TOWN OF CALEDON
PLANNING
RECEIVED
August 15, 2025

INTERIM STORMWATER FACILITY OPERATIONS & MAINTENANCE MANUAL

HUMBER STATION DISTRIBUTION CENTRE

TOWN OF CALEDON
REGION OF PEEL

PREPARED FOR:

PLD HUMBER STATION INVESTMENT LP

PREPARED BY:

C.F. CROZIER & ASSOCIATES INC.
2800 HIGH POINT DRIVE, SUITE 100
MILTON, ON L9T 6P4

AUGUST 2025

CFCA FILE NO. 0624-6777

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CELEBRATING 20 YEARS · SINCE 2004 · CROZIER

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1.0 Introduction

C.F. Crozier & Associates Inc. (Crozier) was retained by PLD Humber Station Investment LP to undertake the detailed engineering design in support of a proposed industrial development located at 12519-12713 Humber Station Road within the Humber Station Employment Area in the Town of Caledon. For orientation purposes of this report, Humber Station Road is considered to be running north to south, and Street A is east to west. The site is bordered to the east by industrial lands, agricultural lands planned for industrial development to the north and south, and Humber Station Road to the west. Under existing conditions, the property consists primarily of agricultural fields with residential dwellings fronting Humber Station Road.

The property occupies 78.5 hectares and is located east of Humber Station Road approximately 0.70 m south of Healy Road and 1.2 km north of Mayfield Road. The development of the property will be split into phases, with Phase 1A occupying the northeast side of the site, Phase 1B occupying the northwest side of the site, and Phase 2 occupying the south side of the site. Access for vehicles and trucks is proposed via two driveway accesses to a proposed 'Street A' (designed by others) which will run east-west through the property area connecting Phase 1A to Humber Station Road.

The following Operations & Maintenance Manual provides general instructions for the operation and maintenance of the interim SWM facility. The maintenance procedures and protocols described herein will assist with the long-term effectiveness of the SWM facility until ultimate conditions are established.

2.0 Description of Stormwater Management System

The infrastructure designed to manage stormwater and site drainage for the subject development complies with the current (as of August 2025) policies and standards of various agencies including:

- Town of Caledon (Town)
- Region of Peel (Region)
- Toronto and Region Conservation Authority (TRCA)
- Ministry of the Environment, Conservation and Parks (MECP)
- Ministry of Natural Resources and Forestry (MNRF)

The primary stormwater management methods implemented to meet these standards are described below.

The development is required to provide quantity control, infiltration for water balance and onsite retention for erosion per Section 4.1 of the Stormwater Management Implementation Report (Crozier, August 2025). The stormwater management facilities for the site include five (5) underground storage tanks for quantity control and three (3) underground infiltration tanks for water balance and erosion mitigation. The rooftop is controlled by roof drains to the capacity of the roof leaders. The inspection and maintenance of the private storm system, including the underground storage tanks and roof drains, will be completed by Prologis.

Under the proposed conditions, 2.31 ha along the east of Phase 1A remains undeveloped and sheet flows towards Clarkway Drive Tributary, mimicking the existing conditions. The remaining Phase 1A development area will drain to the future municipal SWM Pond 3 via the future municipal sewer along Street A in ultimate conditions. This infrastructure will be designed by others per the

recommendations in the Phase 2 SWM Report (Schaeffers, June 2025). However, Phase 1A construction is ahead of the Humber Station Villages Employment Area construction, therefore SWM Pond 3 is not yet available. During interim conditions, Phase 1A outlets to a SWM pond prior to discharging into the Clarkway Drive Tributary at the southeast corner of the property. Refer to **Drawing C200** for the overall servicing plan details.

3.0 Stormwater Management Pond

The interim SWM facility is located at the southeast corner of the site, south of Street A and west of the Clarkway Drive Tributary. The SWM facility is designed as a wet pond and includes a main cell and forebay. The facility provides stormwater controls for 27.94 ha of developed lands which are approximately 98% impervious.

A multi-stage outlet control provides the required extended detention and quantity (peak flow) control. The multi-stage outlet control consists of a circular orifice to control the extended detention component of the pond, and above the extended detention water level, a rectangular orifice and rectangular weir control the quantity components of the pond volume. Details of the proposed outlet controls are summarized in Error! Reference source not found..

Table 1: SWM Facility Outlet Controls

Extended Detention Control	Active Storage Controls	
Circular Orifice	**Rectangular Weir**	**Broad Crested Weir[1]**
235 mm diameter Invert = 230.60 masl	1.50 m wide Invert = 231.00 masl	10 m wide Invert = 232.50 masl

Notes: 1- Broad Crested Weir is the emergency spillway

The controlled flows from the interim SWM facility discharge southeast towards the Clarkway Drive Tributary.

Refer to drawings **C607** and **C608** for pond details.

4.0 INSPECTION AND MAINTENANCE

The following sections outline the inspection and maintenance procedures that should be followed from the time the SWM facility is constructed. The Town's Inspection, Maintenance and Monitoring Requirements guideline includes a checklist that should be referenced in conjunction with this manual. The municipality will assume responsibility for the operation and maintenance of the SWM facility following the full build-out maintenance period of the development, as established by the Town of Caledon. The developer will be responsible for inspection and maintenance until such time.

Inspections are to be conducted at least twice a year and after every significant storm event during the first two years after construction to check for proper function. After this period, inspections should be conducted annually. Maintenance and monitoring requirements include monitoring of the facility a minimum 2 years prior to cleanout and a minimum 2 years post-facility cleanout per Town standards.

It should be noted that annual inspection reporting to the Town is required and should include a summary and records of all inspections that have occurred in the reporting period.

Sediment depths should be monitored annually with removal after accumulations reach either 50% of the forebay capacity or a 5% reduction in TSS removal efficiency has occurred. Estimates of timing for sediment removal are calculated in **Section 4.1.6**.

A suggested inspection routine is listed in **Table 2**. **Table 3** provides a list of potential problems which may be identified during routine inspections, with recommended solutions.

