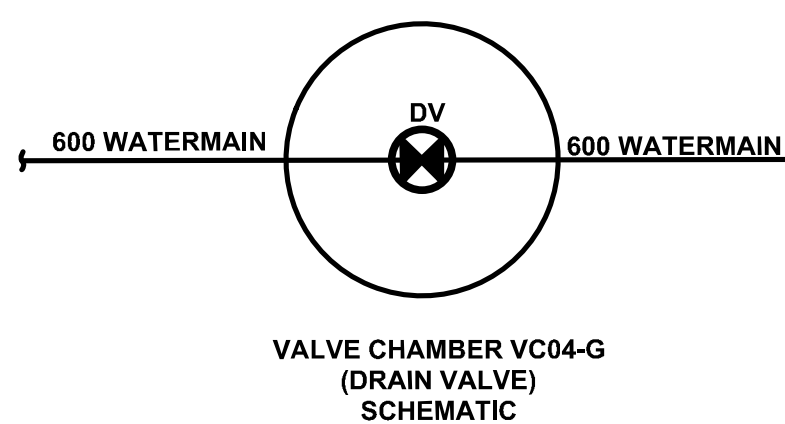
Region of Peel
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THE GORE ROAD
 (FROM MAYFIELD ROAD TO HEALEY ROAD)
 PROP. 1200mm SANITARY SEWER
 PROP. 600mm WATERMAIN
 STA. 14+480 TO STA. 14+700

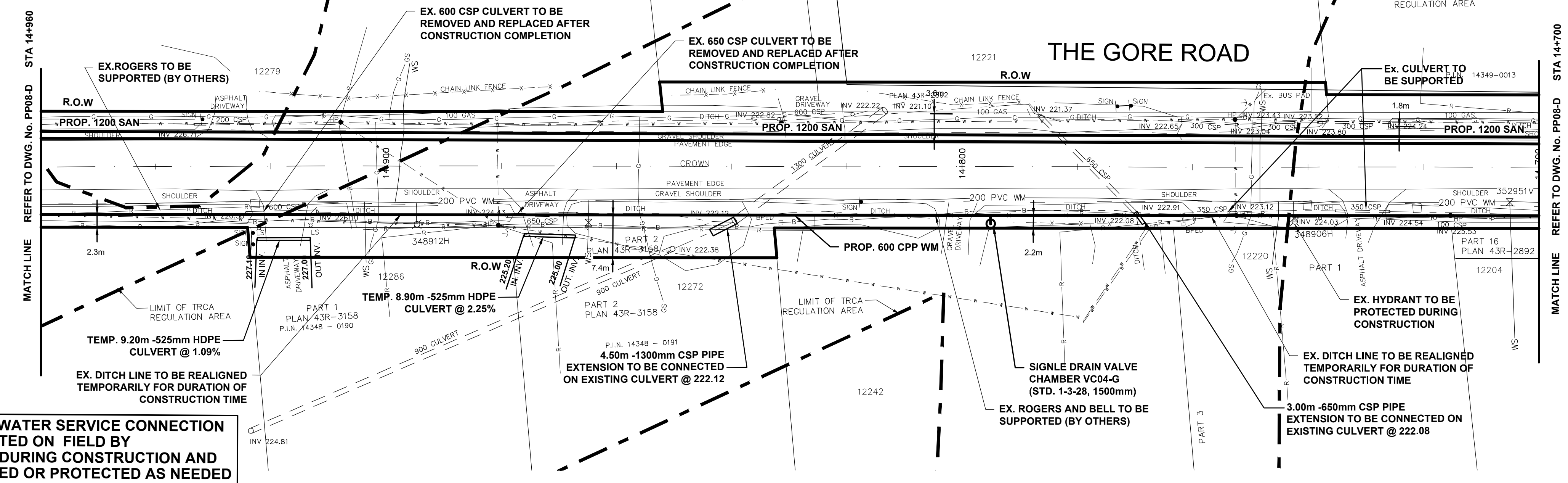


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226.03	226.19	226.18	226.07	225.97	225.92	225.89	225.66	224.95	224.16	223.76	224.11
14+700	14+680	14+660	14+640	14+620	14+600	14+580	14+560	14+540	14+520	14+500	14+480

CAD Area	X-XX	Area	X-XX	Project No.	242274/ 241193
Checked by	N.L.	Drawn by	A.L.	Date	JULY 2024
Sheet	10 of 31	Plan No.	PP07-D		



**THIS DRAWING TO BE USED FOR
SANITARY SEWER AND WATERMAIN
CONSTRUCTION ONLY**



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SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATERMAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
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- SANITARY SEWER PROPOSED
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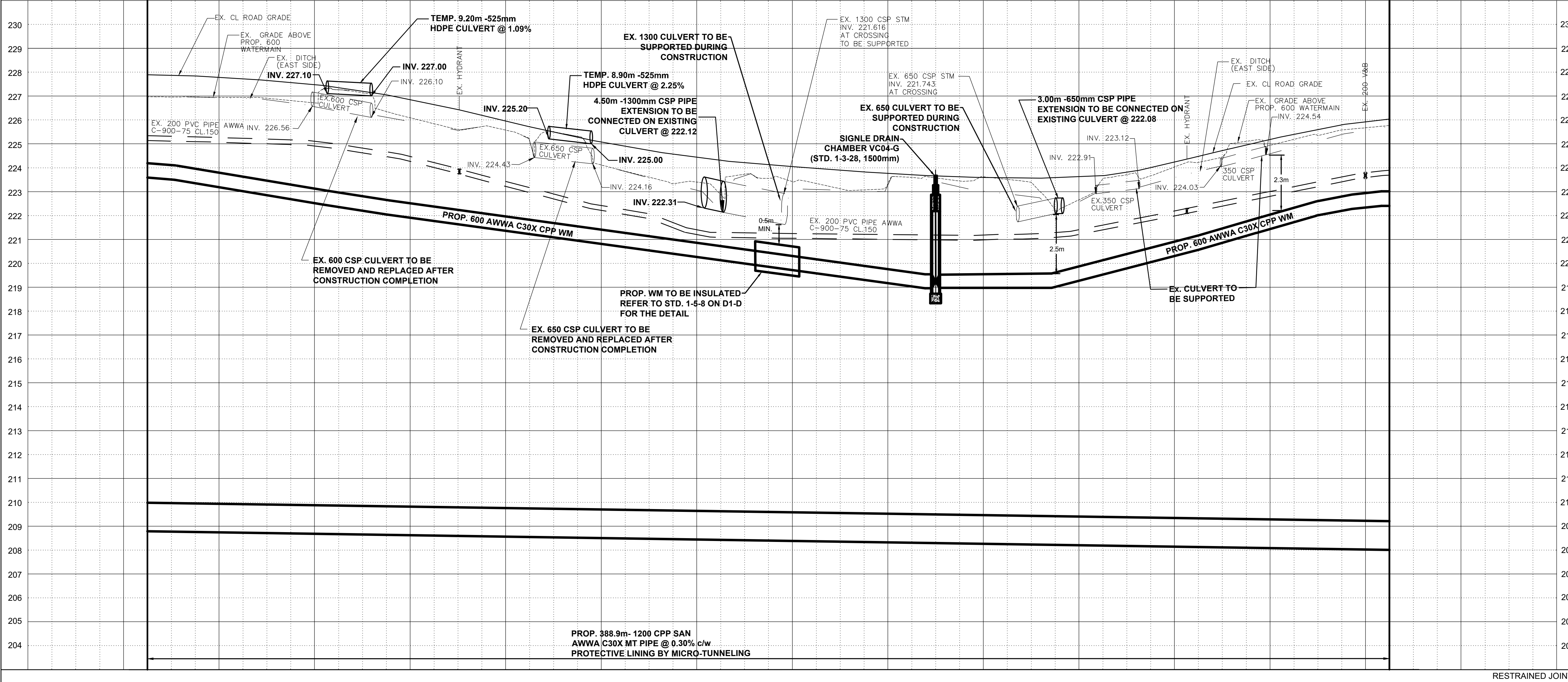
10m 0 10 20 30m HORIZONTAL SCALE 1:500
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SCHAEFFERS
 CONSULTING ENGINEERS

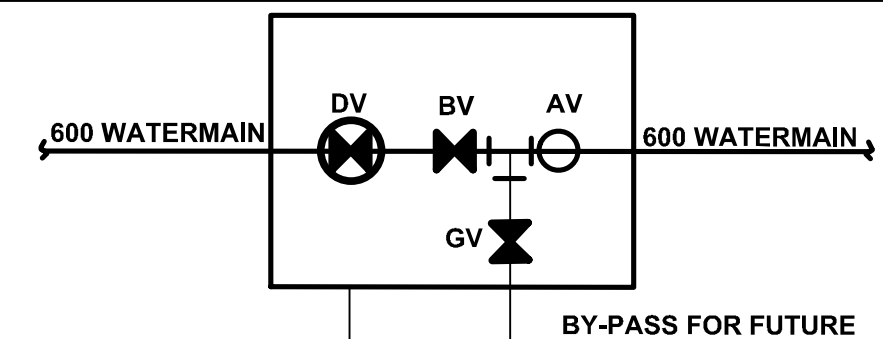
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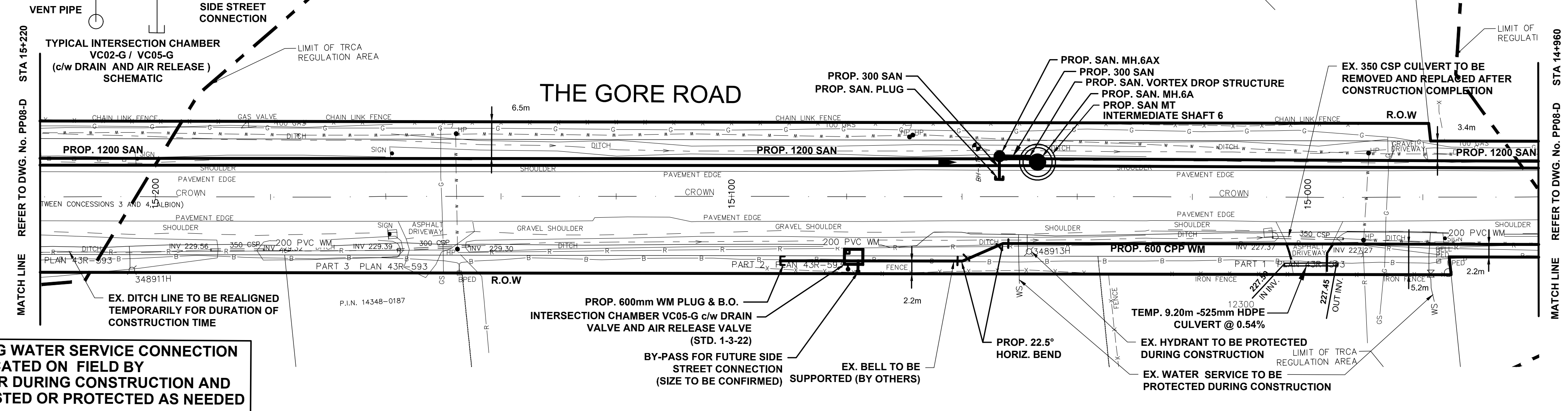
223.59	223.03	222.37	221.77	221.23	220.69	220.15	219.60	219.06	218.97	219.52	220.56	221.72	222.40	BOT. EL. OF WM.
227.89	227.72	227.35	226.64	225.71	224.90	224.30	223.97	223.70	223.58	223.67	224.48	225.39	226.03	EX. ROAD ELEV.
14+960	14+940	14+920	14+900	14+880	14+860	14+840	14+820	14+800	14+780	14+760	14+740	14+720	14+700	ROAD CHAINAGE



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STA 15+220
REFER TO DWG. No. PP08-D