Table 2: Inspection Routine for SWM Pond

Inspected Component	Inspection details
Trash	Look for trash accumulating in the pond block or around the pond outfalls.
Safety features	Make sure all safety features are in place and in good condition.
Accesses Road	Look for cracks or potholes.
Vegetation	All areas of the pond should have dense, healthy vegetation. Look for dying vegetation or bare areas.
Bank erosion	Look for signs of erosion along the pond banks.
Inlet (s)	Check inlet headwalls / pipes are in good condition and no sediment/trash buildup is present. Check the condition of erosion protection.
Outlet control structures	Check the structure for cracks and damage. Look inside structure (do not enter the structure without proper training and equipment) to check for debris, sediment build up or signs the pipes are blocked.
Outfall	Check outfall headwalls / pipes are in good condition and no sediment/trash buildup is present. Check the condition of erosion protection.

Table 3: Observation and Maintenance Tasks for SWM Pond

Observation	Inspected Component	Potential Cause	Maintenance Required
Water level higher than normal several days after a storm. Recall that the facility may take several days to fully draw down under normal conditions.	Outlet structure	Blockage of outlet structure	Clear blockage by removing trash and/or sediment.
Water level lower than the normal permanent pool elevation.	Inlet structure	Pond evaporation during prolonged drought, or blockage of inlet structure(s)	Clear blockage by removing trash and/or sediment.
Surrounding vegetation is in poor condition; lack of aquatic vegetation; easy access to open water.	SWM facility vegetation	Natural die off of vegetation	Re-planting in affected areas.
Elevated sediment depth in SWM facility.	Sediment forebay	Expected sediment accumulation	Using a graduated pole, check depth in sediment forebay; if sediment depth is > 50% of forebay depth, sediment removal is required.

During these inspections, if an oily sheen or abnormal coloring of the water in the facility is noted it may indicate that an industrial spill may have occurred. MOE Spills Action Centre should be contacted immediately; refer to contact information in **Appendix A**.

4.1 Maintenance Features

4.1.1 Safety

The SWM facility has been designed while considering public safety. The SWM block contains fencing along the outside block boundary to discourage public access. Pond cells have been graded with maximum side slopes of 3:1 with 5:1 grading for 3 m on each side of the normal water level. A warning sign is installed at the entrance of the SWM facility per Town Standard 1101. Bollards are also installed at the entrance of the SWM facility to block unintended vehicular access, except for maintenance purposes. Grates are installed on all pipes to prevent animals and debris from entering structures.

If any of the pond safety features are missing or damaged, repairs must be completed in a timely manner to ensure the safe operation of the facility.

4.1.2 Access

A 5.0 m wide maintenance access road is located adjacent to the SWM pond. The access road will facilitate access to the forebay and outlet structures for maintenance. Refer to **Drawing C607** for details.

4.1.3 Grass Cutting

Grass should remain uncut to further enhance water quality and discourage the formation of habitat for geese. Vegetation may be thinned at the inlet and outlet if it is blocking flows from entering/exiting the pond.

4.1.4 Trash Removal

Annual "spring cleanup" should be conducted to remove accumulated trash from the SWM facility including the emergency spillway. Further trash removal may be required as determined by regular inspections.

4.1.5 Sediment Removal

Sediment removal is considered a major maintenance operation and requires specialized equipment and planning. Sediment accumulation can be measured using a graduated pole to check the sediment depth in the forebay. It is recommended that sediment accumulation be checked as part of the regular inspection to gain an understanding of how quickly sediment will accumulate in the pond. Bathymetric surveys can be used to obtain a better understanding of the accumulation prior to a pond clean out. Removal of sediment from the forebays should be conducted when accumulation reaches either 50% of the forebay capacity or when the sediment removal capacity has decreased by 5% (i.e. to 75% TSS Removal Efficiency), whichever is reached first.

The annual sediment loading rates have been calculated for the SWM facilities per Table 6.3 of the Ministry of Environment (MECP) SWM Planning & Design (SWMPD) Manual and are summarized in **Table 4** below. Refer to **Appendix B** for calculation details.

Table 4: Sediment Loading Rates

Pond	Area (ha)	Imperviousness (%)	Annual Sediment Loading (m^3/year)
Interim SWM Pond	27.82	98	128.7

50% of Forebay Capacity
The forebay provides a total permanent pool volume of 6,305 m^3, therefore a sediment accumulation of 3,153 m^3 would reduce the forebay capacity to below 50% of its design volume. Based on annual sediment accumulation rates, a minimum cleanout frequency of 31 years (or less) would be required to maintain forebay volume capacity above 50%.

75% TSS Removal Efficiency
The SWM Pond is currently designed to exceed the required 80% Total Suspended Solids (TSS) removal efficiency (corresponding to a 16,832 m^3 permanent pool volume). Sediment accumulation resulting in a 5% decrease in removal efficiency would result in a 75% TSS removal efficiency being provided by the wet pond. Interpolating from Table 3.2 of the Ministry of the Environment, Conservation and Parks (MECP) SWM Planning and Design Manual (SWMPD), a 75% TSS removal efficiency is achieved if a 14,2589 m^3 permanent pool volume is provided. Based on annual sediment loading rates, a minimum cleanout frequency of 138 years (or less) would be required to prevent a decrease in TSS removal efficiency of 5%.

Based on the above calculations, a decrease of 50% of the forebay capacity is reached first. Even though the calculations show that removal of sediment from the SWM Pond should be conducted every 31 years, pond cleanout should occur every 10 – 15 years at a minimum.

Sediment accumulation calculations are provided in **Appendix B**.

4.1.6 Sediment Drying Area

In compliance with the Town of Caledon standards, a sediment drying area has been provided to stockpile excavated sediment from the forebay for drying prior to haulage. The sediment drying area is located southwest of the forebay. The stockpile shall not exceed a maximum height of 0.5 m with 4:1 side slopes to ensure it remain stable.

Sediment removal should be conducted using typical grading/excavation equipment such as backhoes and hydraulic dredging. Samples of all sediment removed from the facility must be tested for any hazardous materials to determine appropriate off-site disposal locations.

4.1.7 Outlet Structure

The outlet structure is located within control manhole 28 (STM MH28) at the south side of the SWM Pond. The control manhole and emergency spillway are accessible from the SWM access road. Refer to **Drawing C608** and **C609** for details.