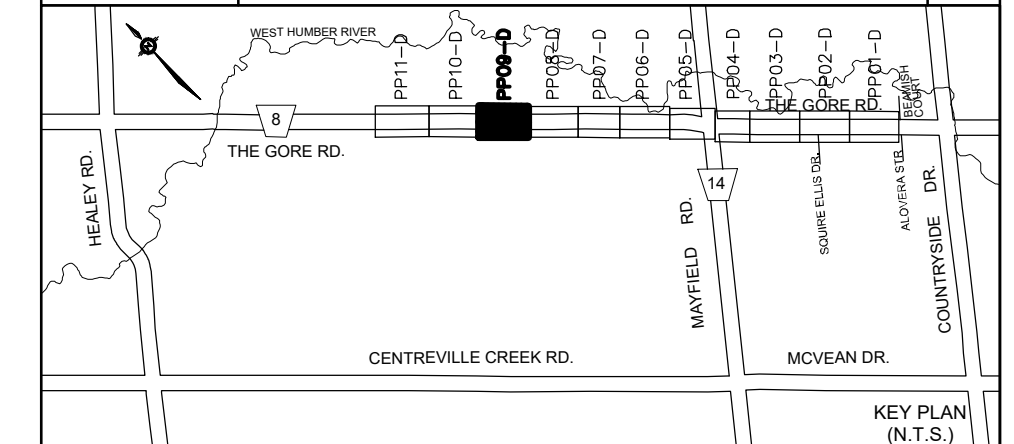
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 STA. 14+960 TO STA. 15+220



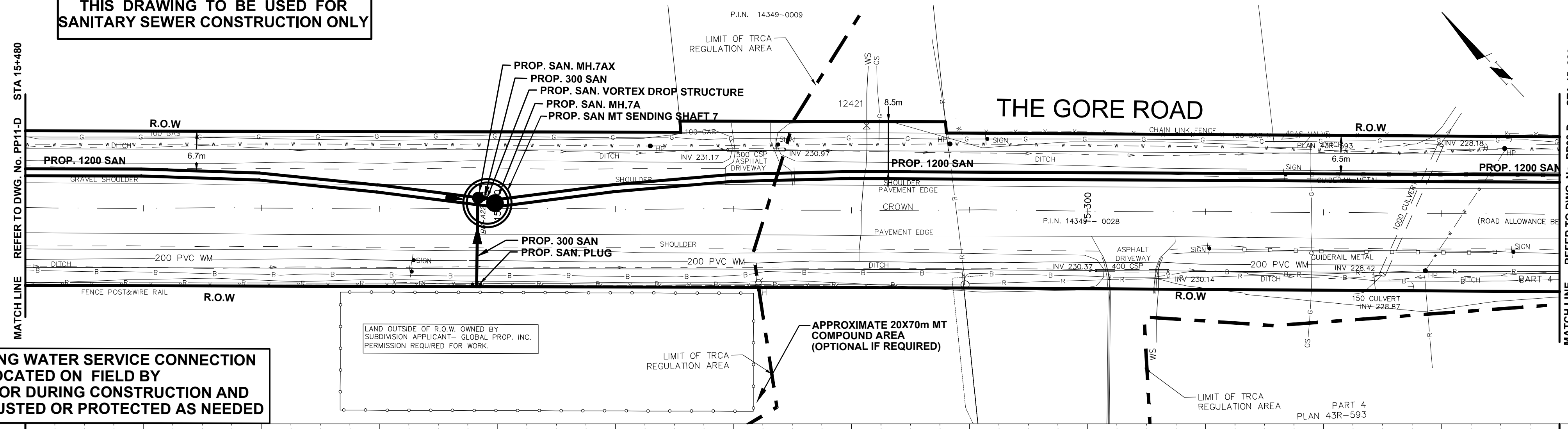
Station	230.95	230.75	230.54	230.30	230.05	229.83	229.63	229.33	228.96	228.61	228.36	228.15	227.98	227.89	225.59
ROAD CHAINAGE	15+220	15+200	15+180	15+160	15+140	15+120	15+100	15+080	15+060	15+040	15+020	15+000	14+980	14+960	
BOT. EL. OF WM															
EX. ROAD ELEV.															

CAD Area	X-XX	Area	X-XX	Project No.	242274/ 241193
Checked by	N.L.	Drawn by	A.L.	Date	JULY 2024
Sheet	12 of 31	Plan No.	PP09-D		

**THIS DRAWING TO BE USED FOR
SANITARY SEWER CONSTRUCTION ONLY**

MATCH LINE REFER TO DWG. NO. PP11-D STA 15+480

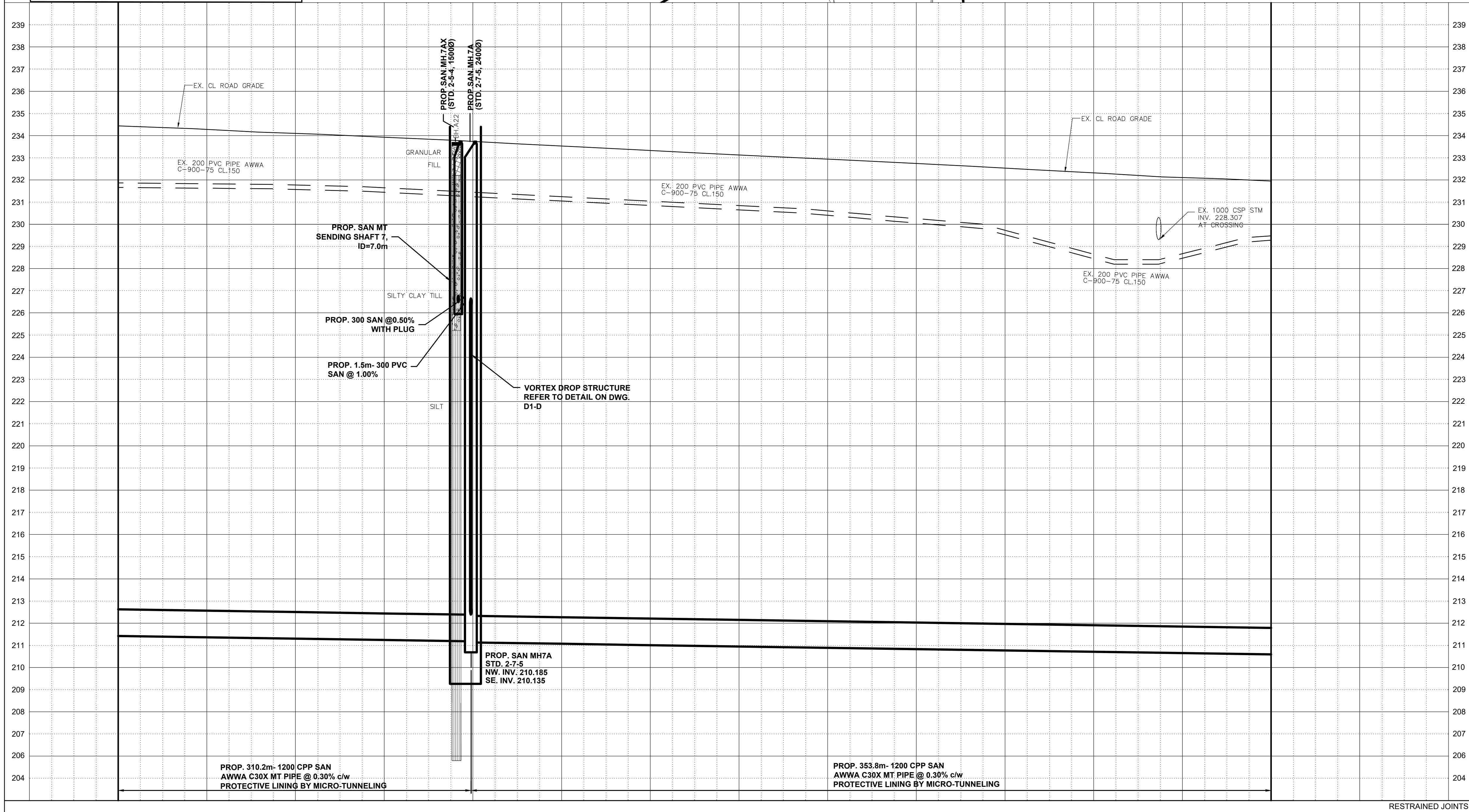
MATCH LINE REFER TO DWG. NO. PP08-D STA 15+220



**THE EXISTING WATER SERVICE CONNECTION
IS TO BE LOCATED ON FIELD BY
CONTRACTOR DURING CONSTRUCTION AND
TO BE ADJUSTED OR PROTECTED AS NEEDED**

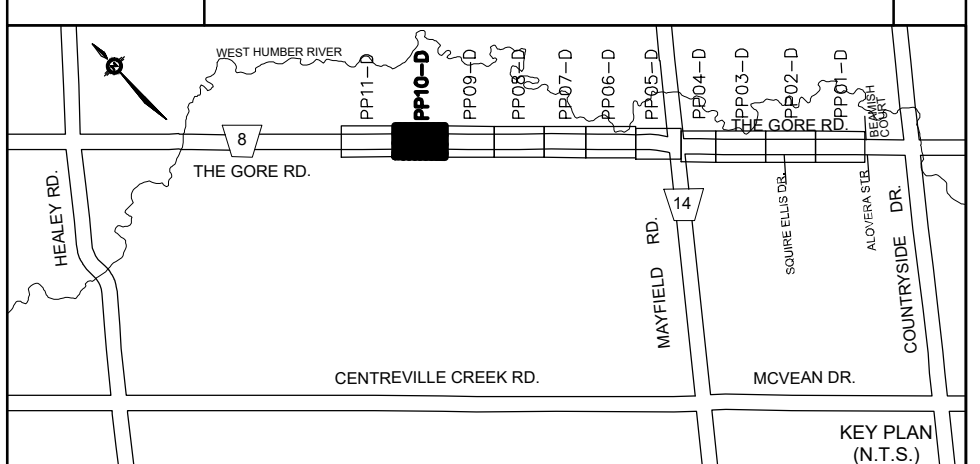
LAND OUTSIDE OF R.O.W. OWNED BY
SUBDIVISION APPLICANT - GLOBAL PROP. INC.
PERMISSION REQUIRED FOR WORK.

APPROXIMATE 20X70m MT
COMPOUND AREA
(OPTIONAL IF REQUIRED)



SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATER MAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	N.L.



- NOTES:**
- INVERTS, SIZE AND LOCATION FOR ALL SERVICES AND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO EXCAVATION AND PROTECTED/SUPPORTED ACCORDINGLY DURING CONSTRUCTION.
 - LOCAL ACCESS TO RESIDENTS IS TO BE PROVIDED AT ALL TIMES DURING CONSTRUCTION.
 - THE VALVE CHAMBER SCHEMATICS SHOWN IN THE PLAN AND PROFILE DRAWINGS, REFER TO THE REGION OF PEEL STANDARD DRAWINGS TO DETERMINE THE NECESSARY VALVING TYPE/CONFIGURATION DETAILS.
 - FOR RELOCATION OF THE EX. 200 WATERMAIN WITH LENGTH EXCEEDING 6.0m FLUSHING AND DISINFECTION IS REQUIRED.
 - ALL EX. DITCHES RELOCATED WITHIN COMPOUND AREA TO BE REINSTATED TO ORIGINAL ALIGNMENT.
 - FOR SHAFT COMPOUND DETAILS AND TEMPORARY WORK TO MAINTAIN LOCAL TRAFFIC ONLY, REFER TO DRAWINGS TCI-D TO TC8-D.
 - FOR TREE REMOVAL/PROTECTION REFER TO RM1-D TO RM4-D.