The outlet structure should be checked for cracks or damage to the concrete each year. The inside of the structure should be inspected from the surface, checking for sediment accumulation, trash or other items which may block the outlet controls or pipes. Care should be taken when removing blockages as water levels may rise or drop quickly when blockage is removed. Do not enter the outlet structure without the appropriate confined space training and equipment.

5.0 Contact Information

A list of agencies, manufacturers, and maintenance companies involved with this project and contact numbers are provided in **Appendix A**.

6.0 References

This O&M Manual was developed based on recommendations from:

1. *Development Standards Manual,* Town of Caledon (2019)
2. *Public Works Stormwater Design Criteria and Procedural Manual,* Region of Peel (2019)
3. *Stormwater Planning and Design Manual,* Ministry of the Environment (2003)
4. *Low Impact Development Stormwater Management Inspection and Maintenance Guide,* Toronto and Region Conservation Authority (2016)

Should you have any questions regarding the operations and maintenance recommendations discussed within this report, please contact the undersigned.

Yours truly,

C.F. CROZIER & ASSOCIATES INC.

M. Findlay

Maggie Findlay, P.Eng.
Project Engineer

/MF

C.F. CROZIER & ASSOCIATES INC

Rebecca Archer, P.Eng.
Senior Project Engineer

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APPENDIX A

Contact Information for Agencies

CONTACT INFORMATION FOR AGENCIES

Agency	Contact Information
Town of Caledon	6311 Old Church Road Caledon, ON L7C 1J6 Tel: (905) 584-2272 EXT 2233
Region of Peel	7120 Hurontario Street Mississuaga, ON L5W 1N4 Tel: (905) 791-7800
MECP Spill Action Centre	5775 Yonge Street 5th floor North York, Ontario M2M 4J1 Toll Free: 1-800-268-6060 Tel: (416) 325-3000 Fax: (416) 325-3011
C.F. Crozier & Associates Inc.	2800 High Point Drive, Suite 100 Milton, Ontario L9T 6P4 Tel: (905) 875-0026

Routine Operational Condition Inspection Checklist Template

Project Details and Inspection Conditions:

Facility Name/Number:	
Alias Name:	
Date of Inspection (YYYY/MM/DD):	
Time of Inspection (24-hour time with start and ends (IE 1420hrs - 1450hrs):	
Weather:	
Temperature (Celsius):	
Date of Last Rainfall:	
Amount of Last Rainfall:	
Property Classification:	
Type of Practice:	
Sampling Conducted?	
Name of Inspector (include company name if not a Town inspector):	
Date of most recent previous inspection:	
Corrective action taken since previous inspection:	
Other Comments:	

Inspection Scoring:

N/A	Not applicable
N/I	Not inspected
0	Not a problem
1	Monitor (potential for future problem exists)
2	Routine maintenance required
3	Immediate repair necessary
4	Capital Improvement Required

DRAFT

APPENDIX B

Sediment Accumulation Calculations

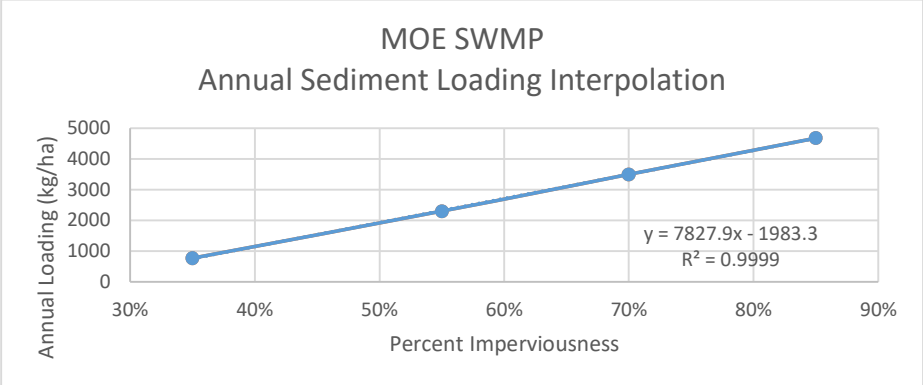
Project No.:	624-6777
File No.:	Prologis Humber Station
Date:	25-Jul-2025
Prepared by:	MF

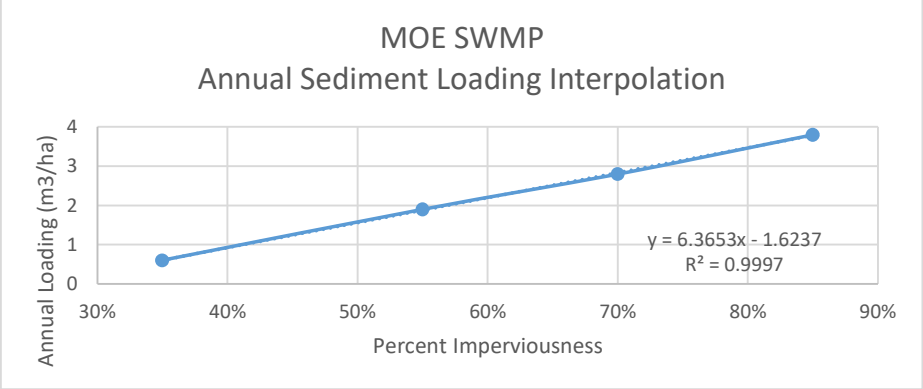
Sediment Loading Calculations

Drainage Area to SWM Pond =	27.94	ha
Percent Imperviousness =	97.9%	
Annual Sediment Loading =	**4.61**	**m^3/ha/year**
Annual Sediment Loading =	**128.7**	**m^3/year**

MOE 2003 SWMP Manual: Annual Sediment Loadings*			
Catchment Imperviousness	**Annual Loading (kg/ha)**	**Wet Density (kg/ha)**	**Annual Loading (m3/ha)**
35%	770	1230	0.6
55%	2300	1230	1.9
70%	3495	1230	2.8
85%	4680	1230	3.8
97.9%	***5680***	1230	**4.61**

* Table 6.3 from the MOE SWMP Planning & Design Manual, 2004, pg 6-13





Project No.:	624-6777
File No.:	Prologis Humber Station
Date:	25-Jul-2025
Prepared by:	MF

Clean-out Frequency Calculations (Forebay Volume Reduced by 50%)

Forebay Volume Reduced by 50%

Total SWM Pond Permanent Pool Forebay Volume =	6,305	m^3
50% of SWM Pond Forebay Volume =	3,153	m^3
Annual Sediment Loading =	128.7	m^3/year
Average annual TSS removal =	80%	
Sedment Accumulation =	103.0	m^3/year
Number of Years of Sediment Accumulation reducing the Pond Forebay Volume by 50% =	**31**	**years**

CROZIER CONSULTING ENGINEERS

Project No.: 624-6777
File No.: Prologis Humber Station
Date: 25-Jul-2025
Prepared by: MF

Clean-out Frequency Calculations

Drainage Parameters

Area to SWM Pond =	27.94	ha
Percent Imperviousness =	98.0%	

Quality Pond Volume (75% TSS Removal)

Storage Volume =	132	m^3 / ha
Extended Detention =	40	m^3 / ha
Permanent Pool =	92.1	m^3 / ha
Required Permanent Pool Volume (75% TSS Removal) =	**2,574**	**m^3**

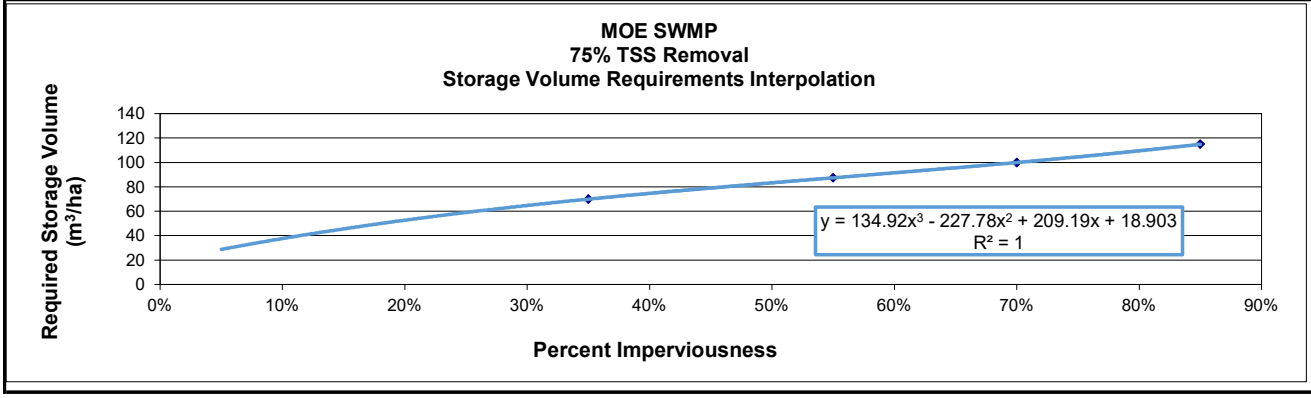
Clean-Out Frequency

Constructed Permanent Pool Volume =	16,832	m^3
Permanent Pool Volume (75% TSS Removal) =	2,574	m^3
Reduction in Permanent Pool Volume =	14,258	m^3
Annual Sediment Loading =	129	m^3/year
Annual Accumulation in Forebay with Design Removal Rate =	103	m^3/year
Estimated Number of Years of Sediment Accumulation to Reduce TSS Removal Efficiency by 5% =	**138**	**years**

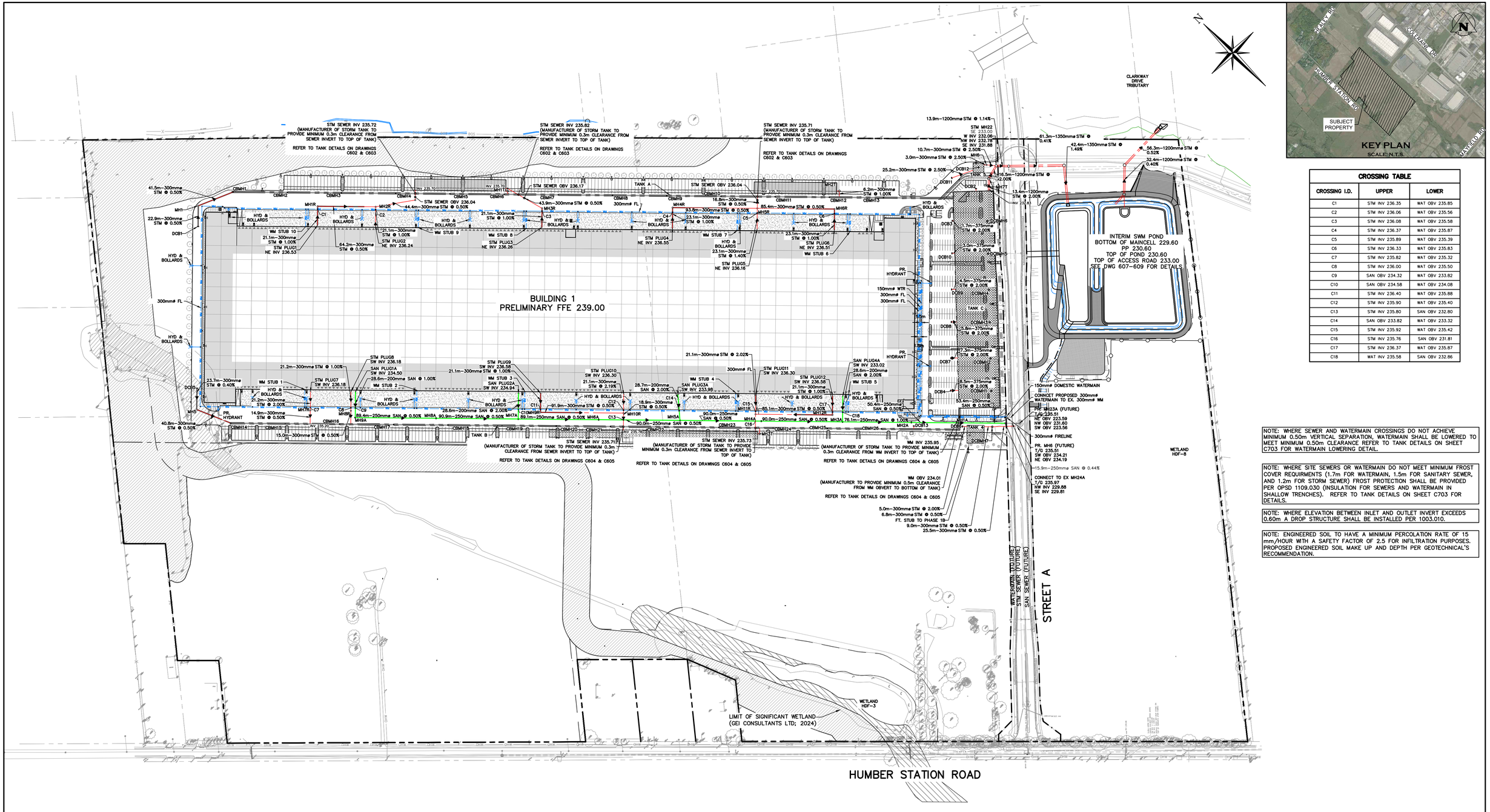
MOE 2003 SWMP Manual: Water Quality Storage Requirements based on Receiving Waters *