- LEGEND:**
- DENOTES SANITARY MANHOLE
 - DENOTES STORM MANHOLE
 - □ DENOTES SINGLE/DOUBLE CATCHBASIN
 - SANITARY SEWER PROPOSED
 - 1200 CPP SAN
 - SANITARY SEWER EXISTING
 - DENOTES PROPOSED WATERMAIN
 - 200 PVC WM
 - DENOTES EXISTING WATERMAIN
 - 300 STM
 - DENOTES EXISTING STORM SEWER
 - DENOTES ROGERS
 - DENOTES EXISTING GAS MAIN
 - DENOTES EXISTING AERIAL CABLES
 - DENOTES LIMIT OF TRCA REGULATION AREA

General Notes

All Measurements Are In Meters (m) Unless Otherwise Noted
 All Driveways Are ASPHALT Unless Otherwise Noted
 All Water And Sanitary Service Locations Are Approximate
 And Must Be Located Accurately In The Field
 All Horizontal And Vertical Bends Are In Degrees

Agency: B.M. No. 44
 Elev. 227.690 (Geodetic)
 Coordinate System: UTM NAD83 (Original)
 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: _____
Approved by: _____

- NOTICE TO CONTRACTOR**
 48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING
- | | |
|---|---------------------------------------|
| THE REGIONAL MUNICIPALITY OF PEEL | CABLE TELEVISION/FIBROPTIC PROVIDERS: |
| CITY OF MISSISSAUGA WORKS DEPT. | BELL CANADA |
| CITY OF BRAMPTON WORKS DEPT. | ENERSOURCE TELECOM |
| TOWN OF CALEDON WORKS DEPT. | HYDRO ONE TELECOM |
| ENBRIDGE INCORPORATED-GAS DISTRIBUTION | ROGERS CABLE |
| ONTARIO MINISTRY OF TRANSPORTATION | ALLSTREAM (ZAYO) |
| ONTARIO CLEAN WATER AGENCY | PSN (PUBLIC SECTOR NETWORK) |
| HYDRO ONE NETWORKS | FUTUREWAY (FCI BROADBAND) |
| ALECTRA UTILITIES | GT FIBER/360 NETWORK INC. |
| TRANS NORTHERN PIPELINE | TELUS COMMUNICATION |
| PEARSON INTERNATIONAL FUEL FACILITIES CORP. | |
| UNION GAS | |

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CONSULTING ENGINEERS

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Ontario L4K 4R3
Tel: (905) 738-6100
Fax: (905) 738-6875
E-mail: design@schaeffers.com

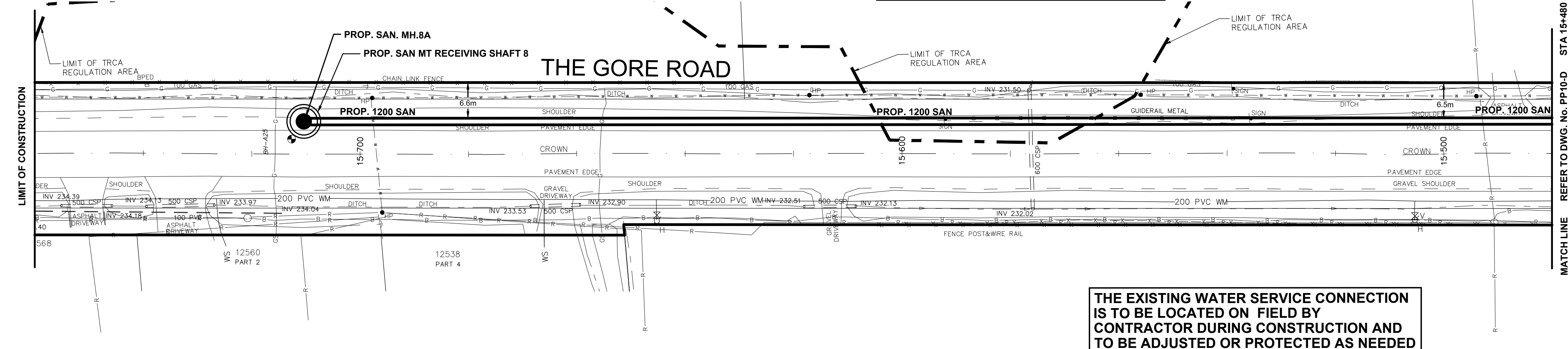
Region of Peel
working with you

THE GORE ROAD
(FROM MAYFIELD ROAD TO HEALEY ROAD)
PROP. 1200mm SANITARY SEWER
STA. 15+220 TO STA. 15+480

STATION	233.44	233.28	233.10	232.93	232.74	232.53	232.33	232.13	231.94	231.75	231.53	231.32	231.11	230.95
BOT. EL. OF WM.														
EX. ROAD ELEV.														
ROAD CHAINAGE	15+480	15+460	15+440	15+420	15+400	15+380	15+360	15+340	15+320	15+300	15+280	15+260	15+240	15+220

CAD Area	X-XX	Area	X-XX	Project No.	242274/ 241193
Checked by	N.L.	Drawn by	A.L.	Date	JULY 2024
Sheet	13 of 31	Plan No.	PP10-D		

**THIS DRAWING TO BE USED FOR
SANITARY SEWER CONSTRUCTION ONLY**



**THE EXISTING WATER SERVICE CONNECTION
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CONTRACTOR DURING CONSTRUCTION AND
TO BE ADJUSTED OR PROTECTED AS NEEDED**

SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATER MAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	N.L.

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- SANITARY SEWER PROPOSED
- SANITARY SEWER EXISTING
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- DENOTES EXISTING WATERMAIN
- DENOTES EXISTING STORM SEWER
- DENOTES ROGERS
- DENOTES EXISTING GAS MAIN
- DENOTES EXISTING AERIAL CABLES
- DENOTES LIMIT OF TRCA REGULATION AREA

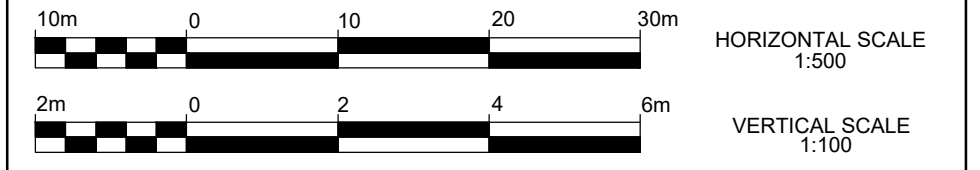
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 Elev. 227.680 (Geodetic)
 Coordinate System: UTM NAD83 (Original)
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Designed by: _____
 Chkd. _____
 Approved by: _____

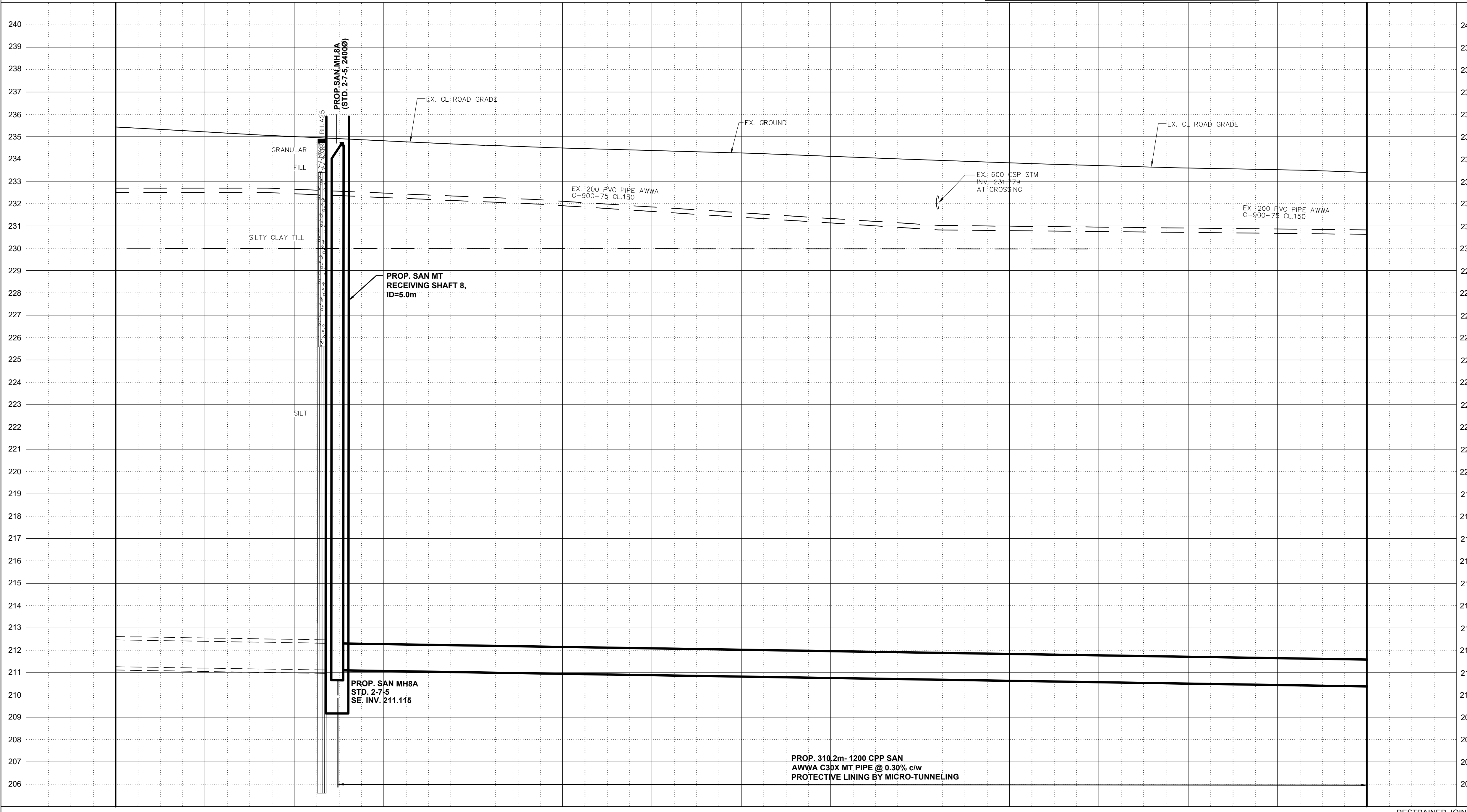
- NOTICE TO CONTRACTOR**
 48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING
- | | |
|---|---------------------------------------|
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| ENBRIDGE INCORPORATED-GAS DISTRIBUTION | ROGERS CABLE |
| ONTARIO MINISTRY OF TRANSPORTATION | ALLSTREAM (ZAYO) |
| ONTARIO CLEAN WATER AGENCY | PSN (PUBLIC SECTOR NETWORK) |
| HYDRO ONE NETWORKS | FUTUREWAY (FCI BROADBAND) |
| ALECTRA UTILITIES | GT FIBER/360 NETWORK INC. |
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| UNION GAS | |



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 E-mail: design@schaeffers.com



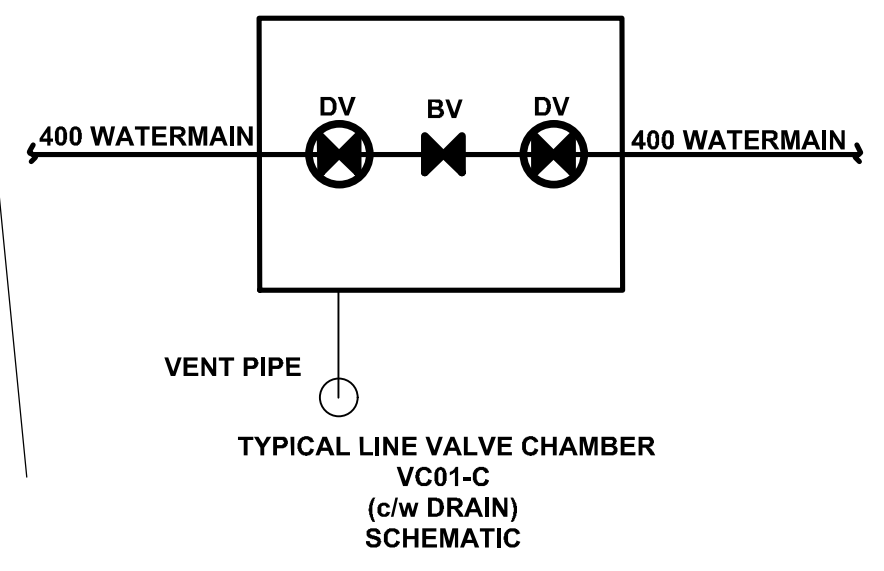
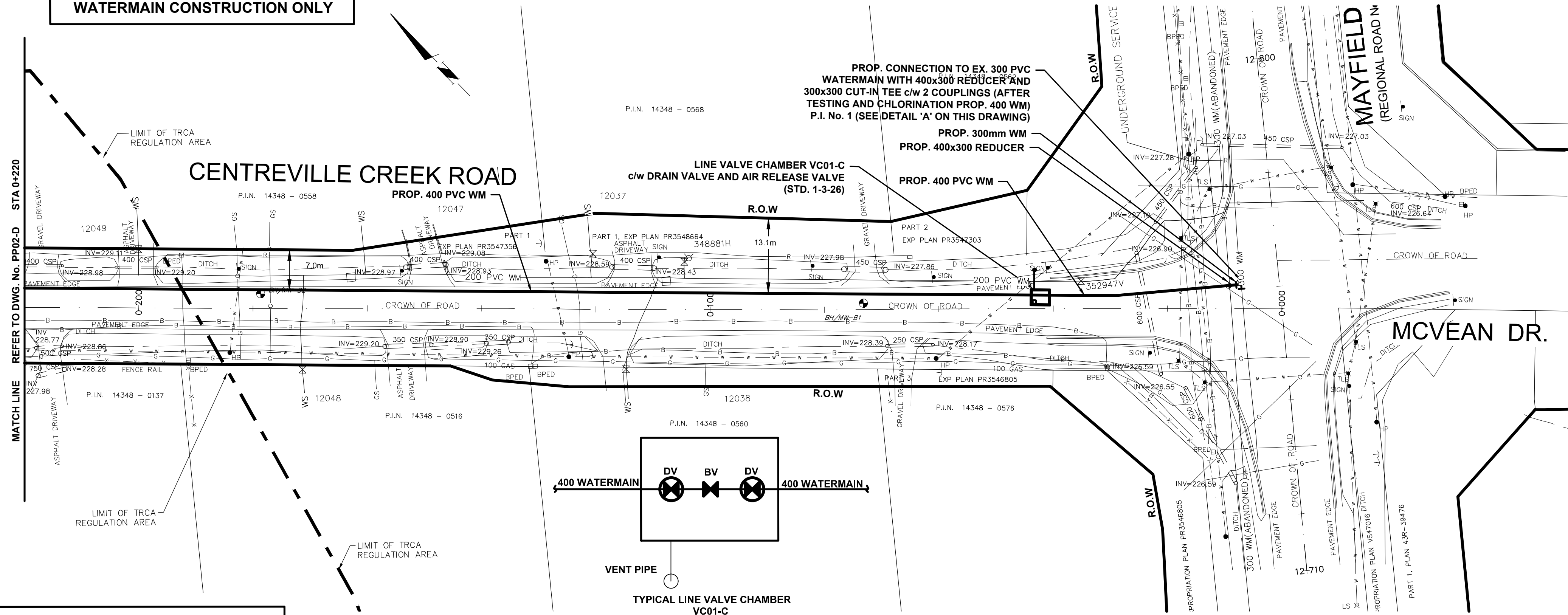
THE GORE ROAD
 (FROM MAYFIELD ROAD TO HEALEY ROAD)
PROP. 1200mm SANITARY SEWER
 STA. 15+480 TO STA. 15+760



RESTRAINED JOINTS														
BOT. EL. OF WM.														
235.43	235.22	235.01	234.82	234.64	234.51	234.40	234.29	234.14	233.99	233.85	233.74	233.63	233.56	233.44
15+760	15+740	15+720	15+700	15+680	15+660	15+640	15+620	15+600	15+580	15+560	15+540	15+520	15+500	15+480

CAD Area	X-XX	Area	X-XX	Project No.	242274/ 241193
Checked by	N.L.	Drawn by	A.L.	Date	JULY 2024
Sheet	14 of 31	Plan No.	PP11-D		

THIS DRAWING TO BE USED FOR WATERMAIN CONSTRUCTION ONLY



THE EXISTING WATER SERVICE CONNECTION IS TO BE LOCATED ON FIELD BY CONTRACTOR DURING CONSTRUCTION AND TO BE ADJUSTED OR PROTECTED AS NEEDED

SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATERMAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	C.Z.

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 - FOR TREE REMOVALS/PROTECTION REFER TO RM1-D TO RM2-D

LEGEND:

- DENOTES PROPOSED WATERMAIN
- DENOTES EXISTING WATERMAIN
- DENOTES EXISTING STORM SEWER
- DENOTES ROGERS
- DENOTES EXISTING GAS MAIN
- DENOTES EXISTING AERIAL CABLES
- DENOTES LIMIT OF TRCA REGULATION AREA
- DENOTES SINGLE/DOUBLE CATCHBASIN

General Notes

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 Coordinate System: UTM NAD83 (Original)
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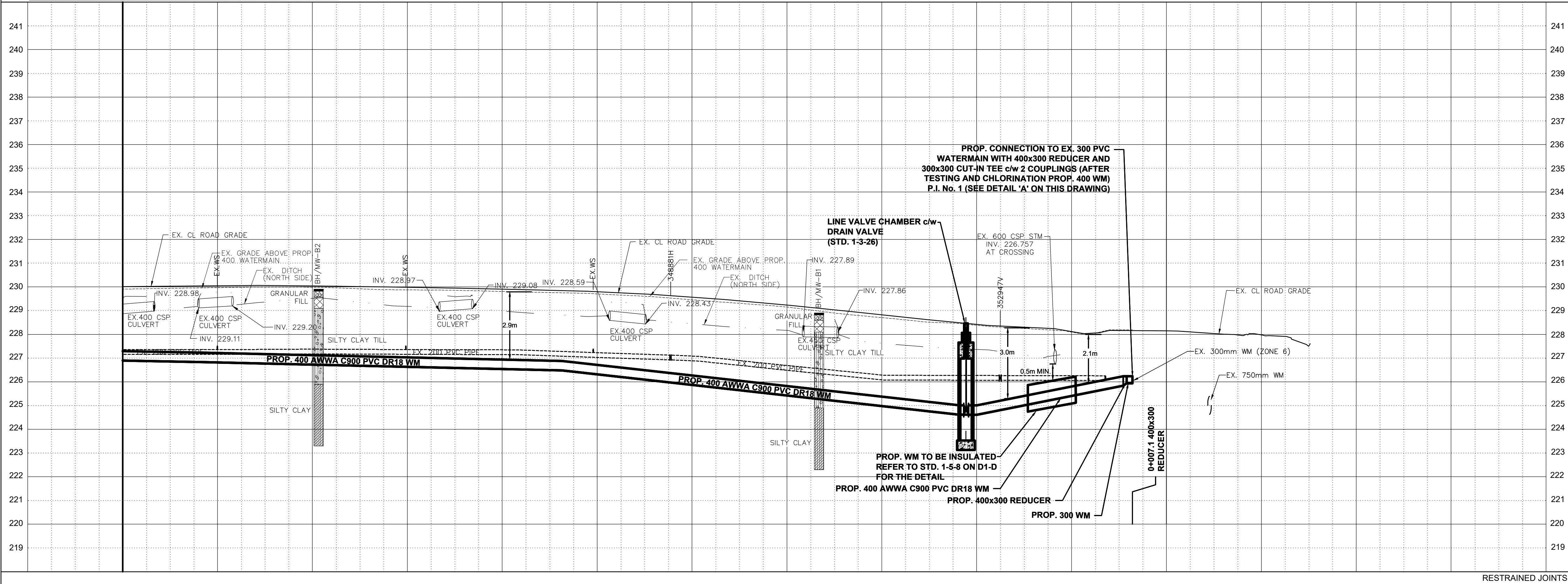
Designed by: [Signature]
 Approved by: [Signature]

NOTICE TO CONTRACTOR
 48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

THE REGIONAL MUNICIPALITY OF PEEL	CABLE TELEVISION/FIBEROPTIC PROVIDERS:
CITY OF MISSISSAUGA WORKS DEPT.	BELL CANADA
CITY OF BRAMPTON WORKS DEPT.	ENERSOURCE TELECOM
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PEARSON INTERNATIONAL FUEL FACILITIES CORP.	
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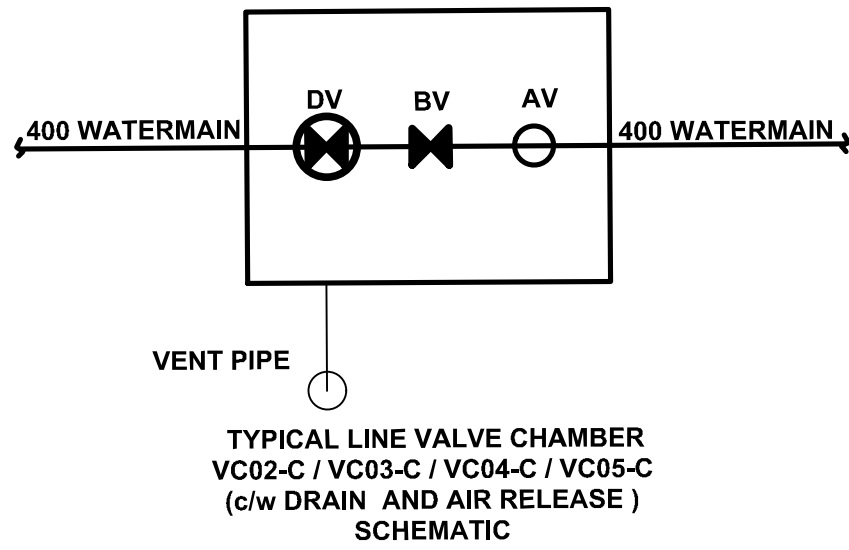
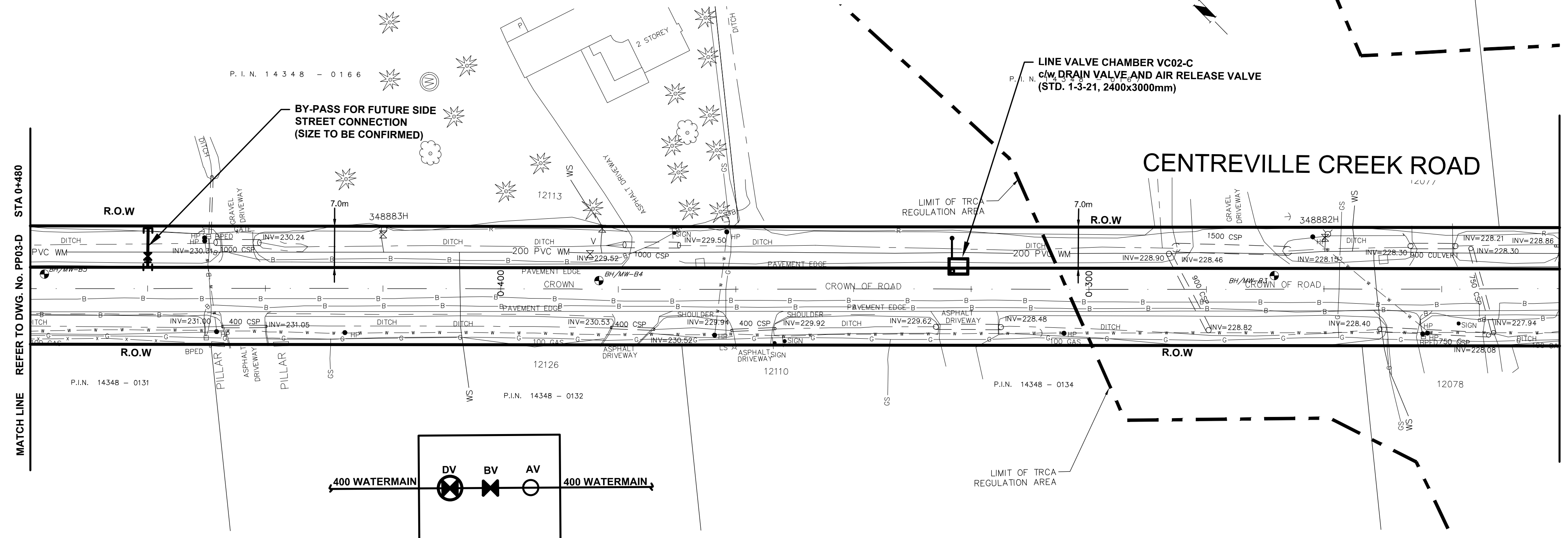
THE CENTREVILLE CREEK
 (FROM MAYFIELD ROAD TO HEALEY ROAD)
PROP. 400mm WATERMAIN
 STA. 0+000 TO STA. 0+220



STATION	226.90	226.86	226.82	226.77	226.72	226.68	226.63	226.58	226.54	226.49	226.40	226.29	226.19	226.08	225.97	225.87	225.76	225.65	225.59	225.67	225.75	225.83	
BOT. EL. OF WM.	229.91	229.94	229.97	230.00	229.99	229.92	229.88	229.86	229.81	229.76	229.71	229.61	229.46	229.31	229.15	228.90	228.71	228.52	228.38	228.25	228.10	228.19	
EX. ROAD ELEV.	0+220	0+210	0+200	0+190	0+180	0+170	0+160	0+150	0+140	0+130	0+120	0+110	0+100	0+090	0+080	0+070	0+060	0+050	0+040	0+030	0+020	0+010	0+000
ROAD CHAINAGE																							

CAD Area	X-XX	Area	X-XX	Project No.	291199
Checked by	N.L.	Drawn by	A.L.	Date	JULY 2024
Sheet	4 of 14	Plan No.	PP01-D		

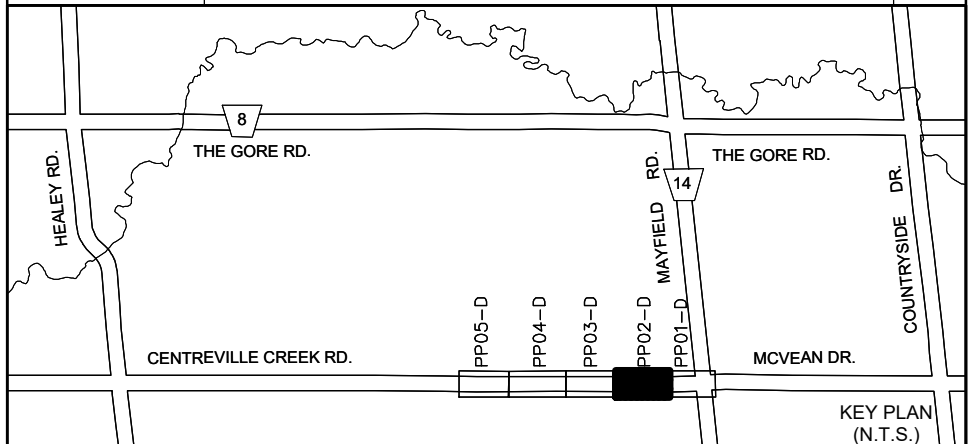
THIS DRAWING TO BE USED FOR WATERMAIN CONSTRUCTION ONLY



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SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATER MAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	C.Z.