PROTECTION LEVEL	SWMP Type	STORAGE VOLUME (m^3 / ha) FOR IMPERVIOUS LEVEL				
		35%	55%	70%	85%	98.0%
Enhanced (80% TSS Removal)	Wetland	80	105	120	140	
5% Reduction in TSS Removal (75% TSS Removal)	Wetland	*70*	*87.5*	*100*	*115*	***132***
Normal (70% TSS Removal)	Wetland	60	70	80	90	
Basic (60% TSS Removal)	Wetland	60	60	60	60	

* Table 3.2 from the MOE SWMP Planning & Design Manual, 2004, pg 3-10



DRAWINGS



CROSSING TABLE		
CROSSING I.D.	UPPER	LOWER
C1	STM INV 236.35	WAT OBV 235.85
C2	STM INV 236.06	WAT OBV 235.56
C3	STM INV 236.08	WAT OBV 235.58
C4	STM INV 236.37	WAT OBV 235.87
C5	STM INV 235.89	WAT OBV 235.39
C6	STM INV 236.33	WAT OBV 235.83
C7	STM INV 235.82	WAT OBV 235.32
C8	STM INV 236.00	WAT OBV 235.50
C9	SAN OBV 234.32	WAT OBV 233.82
C10	SAN OBV 234.58	WAT OBV 234.08
C11	STM INV 236.40	WAT OBV 235.88
C12	STM INV 235.90	WAT OBV 235.40
C13	STM INV 235.80	SAN OBV 232.80
C14	SAN OBV 233.82	WAT OBV 233.32
C15	STM INV 235.92	WAT OBV 235.42
C16	STM INV 235.76	SAN OBV 231.81
C17	STM INV 236.37	WAT OBV 235.87
C18	WAT INV 235.58	SAN OBV 232.86

NOTE: WHERE SEWER AND WATERMAIN CROSSINGS DO NOT ACHIEVE MINIMUM 0.50m VERTICAL SEPARATION, WATERMAIN SHALL BE LOWERED TO MEET MINIMUM 0.50m CLEARANCE REFER TO TANK DETAILS ON SHEET C703 FOR WATERMAIN LOWERING DETAIL.

NOTE: WHERE SITE SEWERS OR WATERMAIN DO NOT MEET MINIMUM FROST COVER REQUIRMENTS (1.7m FOR WATERMAIN, 1.5m FOR SANITARY SEWER, AND 1.2m FOR STORM SEWER) FROST PROTECTION SHALL BE PROVIDED PER OPSD 1109.030 (INSULATION FOR SEWERS AND WATERMAIN IN SHALLOW TRENCHES). REFER TO TANK DETAILS ON SHEET C703 FOR DETAILS.

NOTE: WHERE ELEVATION BETWEEN INLET AND OUTLET INVERT EXCEEDS 0.60m A DROP STRUCTURE SHALL BE INSTALLED PER 1003.010.

NOTE: ENGINEERED SOIL TO HAVE A MINIMUM PERCOLATION RATE OF 15 mm/HOUR WITH A SAFETY FACTOR OF 2.5 FOR INFILTRATION PURPOSES. PROPOSED ENGINEERED SOIL MAKE UP AND DEPTH PER GEOTECHNICAL'S RECOMMENDATION.

NOT FOR CONSTRUCTION

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2. THE DIGITAL FILES CONTAIN INTELLECTUAL AND DIGITAL DATA PROPERTY THAT IS THE EXCLUSIVE PROPERTY OF C.F. CROZIER & ASSOCIATES INC.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LEVELS, AND DATUMS ON SITE AND REPORT ANY DISCREPANCIES OR OMISSIONS TO C.F. CROZIER & ASSOCIATES INC. PRIOR TO CONSTRUCTION.
4. THIS DRAWING IS TO BE READ AND UNDERSTOOD IN CONJUNCTION WITH ALL OTHER PLANS AND DOCUMENTS APPLICABLE TO THIS PROJECT.
5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
6. DO NOT SCALE DRAWINGS.

TEMPORARY BENCHMARKS:

ELEVATION ARE REFERRED TO THE REGION OF PEEL BENCHMARK No. 40 LOCATED ON THE SOUTH FACE AT THE WEST CORNER OF SOUTH END OF A CONCRETE BOX CULVERT ACROSS MAYFIELD ROAD APPROXIMATELY 0.56 km EAST OF CLARKWAY DRIVE, HAVING AN ELEVATION OF 222.165 m. VERTICAL DATUM: CANADIAN GEODETIC DATUM, 1928 (1978 SOUTHERN ONTARIO READJUSTMENT)

SITE PLAN NOTES:

DESIGN ELEMENTS ARE BASED ON SITE PLAN PETROFF.
DRAWING No.: A100.0, DATED: 25/JUL/2025
PROJECT No.: 22095.00

Town

No.	ISSUE	DATE: MMM/DD/YYYY
1	ISSUED FOR SPA SUBMISSION	NOV/22/2024
2	RE-ISSUED FOR SPA SUBMISSION	AUG/06/2025

Engineer: LICENSED PROFESSIONAL ENGINEER — J. BOILY — 100553247 — Aug-06-2025 — PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER — M. ISKANDER — 100226629 — Aug-06-2025 — PROVINCE OF ONTARIO