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LEGEND:

- DENOTES PROPOSED WATERMAIN
- 200 PVC WM DENOTES EXISTING WATERMAIN
- 300 STM DENOTES EXISTING STORM SEWER
- R DENOTES ROGERS
- G DENOTES EXISTING GAS MAIN
- * * * DENOTES EXISTING AERIAL CABLES
- DENOTES LIMIT OF TRCA REGULATION AREA
- □ DENOTES SINGLE/DOUBLE CATCHBASIN

General Notes

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Agency: B.M. No. Elev. XXX.XXX (Geodetic)
 Coordinate System: UTM NAD83 (Original)
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DESIGNED BY: H. SARKISIAN, PROFESSIONAL ENGINEER, REG. NO. 40107, PROVINCE OF ONTARIO

Checked by: _____ Approved by: _____

NOTICE TO CONTRACTOR
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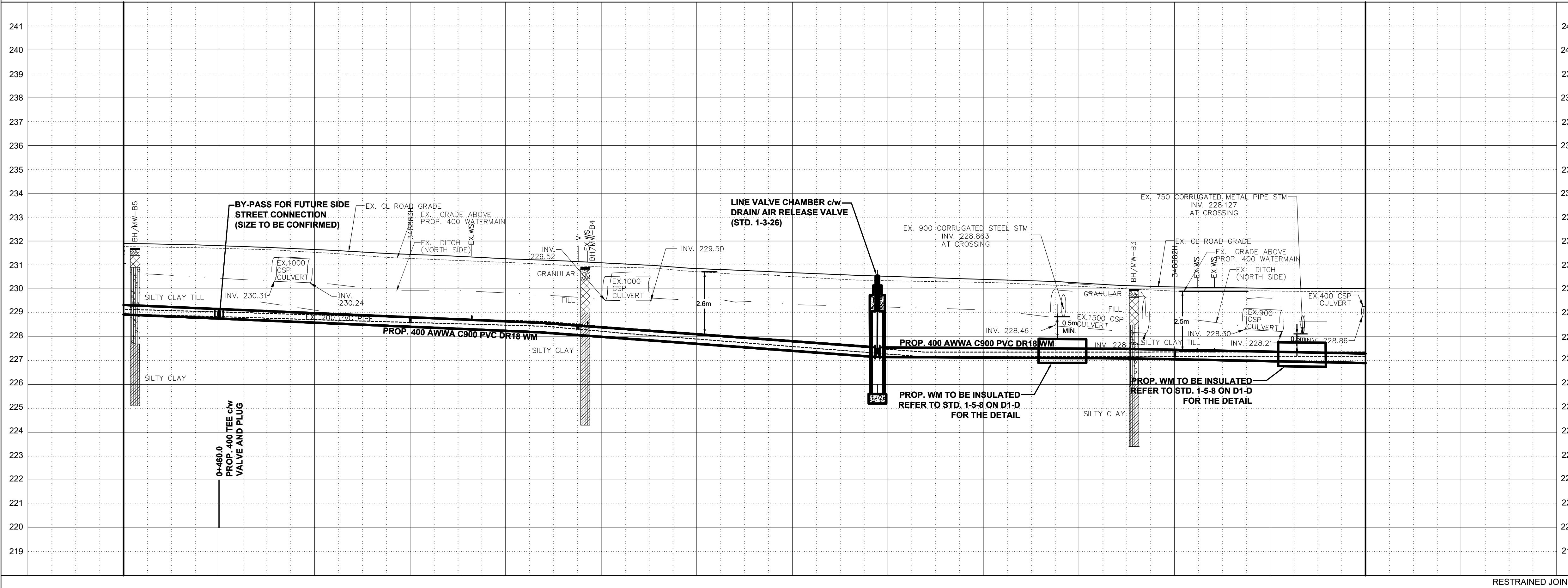
THE REGIONAL MUNICIPALITY OF PEEL	CABLE TELEVISION/FIBROPTIC PROVIDERS:
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UNION GAS	

10m 0 10 20 30m HORIZONTAL SCALE 1:500
 2m 0 2 4 6m VERTICAL SCALE 1:100

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Region of Peel
 working with you

THE CENTREVILLE CREEK ROAD
 (FROM MAYFIELD ROAD TO HEALEY ROAD)
PROP. 400mm WATERMAIN
 STA. 0+220 TO STA. 0+480



228.93	228.84	228.76	228.67	228.59	228.50	228.41	228.33	228.24	228.14	227.99	227.85	227.70	227.55	227.41	227.26	227.14	227.13	227.12	227.11	227.10	227.09	227.05	227.01	226.98	226.94	226.90
231.77	231.74	231.70	231.64	231.53	231.40	231.27	231.19	231.11	231.01	230.92	230.88	230.72	230.62	230.51	230.40	230.34	230.30	230.27	230.20	230.11	230.01	229.91	229.91	229.91	229.88	229.91
0+480	0+470	0+460	0+450	0+440	0+430	0+420	0+410	0+400	0+390	0+380	0+370	0+360	0+350	0+340	0+330	0+320	0+310	0+300	0+290	0+280	0+270	0+260	0+250	0+240	0+230	0+220

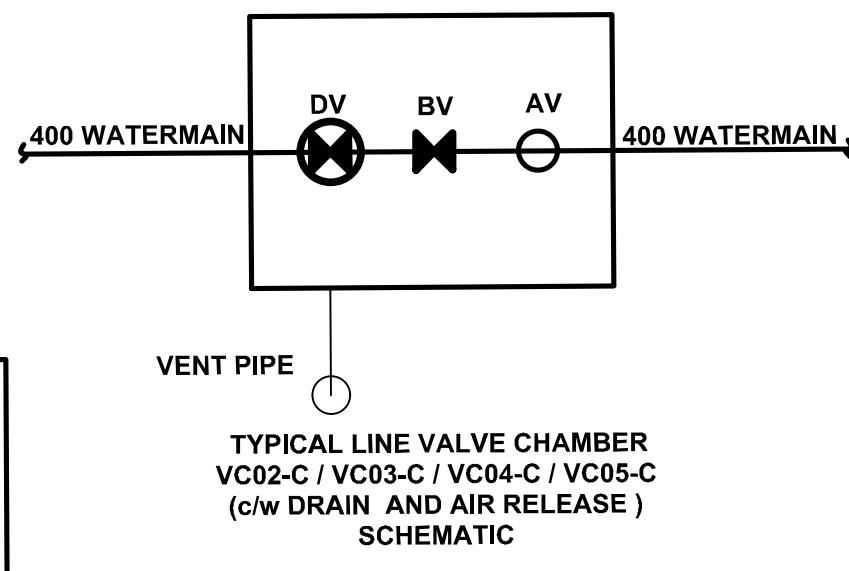
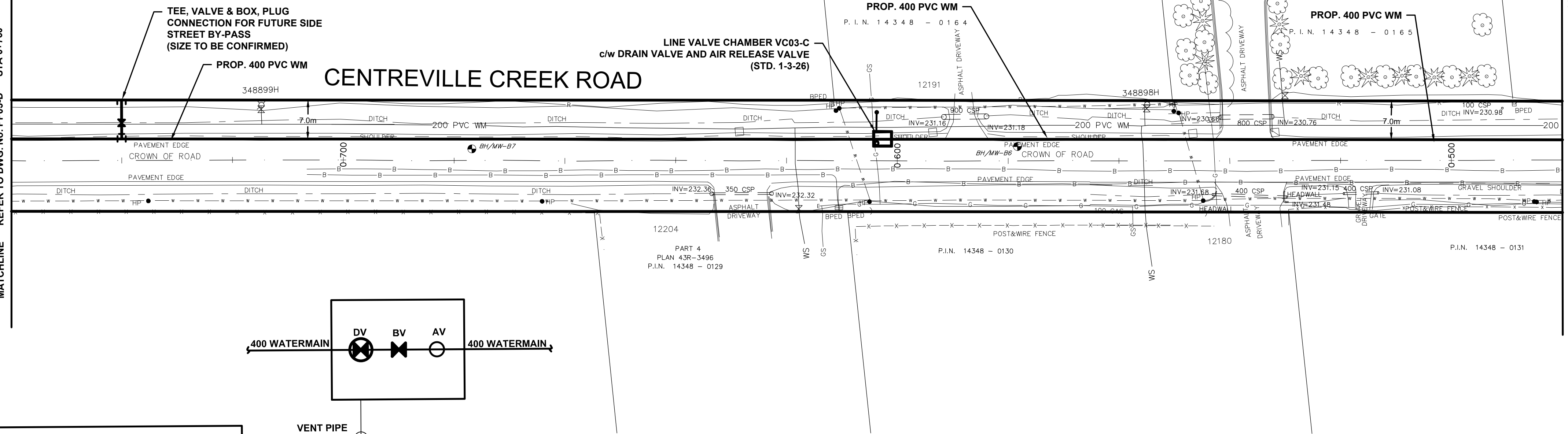
RESTRAINED JOINTS	BOT. EL. OF WM.	Project No.	291199
EX. ROAD ELEV.	Checked by N.L.	Drawn by A.L.	
ROAD CHAINAGE	Date JULY 2024	Sheet 5 of 14	Plan No. PP02-D

THIS DRAWING TO BE USED FOR WATERMAIN CONSTRUCTION ONLY

MATCHLINE REFER TO DWG. No. PP03-D STA 0+760

MATCHLINE REFER TO DWG. No. PP02-D STA 0+480

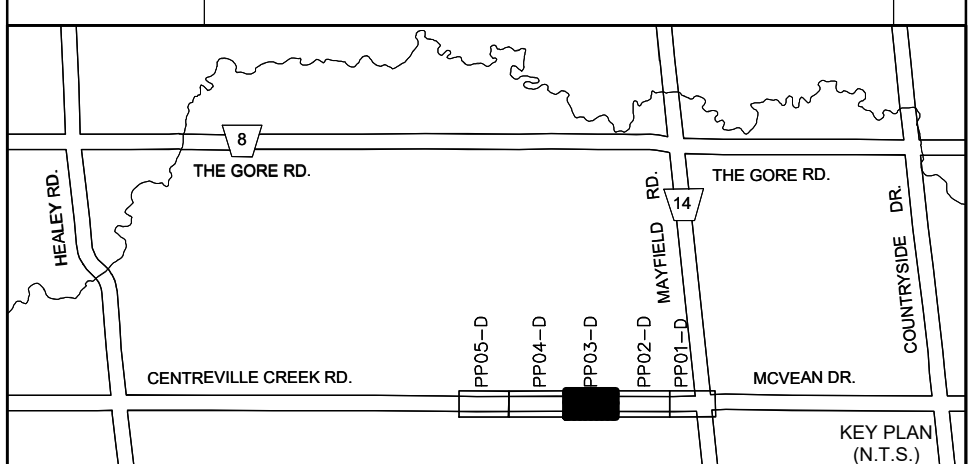
CENTREVILLE CREEK ROAD



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WATER MAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	C.Z.



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LEGEND:

- DENOTES PROPOSED WATERMAIN
- 200 PVC WM — DENOTES EXISTING WATERMAIN
- 300 STM — DENOTES EXISTING STORM SEWER
- R — DENOTES ROGERS
- G — DENOTES EXISTING GAS MAIN
- * — * — DENOTES EXISTING AERIAL CABLES
- — — DENOTES LIMIT OF TRCA REGULATION AREA
- □ DENOTES SINGLE/DOUBLE CATCH BASIN

General Notes

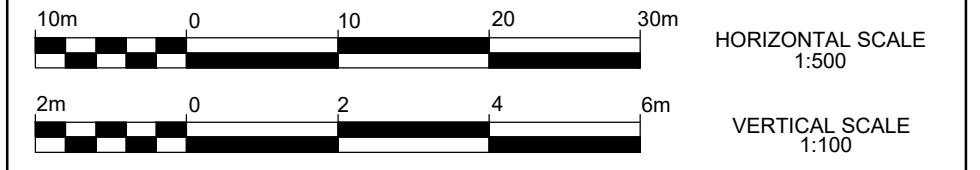
All Measurements Are In Meters (m) Unless Otherwise Noted
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Agency: B.M. No. Elev. XXX.XXX (Geodetic) Coordinate System: UTM NAD83 (Original)
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DESIGNED BY: H. SARKISIAN
 REGISTERED PROFESSIONAL ENGINEER
 PROVINCE OF ONTARIO
 SEPT. 16, 2022

Checked by: _____ Approved by: _____

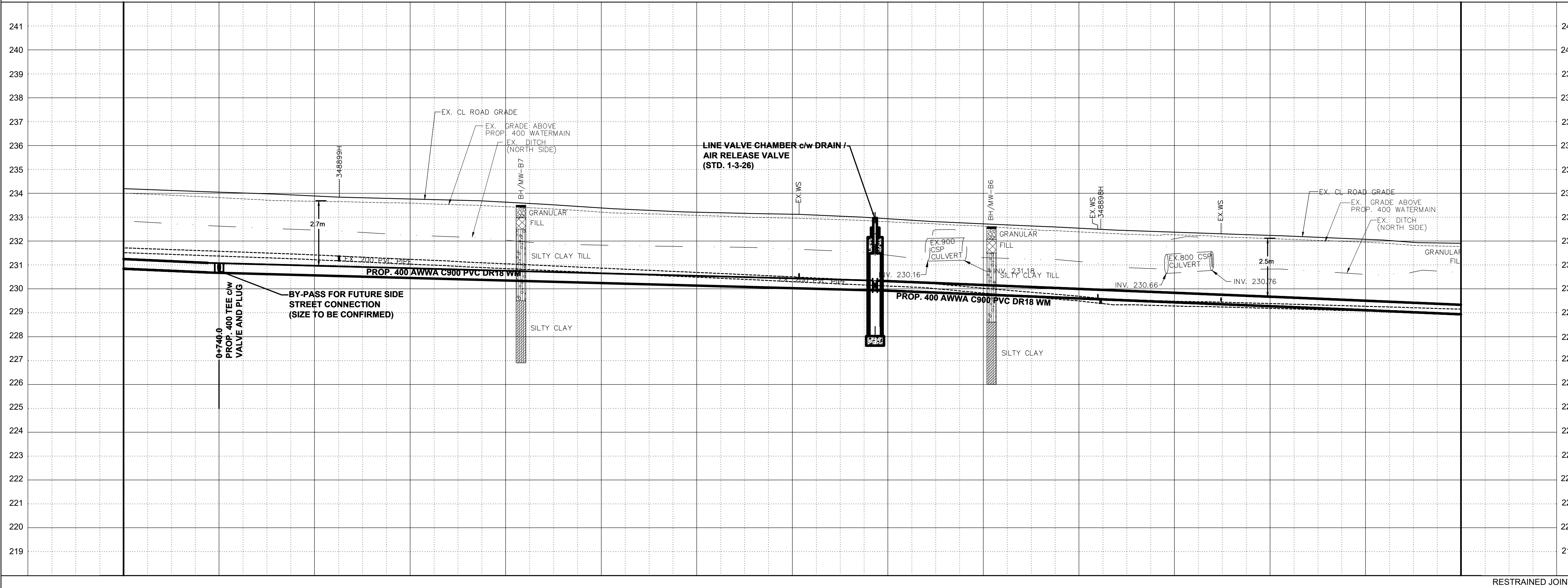
- NOTICE TO CONTRACTOR**
 48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING
- | | |
|---|---------------------------------------|
| THE REGIONAL MUNICIPALITY OF PEEL | CABLE TELEVISION/FIBROPTIC PROVIDERS: |
| CITY OF MISSISSAUGA WORKS DEPT. | BELL CANADA |
| CITY OF BRAMPTON WORKS DEPT. | ENERSOURCE TELECOM |
| TOWN OF CALEDON WORKS DEPT. | HYDRO ONE TELECOM |
| ENBRIDGE INCORPORATED-GAS DISTRIBUTION | ROGERS CABLE |
| ONTARIO MINISTRY OF TRANSPORTATION | ALLSTREAM (ZAYO) |
| ONTARIO CLEAN WATER AGENCY | PSM (PUBLIC SECTOR NETWORK) |
| HYDRO ONE NETWORKS | FUTUREWAY (FCI BROADBAND) |
| ALECTRA UTILITIES | GT FIBER/360 NETWORK INC. |
| TRANS NORTHERN PIPELINE | TELUS COMMUNICATION |
| PEARSON INTERNATIONAL FUEL FACILITIES CORP. | |
| UNION GAS | |



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Region of Peel
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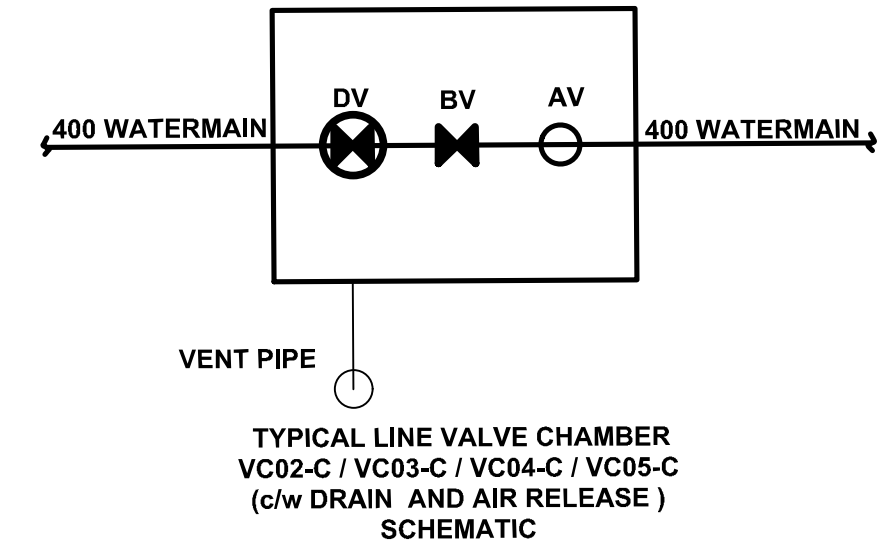
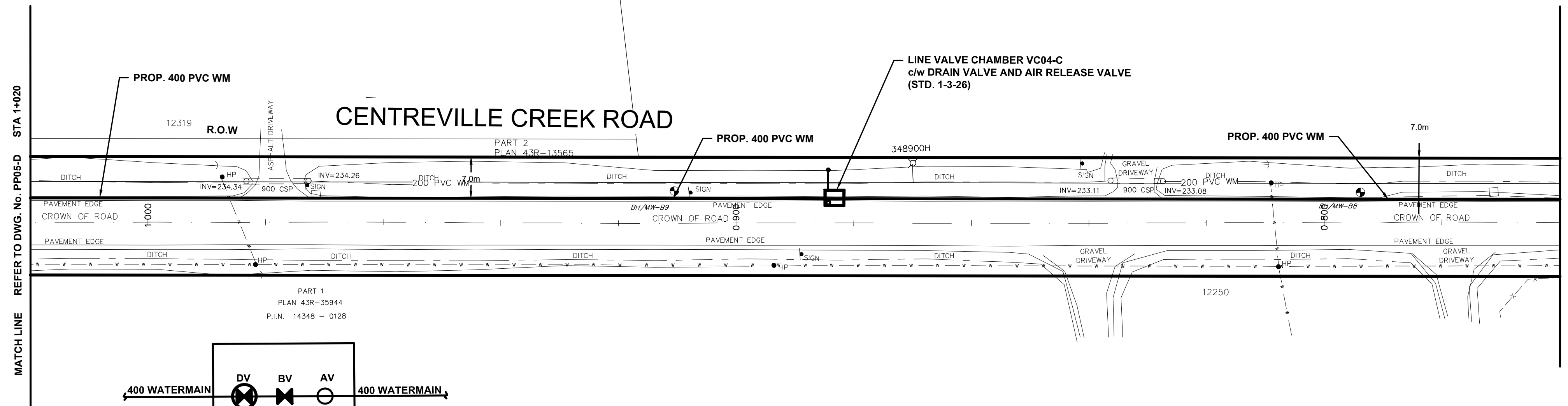
THE CENTREVILLE CREEK
 (FROM MAYFIELD ROAD TO HEALEY ROAD)
 PROP. 400mm WATERMAIN
 STA. 0+480 TO STA. 0+760



230.84	230.75	230.67	230.62	230.56	230.51	230.46	230.40	230.35	230.30	230.24	230.19	230.14	230.08	230.03	229.98	229.92	229.84	229.76	229.68	229.60	229.52	229.44	229.35	229.27	229.19	229.10	229.02	228.93	BOT. EL. OF WM.
234.01	233.92	233.82	233.71	233.66	233.63	233.59	233.52	233.44	233.34	233.21	233.14	233.08	233.00	232.96	232.90	232.81	232.72	232.62	232.48	232.38	232.29	232.26	232.17	232.10	232.03	231.95	231.82	231.77	EX. ROAD ELEV.
0+760	0+750	0+740	0+730	0+720	0+710	0+700	0+690	0+680	0+670	0+660	0+650	0+640	0+630	0+620	0+610	0+600	0+590	0+580	0+570	0+560	0+550	0+540	0+530	0+520	0+510	0+500	0+490	0+480	ROAD CHAINAGE

CAD Area	X-XX	Area	X-XX	Project No.	291199
Checked by	N.L.	Drawn by	A.L.	Date	JULY 2024
Date	JULY 2024	Sheet	6 of 14	Plan No.	PP03-D

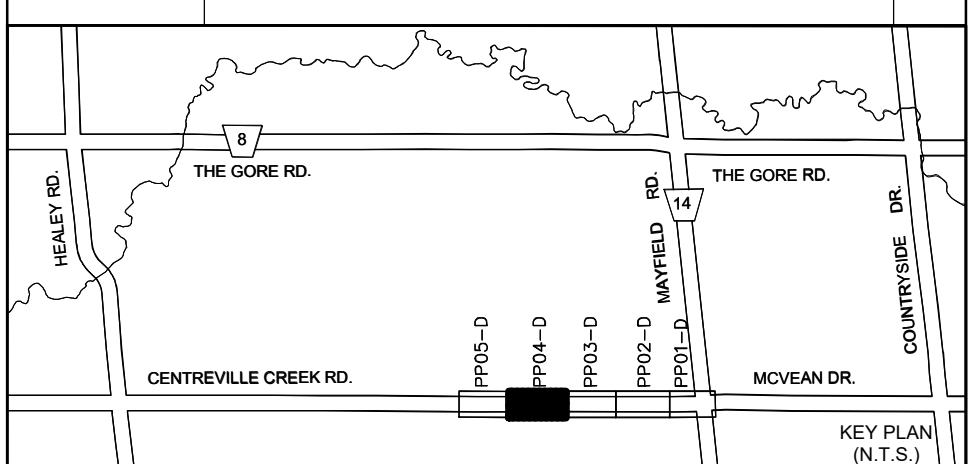
THIS DRAWING TO BE USED FOR WATERMAIN CONSTRUCTION ONLY



THE EXISTING WATER SERVICE CONNECTION IS TO BE LOCATED ON FIELD BY CONTRACTOR DURING CONSTRUCTION AND TO BE ADJUSTED OR PROTECTED AS NEEDED

SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATERMAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
2024-09-16	ISSUED FOR 30% SUBMISSION	C.Z.