Project: HUMBER STATION DISTRIBUTION CENTRE
TOWN OF CALEDON

Drawing: OVERALL PHASE 1A SERVICING PLAN

CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project
S.C./D.G./M.P.H.	J.B./D.G./K.D.	624-6777
Check By	Check By	Drawing
M.I./J.F.	M.I./J.F.	C200

STREET A SERVICING BY OTHERS

STREET A

REMOVAL BOLLARD PER TOWN OF CALEDON STD NO.612

6.0mWIDE INLET SPILLWAY

0.50m WIDE BOTTOM CHANNEL
0.5m HEIGHT & 0.30m BERM

SEDIMENT DRYING AREA

PR. PAGE WIRE FENCING

FOREBAY BERM SPILL ELEV 230.30

PR. RIP RAP EROSION PROTECTION D50=150mm DIAMETER WITH DEPTH OF 225mm w/ FILTER CLOTH

BOTTOM OF FOREBAY 229.10

BOTTOM OF MAINCELL 229.60

DEEP POOL 229.10

REVERSED SLOPE 14.3m–300mmø STM @ 7.0%

40.0m WIDE BOTTOM EMERGENCY SPILLWAY

EXT. DET. WL. 230.97

REGIONAL WL. 231.52

STM HW1
T/G 232.33
c/w WITH1.2m HIGH CHAINLINK FENCE AFFIXED TO HEADWALL OPSD 972.131 AND GRATE OPSD 804.050
NE INV 230.60

STM HW2
T/G 230.60
NE INV 229.60

STM HW3
T/G 231.65
c/w WITH1.2m HIGH CHAINLINK FENCE AFFIXED TO HEADWALL OPSD 972.131 AND GRATE OPSD 804.050
W INV 230.08

STM MH23
T/G 236.61
NW INV 231.72
SE INV 231.58

STM MH24
T/G 234.15
NW INV 231.33
SW INV 231.23

STM MH28
T/G 232.94
NE INV 230.60
SW INV 230.60
W INV 230.60

STM MH29
T/G 232.83
SW INV 230.47
E INV 230.37

13.9m–1200mmø STM @ 2.00%

61.3m–1350mmø STM @ 0.41%

42.4m–1350mmø STM @ 1.49%

14.3m–1200mmø STM @ 0.70%

32.4m–1200mmø STM @ 0.40%

36.5m–1200mmø STM @ 0.52%

FUT. STM SEWERS DESIGNED BY SCHAEFFERS

MATCH IN TO EXISTING EXISTING CONTOUR 232.20

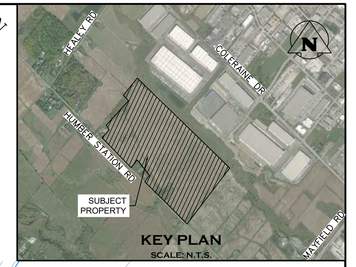
NHS LIMIT/LIMIT OF DEVELOPMENT

PR. REGIONAL FLOODLINE

25YR WL 230.05

REGIONAL FLOODLINE

CLARKWAY DRIVE TRIBUTARY



KEY PLAN
SCALE: N.T.S.

NOTE:
STREET A GRADING & SERVICING BY SCHAEFFER DATED MAY 20TH, 2025

NOTE: SUBDRAIN MAY BE REQUIRED AND TO BE SPECIFIED BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION

NOTE: THE 300mm LAYER OF CRUSHER RUN LIMESTONE IN THE FOREBAY IS EXCLUDED, AS OVER-EXCAVATION OF THE POND BOTTOM IS NOT A CONCERN. THE ENTIRE POND IS SCHEDULED FOR EVENTUAL REMOVAL.

NOTE: LIGHTING IS EXCLUDED AS THE POND WILL NOT BE ACCESSIBLE TO THE PUBLIC

NOTE: STANDARD SIGNAGE AND SAFETY EQUIPMENT WILL BE PROVIDED

CLAY LINER THICKNESS TO BE 450mm PER GEOTECHNICAL RECOMMENDATION (PINCHIN LTD, JUNE 2025)

NOT FOR CONSTRUCTION

SCALE: 1:500

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TEMPORARY BENCHMARKS:

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SITE PLAN NOTES:

DESIGN ELEMENTS ARE BASED ON SITE PLAN PETROFF.
DRAWING No.: A100.0, DATED: 25/JUL/2025
PROJECT No.: 22095.00

Town

No.	ISSUE	DATE: MMM/DD/YYYY
1	ISSUED FOR SPA SUBMISSION	NOV/22/2024
2	RE-ISSUED FOR SPA SUBMISSION	AUG/06/2025

Engineer: LICENSED PROFESSIONAL ENGINEER — A. V. SALTER — 100514324 — 2025.08.06 — PROVINCE OF ONTARIO

Engineer: LICENSED PROFESSIONAL ENGINEER — R.S. ARCHER — 100120701 — Aug. 6, 2025 — PROVINCE OF ONTARIO

Project: HUMBER STATION DISTRIBUTION CENTRE
TOWN OF CALEDON

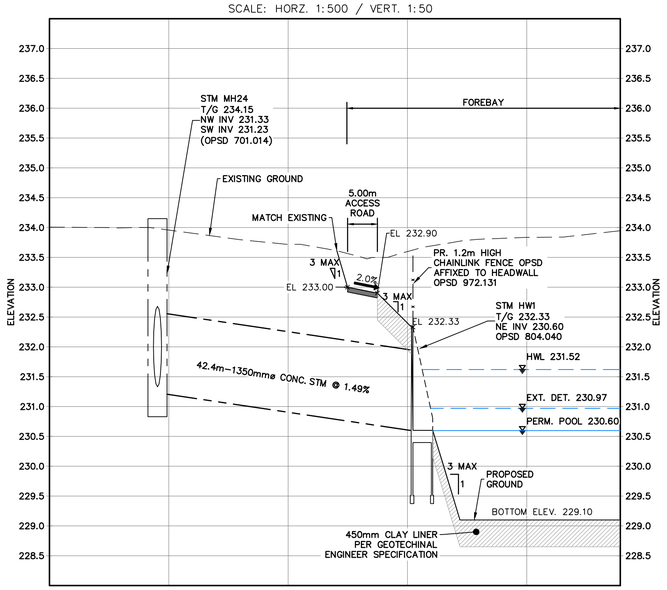
Drawing: INTERIM STORMWATER MANAGEMENT POND PLAN

CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project
S.C./D.G./M.P.H.	J.B./D.G./K.D.	624-6777
Check By	Check By	Drawing
M.I./J.F.	M.I./J.F.	C607

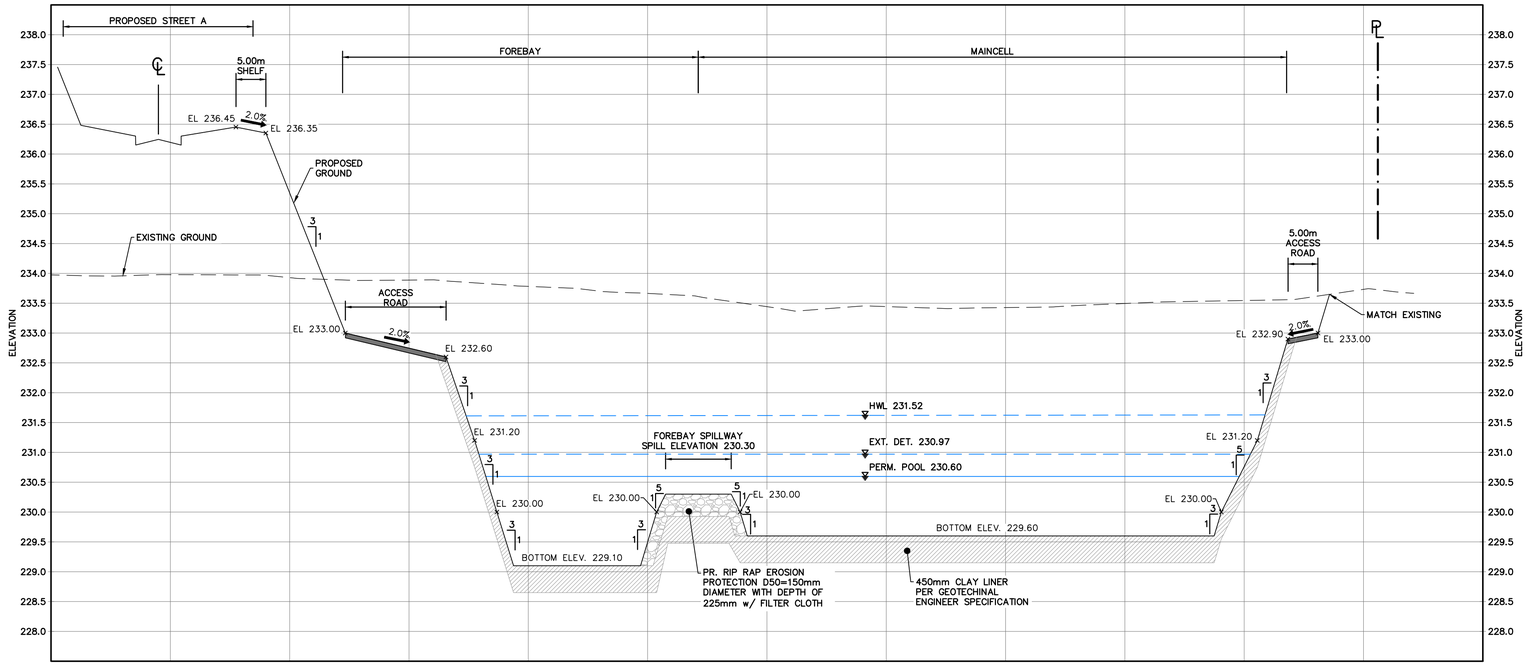
SECTION A–A

SCALE: HORZ. 1:500 / VERT. 1:50



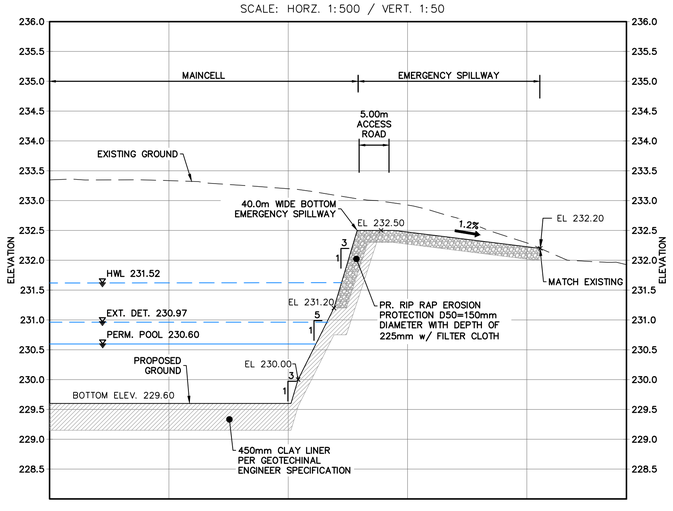
SECTION B–B

SCALE: HORZ. 1:500 / VERT. 1:50



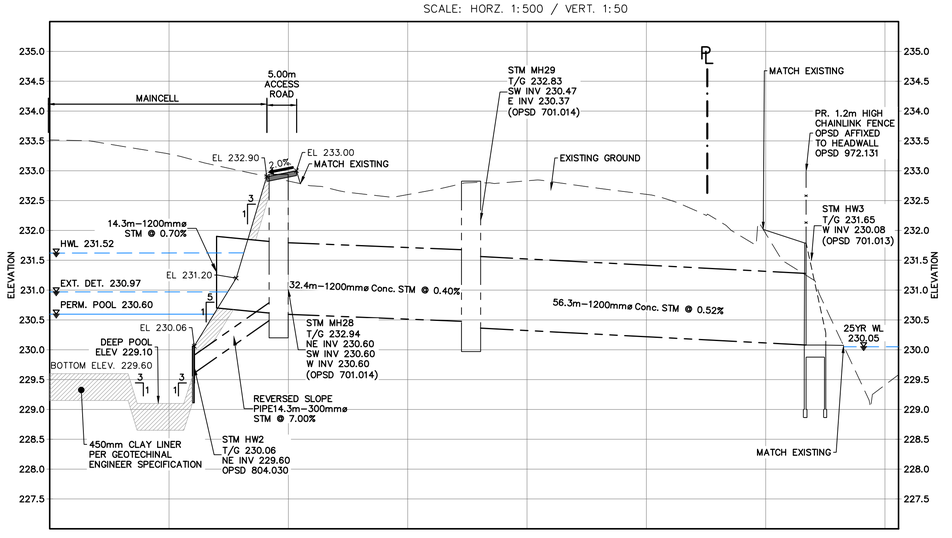
SECTION C–C

SCALE: HORZ. 1:500 / VERT. 1:50



SECTION D–D

SCALE: HORZ. 1:500 / VERT. 1:50



10 0m 10 20 30 40
SCALE: 1:500 (HORIZONTAL)