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Professional Engineer Seal for H. SARKISIAN, No. 16257, Province of Ontario, dated Sept. 16, 2023.

Designed by: _____
 Approved by: _____

NOTICE TO CONTRACTOR
 48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

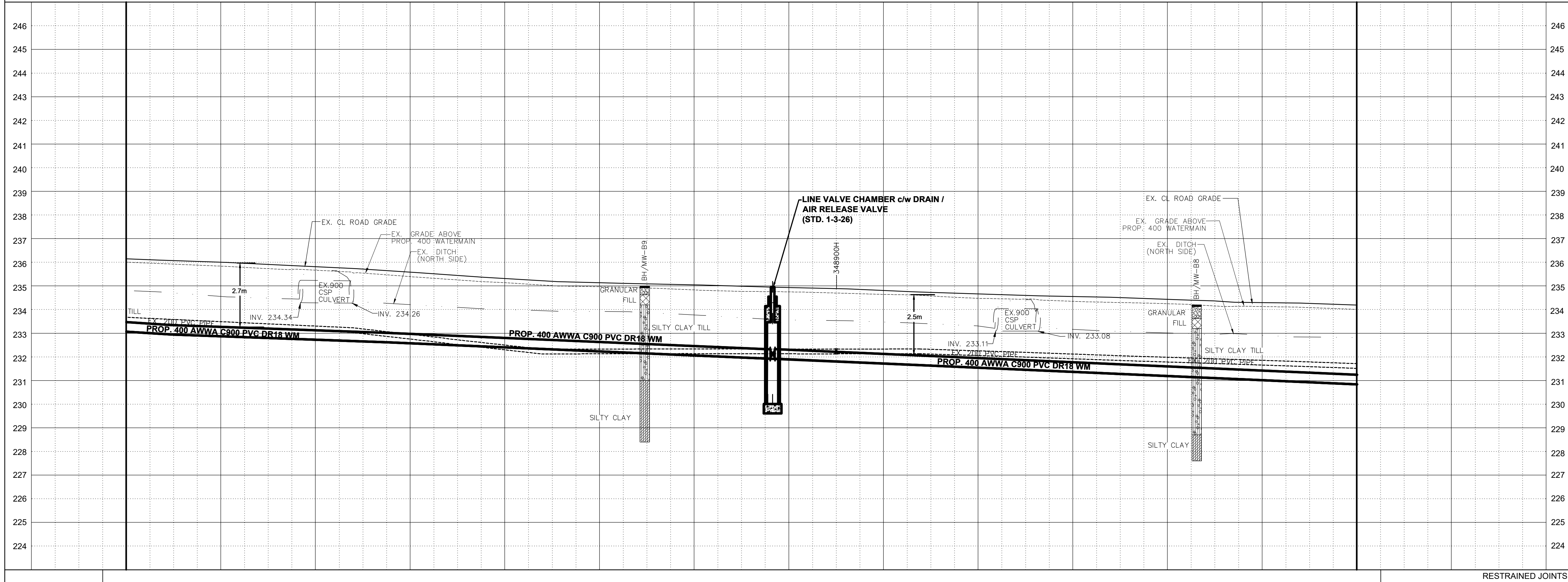
THE REGIONAL MUNICIPALITY OF PEEL	CABLE TELEVISION/FIBROPTIC PROVIDERS:
CITY OF MISSISSAUGA WORKS DEPT.	BELL CANADA
CITY OF BRAMPTON WORKS DEPT.	ENERSOURCE TELECOM
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TRANS NORTHERN PIPELINE	TELUS COMMUNICATION
PEARSON INTERNATIONAL FUEL FACILITIES CORP.	
UNION GAS	

Scale: 10m 0 10 20 30m HORIZONTAL SCALE 1:500
 2m 0 2 4 6m VERTICAL SCALE 1:100

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 6 Ronrose Drive, Concord, Ontario L4K 4R3
 Tel: (905) 738-6100
 Fax: (905) 738-6875
 E-mail: design@schaeffers.com

Region of Peel
 working with you

THE CENTREVILLE CREEK
 (FROM MAYFIELD ROAD TO HEALEY ROAD)
 PROP. 400mm WATERMAIN
 STA. 0+720 TO STA. 1+020



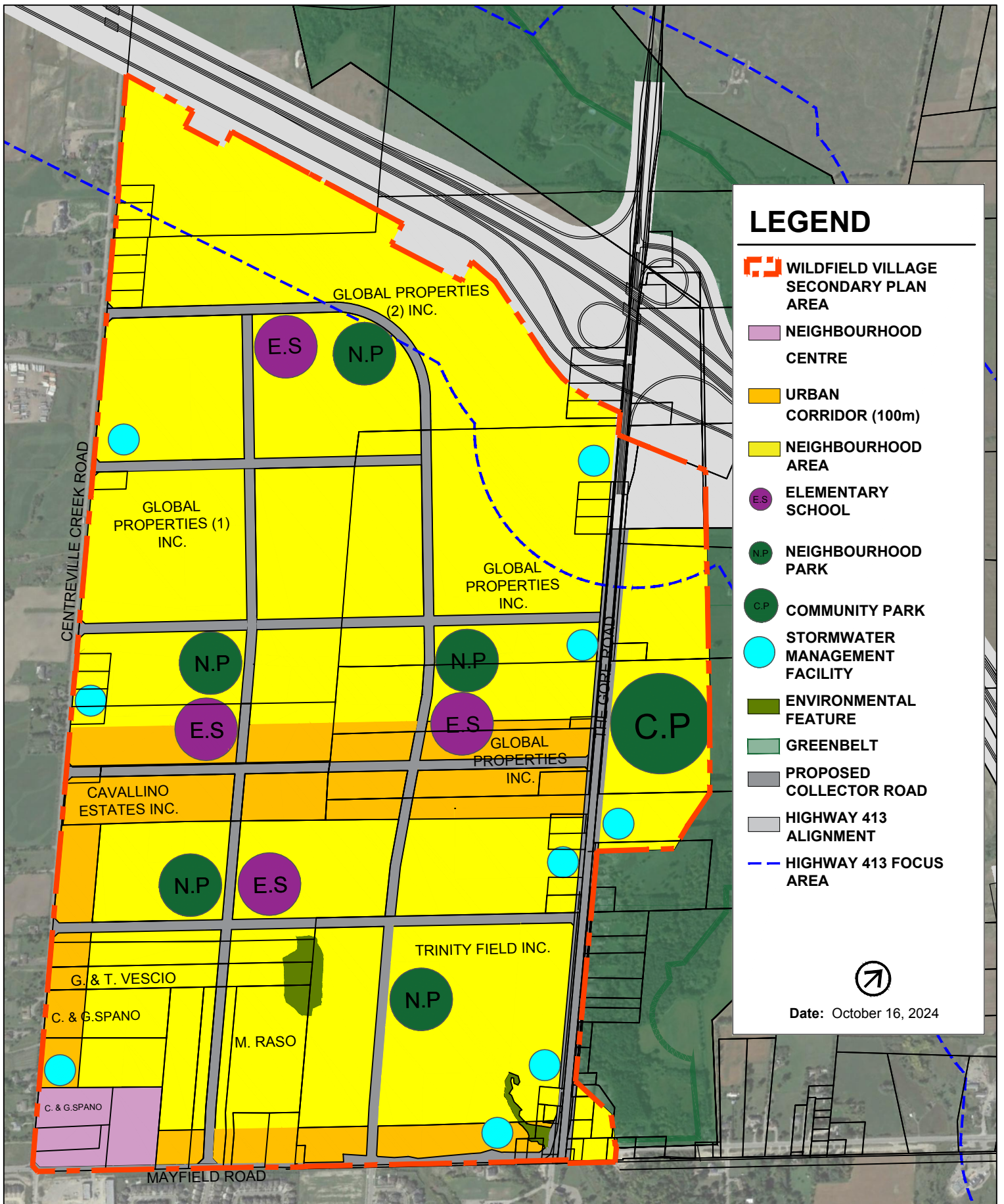
233.07	232.94	232.87	232.80	232.73	232.65	232.58	232.49	232.40	232.32	232.23	232.15	232.06	231.97	231.89	231.80	231.72	231.63	231.54	231.46	231.37	231.28	231.19	231.10	231.02	230.93	230.84	RESTRAINED JOINTS
236.00	235.92	235.84	235.73	235.67	235.54	235.39	235.25	235.14	235.01	234.97	234.91	234.83	234.77	234.75	234.70	234.64	234.57	234.47	234.44	234.35	234.30	234.25	234.15	234.13	234.08	234.01	BOT. EL. OF WM.
1+020	1+010	1+000	0+990	0+980	0+970	0+960	0+950	0+940	0+930	0+920	0+910	0+900	0+890	0+880	0+870	0+860	0+850	0+840	0+830	0+820	0+810	0+800	0+790	0+780	0+770	0+760	EX. ROAD ELEV.
ROAD CHAINAGE																											

CAD Area	X-XX	Area	X-XX	Project No.	291199
Checked by	N.L.	Drawn by	A.L.	Date	JULY 2024
Sheet	7 of 14	Plan No.	PP04-D		

ATTACHMENT C

PRELIMINARY POPULATION ESTIMATES AND SANITARY DESIGN SHEET





LEGEND

-  WILDFIELD VILLAGE SECONDARY PLAN AREA
-  NEIGHBOURHOOD CENTRE
-  URBAN CORRIDOR (100m)
-  NEIGHBOURHOOD AREA
-  E.S. ELEMENTARY SCHOOL
-  N.P. NEIGHBOURHOOD PARK
-  C.P. COMMUNITY PARK
-  STORMWATER MANAGEMENT FACILITY
-  ENVIRONMENTAL FEATURE
-  GREENBELT
-  PROPOSED COLLECTOR ROAD
-  HIGHWAY 413 ALIGNMENT
-  HIGHWAY 413 FOCUS AREA



Date: October 16, 2024



**Sanitary Design Sheet
Wildfield Village
Phase 1
Town of Caledon, Region of Peel**

Minimum Sewer Diameter (mm) = 200 Avg. Domestic Flow (l/cap/day) = 290
 Mannings n = 0.013 Infiltration Rate (l/s/ha) = 0.26
 Minimum Velocity (m/s) = 0.75 Max. Harmon Peaking Factor = 4.0
 Maximum Velocity (m/s) = 3 Min. Harmon Peaking Factor = 2.0
 Minimum Pipe Slope (%) = 0.50 **NOMINAL PIPE SIZE USED**

Note: Population density per sanitary population calculations in this appendix.

Project: Wildfield Village
 Project No. 2630
 Date: 20-Dec-24
 Designed By: D.V.
 Reviewed By: N.D.M.