1 0m 1 2 3 4
SCALE: 1:50 (VERTICAL)

NOTE: SUBDRAIN MAY BE REQUIRED AND TO BE SPECIFIED BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION

CLAY LINER THICKNESS TO BE 450mm PER GEOTECHNICAL RECOMMENDATION (PINCHIN LTD, JUNE 2025)

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Engineer: LICENSED PROFESSIONAL ENGINEER — R.S. ARCHER — 100120701 — Aug. 6, 2025 — PROVINCE OF ONTARIO

Project: HUMBER STATION DISTRIBUTION CENTRE
TOWN OF CALEDON

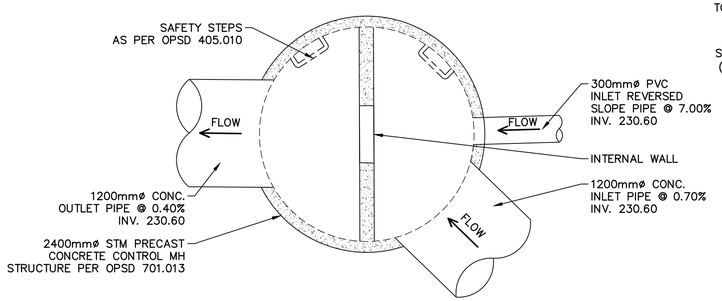
Drawing: INTERIM STORMWATER MANAGEMENT POND SECTIONS

CROZIER CONSULTING ENGINEERS

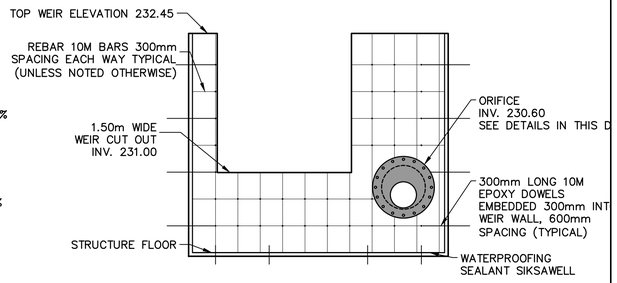
Drawn By	Design By	Project
S.C./D.G./M.P.H.	J.B./D.G./K.D.	624–6777
Check By	Check By	Drawing
M.I./J.F.	M.I./J.F.	C608

INTERIM SWM POND CONTROL MANHOLE MH28 DETAILS

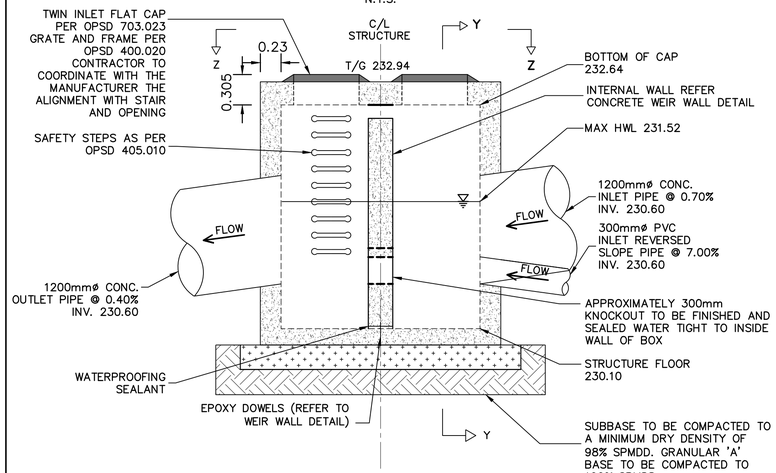
OUTLET CONTROL STRUCTURE STM MH28 CROSS SECTION Z–Z
N.T.S.



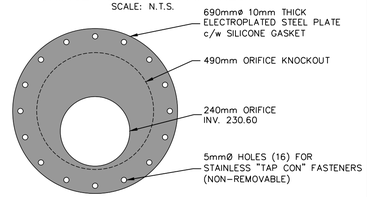
CONCRETE WEIR WALL DETAIL
N.T.S.

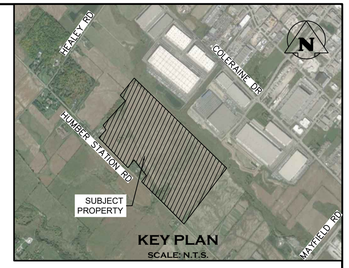


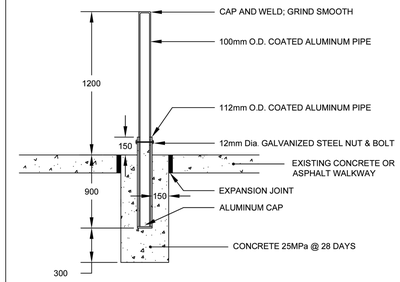
OUTLET CONTROL STRUCTURE STM MH28 CROSS SECTION X–X
N.T.S.



DETAIL 'A'
ORIFICE PLATE – STM MH28
SCALE: N.T.S.







NOTE:

1. POST TO BE CENTERED IN MAJOR WALKWAYS.

NO.	REVISION	APR'D	DATE
2	STANDARD No. 609 NOW 612		JAN 18
1	STANDARD No. 925 NOW 609		JUNE 08

TOWN OF CALEDON

REMOVABLE BOLLARD

APR'D: C.C. DATE: JAN 00
DRAWN: B.J.M. SCALE: N.T.S.

STANDARD No. 612

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