P:\2630 Wildfield Village\Design\Pipe Design\Sanitary\2630 - Sanitary Sheet Design - External Trunk Sanitary Sizing.xlsx\Design

LOCATION			RESIDENTIAL						INDUSTRIAL/COMMERCIAL/INSTITUTIONAL					FLOW CALCULATIONS								PIPE DATA					
STREET	MANHOLE		AREA (ha)	ACCUM. AREA (ha)	UNITS (#)	DENSITY		RESIDENTIAL POPULATION	ACCUM. RESIDENTIAL POPULATION	AREA (ha)	ACCUM. AREA (ha)	POPULATION DENSITY (p/ha)	FLOW RATE (l/s/ha)	ACCUM. EQUIV. POPULATION	INFILTRATION (L/s)	TOTAL ACCUM. POPULATION	AVG. DOMESTIC FLOW (L/s)	ACCUM. AVG. DOMESTIC FLOW (L/s)	PEAKING FACTOR	PEAKED RESIDENTIAL FLOW (L/s)	ICI FLOW (L/s)	TOTAL FLOW (L/s)	LENGTH (m)	PIPE DIAMETER (mm)	SLOPE (%)	FULL FLOW CAPACITY (L/s)	FULL FLOW VELOCITY (m/s)
	FROM	TO				PER UNIT (p/unit)	PER HA (p/ha)																				
Catchment 101	101	MH1	154.88	154.88	0		112.7	17456	17456	0	0	0	0	0	40.3	17456	58.6	58.6	2.71	158.9	0.0	199.2	100.0	525	0.50	303.9	1.40
Catchment 102	102	MH1	7.75	7.75	0		121.9	945	945	0	0	0	0	0	2.0	945	3.2	3.2	3.82	12.1	0.0	14.1	100.0	200	0.50	23.2	UNDER
The Gore Road	MH1	Plug 1	0	162.63	0			0	18401	0	0	0	0	0	42.3	18401	0.0	61.8	2.69	166.1	0.0	208.4	100.0	600	0.30	336.1	1.19
Catchment 103	103	MH2	50.87	50.87	0		177.1	9008	9008	0	0	0	0	0	13.2	9008	30.2	30.2	3.00	90.7	0.0	103.9	100.0	450	0.50	201.5	1.27
Catchment 104	104	MH2	12.47	12.47	0		121.9	1520	1520	0	0	0	0	0	3.2	1520	5.1	5.1	3.68	18.8	0.0	22.0	100.0	250	0.50	42.0	0.86
The Gore Road	MH2	Plug 2	0	63.34	0			0	10528	0	0	0	0	0	16.5	10528	0.0	35.3	2.93	103.6	0.0	120.1	100.0	525	0.30	235.4	1.09
Catchment 105	105	MH3	37.22	37.22	0		122.1	4545	4545	0	0	0	0	0	9.7	4545	15.3	15.3	3.28	50.1	0.0	59.8	100.0	375	0.50	123.9	1.12
The Gore Road	MH3	Plug 3	0	37.22	0			0	4545	0	0	0	0	0	9.7	4545	0.0	15.3	3.28	50.1	0.0	59.8	100.0	375	0.30	96.0	0.87
Catchment 106	106	MH4	82.74	82.74	0		151.1	12499	12499	0	0	0	0	0	21.5	12499	42.0	42.0	2.86	119.9	0.0	141.4	100.0	450	0.50	201.5	1.27
Catchment 107	107	MH4	1.72	1.72	0		122.1	210	210	0	0	0	0	0	0.4	210	0.7	0.7	4.00	2.8	0.0	3.3	100.0	200	0.50	23.2	UNDER
The Gore Road	MH4	Plug 4	0	84.46	0			0	12709	0	0	0	0	0	22.0	12709	0.0	42.7	2.85	121.6	0.0	143.6	100.0	525	0.30	235.4	1.09

Catchments draining to Outlet 1:

Catchment 101

Land Use	Area (ha)
Neighbourhood Area	143.21

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	121.73	27	4.2	13804
Towns	15%	21.48	50	3.4	3652
Total Equivalent Population					17456

Land Use	Area (ha)
Collector Road	11.67

Catchment 102

Land Use	Area (ha)
Neighbourhood Area	7.75

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	6.59	27	4.2	747
Towns	15%	1.16	50	3.4	198
Total Equivalent Population					945

Total Population to Outlet 1 =	18401
---------------------------------------	--------------

Catchments draining to Outlet 2:

Catchment 103

Land Use	Area (ha)
Neighbourhood Area	12.08

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	10.27	27	4.2	1164
Towns	15%	1.81	50	3.4	308
Total Equivalent Population					1472

Land Use	Area (ha)
Urban Corridor	30.41

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	18.25	50	3.4	3102
Stacked Towns	30%	9.12	90	3.4	2792
Apartments	10%	3.04	225	2.4	1642
Total Equivalent Population					7536

Land Use	Area (ha)
Collector Road	8.38

Catchment 104

Land Use	Area (ha)
Neighbourhood Area	12.47

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	10.5995	27	4.2	1202
Towns	15%	1.87	50	3.4	318
Total Equivalent Population					1520

Total Population to Outlet 2 =	10528
---------------------------------------	--------------

Catchments draining to Outlet 3:

Catchment 105

Land Use	Area (ha)
Neighbourhood Area	32.39

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	27.53	27	4.2	3122
Towns	15%	4.86	50	3.4	826
Total Equivalent Population					3948

Land Use	Area (ha)
Collector Road	2.42

Land Use	Area (ha)
Urban Corridor	2.41

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	1.45	50	3.4	246
Stacked Towns	30%	0.72	90	3.4	221
Apartments	10%	0.24	225	2.4	130
Total Equivalent Population					597

Total Population to Outlet 3 =	4545
---------------------------------------	-------------

Catchments draining to Outlet 4:

Catchment 106

Land Use	Area (ha)
Neighbourhood Area	57.11

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	48.54	27	4.2	5505
Towns	15%	8.57	50	3.4	1456
Total Equivalent Population					6961

Land Use	Area (ha)
Neighbourhood Centre	6.66

Unit Type Mix	Unit Mix	Area (ha)	P/ha	Units/ha	Population/Unit	Population
Apartments	50%	3.33	-	250	2.4	1998
Retail	50%	3.33	50	-	0	167
Total Equivalent Population						2165

Land Use	Area (ha)
Urban Corridor	13.61

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	8.17	50	3.4	1388
Stacked Towns	30%	4.08	90	3.4	1249
Apartments	10%	1.36	225	2.4	735
Total Equivalent Population					3373

Land Use	Area (ha)
Collector Road	3.22

Land Use	Area (ha)
Environmental Feature	2.16

Catchment 107

Land Use	Area (ha)
Neighbourhood Area	1.72

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	1.46	27	4.2	166
Towns	15%	0.26	50	3.4	44
Total Equivalent Population					210

Total Population to Outlet 4 =	12708
---------------------------------------	--------------

SUBJECT LANDS SUMMARY

<i>Land Use</i>	<i>Area (ha)</i>	<i>Population</i>
Neighbourhood Area	266.73	32512
Neighbourhood Centre	6.66	2165
Urban Corridor	46.43	11505
Total Area (ha)	319.82	46182

<i>Land Use</i>	<i>Area (ha)</i>	<i>Population</i>
Collector Road	25.69	0

Note: Land Use Population Densities per Population counts provided by Arutip in April 2024

Note: Sanitary Populations do not include park or school blocks to be conservative while not having up to date areas for the blocks.

Block 1

Land Use	Area (ha)
Neighbourhood Area	13.71

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	11.65	27	4.2	1322
Towns	15%	2.06	50	3.4	350
Total Equivalent Population					1671

Total Population Block 1 = 1671

Block 2

Land Use	Area (ha)
Neighbourhood Area	15.03

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	12.78	27	4.2	1449
Towns	15%	2.25	50	3.4	383
Total Equivalent Population					1832

Total Population Block 2 = 1832

Block 3

Land Use	Area (ha)
Neighbourhood Area	16.00

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	13.60	27	4.2	1542
Towns	15%	2.40	50	3.4	408
Total Equivalent Population					1950

Total Population Block 3 = 1950

Block 4

Land Use	Area (ha)
Neighbourhood Area	16.85

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	14.32	27	4.2	1624
Towns	15%	2.53	50	3.4	430
Total Equivalent Population					2054

Total Population Block 4 = 2054

Block 5

Land Use	Area (ha)
Neighbourhood Area	9.48

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	8.06	27	4.2	914
Towns	15%	1.42	50	3.4	242
Total Equivalent Population					1156

Land Use	Area (ha)
Urban Corridor	5.39

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	3.23	50	3.4	550
Stacked Towns	30%	1.62	90	3.4	495
Apartments	10%	0.54	225	2.4	291
Total Equivalent Population					1336

Total Population Block 5 = 2491

Block 6

Land Use	Area (ha)
Neighbourhood Area	10.38

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	8.82	27	4.2	1001
Towns	15%	1.56	50	3.4	265
Total Equivalent Population					1265

Land Use	Area (ha)
Urban Corridor	4.67

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	2.80	50	3.4	476
Stacked Towns	30%	1.40	90	3.4	429
Apartments	10%	0.47	225	2.4	252
Total Equivalent Population					1157

Total Population Block 6 = 2422

Block 7

Land Use	Area (ha)
Neighbourhood Area	10.43

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	8.87	27	4.2	1005
Towns	15%	1.56	50	3.4	266
Total Equivalent Population					1271

Land Use	Area (ha)
Urban Corridor	4.27

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	2.56	50	3.4	436
Stacked Towns	30%	1.28	90	3.4	392
Apartments	10%	0.43	225	2.4	231
Total Equivalent Population					1058

Total Population Block 7 = 2329

Block 8

Land Use	Area (ha)
Neighbourhood Area	30.02

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	25.52	27	4.2	2894
Towns	15%	4.50	50	3.4	766
Total Equivalent Population					3659

Total Population Block 8 = 3659

Block 9

Land Use	Area (ha)
Neighbourhood Area	35.79

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	30.42	27	4.2	3450
Towns	15%	5.37	50	3.4	913
Total Equivalent Population					4362

Total Population Block 9 = 4362

Block 10

Land Use	Area (ha)
Neighbourhood Area	8.50

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	7.23	27	4.2	819
Towns	15%	1.28	50	3.4	217
Total Equivalent Population					1036

Land Use	Area (ha)
Urban Corridor	7.67

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	4.60	50	3.4	782
Stacked Towns	30%	2.30	90	3.4	704
Apartments	10%	0.77	225	2.4	414
Total Equivalent Population					1901
Total Population Block 10 =					2937

Block 11

Land Use	Area (ha)
Neighbourhood Area	10.07

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	8.56	27	4.2	971
Towns	15%	1.51	50	3.4	257
Total Equivalent Population					1227

Land Use	Area (ha)
Urban Corridor	5.13

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	3.08	50	3.4	523
Stacked Towns	30%	1.54	90	3.4	471
Apartments	10%	0.51	225	2.4	277
Total Equivalent Population					1271
Total Population Block 11 =					2499

Block 12

Land Use	Area (ha)
Neighbourhood Area	11.42

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	9.71	27	4.2	1101
Towns	15%	1.71	50	3.4	291
Total Equivalent Population					1392

Land Use	Area (ha)
Urban Corridor	5.69

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	3.41	50	3.4	580
Stacked Towns	30%	1.71	90	3.4	522
Apartments	10%	0.57	225	2.4	307
Total Equivalent Population					1410
Total Population Block 10 =					2802

Block 13

Land Use	Area (ha)
Neighbourhood Area	14.86

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	12.63	27	4.2	1432
Towns	15%	2.23	50	3.4	379
Total Equivalent Population					1811

Land Use	Area (ha)
Urban Corridor	5.08

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	3.05	50	3.4	518
Stacked Towns	30%	1.52	90	3.4	466
Apartments	10%	0.51	225	2.4	274
Total Equivalent Population					1259

Land Use	Area (ha)
Neighbourhood Centre	6.66

Unit Type Mix	Unit Mix	Area (ha)	P/ha	Units/ha	Population/Unit	Population
Apartments	50%	3.33	-	250	2.4	1998
Retail	50%	3.33	50	-	0	167
Total Equivalent Population						2165

Total Population Block 13 = 5235

Block 14

Land Use	Area (ha)
Neighbourhood Area	18.71

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	15.90	27	4.2	1803
Towns	15%	2.81	50	3.4	477
Total Equivalent Population					2281

Land Use	Area (ha)
Urban Corridor	4.18

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	2.51	50	3.4	426
Stacked Towns	30%	1.25	90	3.4	384
Apartments	10%	0.42	225	2.4	226
Total Equivalent Population					1036

Land Use	Area (ha)
Environmental Feature	1.64

Total Population Block 14 = 3316

Block 15

Land Use	Area (ha)
Neighbourhood Area	23.54

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	20.01	27	4.2	2269
Towns	15%	3.53	50	3.4	600
Total Equivalent Population					2869

Land Use	Area (ha)
Urban Corridor	4.35

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Townhouses	60%	2.61	50	3.4	444
Stacked Towns	30%	1.31	90	3.4	399
Apartments	10%	0.44	225	2.4	235
Total Equivalent Population					1078

Land Use	Area (ha)
Environmental Feature	0.52

Total Population Block 15 =	3947
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Block 16

Land Use	Area (ha)
Neighbourhood Area	20.22

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	17.19	27	4.2	1949
Towns	15%	3.03	50	3.4	516
Total Equivalent Population					2465

Total Population Block 16 =	2465
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Block 17

Land Use	Area (ha)
Neighbourhood Area	1.72

Unit Type Mix	Unit Mix	Area (ha)	Units/ha	Population/Unit	Population
Singles	85%	1.46	27	4.2	166
Towns	15%	0.26	50	3.4	44
Total Equivalent Population					210

Total Population Block 17 =	210
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SUBJECT LANDS SUMMARY

Land Use	Area (ha)	Population
Neighbourhood Area	266.73	32512
Neighbourhood Centre	6.66	2165
Urban Corridor	46.43	11505
Total Area (ha)	319.82	46182

Note: Land Use Population Densities per Population counts provided by Arutip in April 2024

Note: Watermain Populations do not include park or school blocks to be conservative while not having up to date areas for the blocks.