



Functional Servicing Report

For:

Clifford (Park Street) Development Inc.

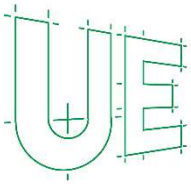
41 Park Street West, Town of Minto

Submitted by:

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1.0 INTRODUCTION

Urbtech Engineering Inc. (UEI) was retained by Clifford (Park Street) Development Inc. (CDI) to assist in the development process of its lands located at 41 Park St West, Village of Clifford, Town of Minto, County of Wellington.

This Report was prepared as per the recommendation from the reports and standards listed below:

- Geotechnical Investigation Report prepared by Soil-Mat Engineers and Consultants Ltd. (SMECL), dated April 28, 2022.
- Topographical Survey by J.D. Barnes (JDB), dated April 30, 2024.
- The Town of Minto Municipal Servicing and Design Standards (TMMSADS).
- Ministry of the Environment, Stormwater Management Planning and Design Manual (MESMPDM).
- Erosion & Sediment Control Guidelines for Urban Construction (ESCGUC).

2.0 SITE LOCATION AND TOPOGRAPHY

The proposed CDI site consists of approximately 10.65 ha, plus the external lands of approximately 0.56 ha, totaling 11.21 ha and is bounded by existing agricultural to the west, east and south and Park Street to the north.

The proposed development is comprised of single detached dwellings, street townhouses and a SWM block. The site topography consists of slopes, with slope gradients between 3% to 11%. The east part of this site (areas 101 and 102 and the external area 104 and 106) is draining towards the existing ditch, running along the existing trail and the west part of this site (area 103 and the external area 105 and 107) is draining to the low area at the west side of this proposed development and spilling to Park Street.

Some grading within the site and fill import will be required to achieve the proper sanitary sewer cover and to provide the overland flow route to the proposed SWM pond. Therefore, the adjacent agricultural lands to the west will be re-graded to optimize the agricultural viability of the lands, which has been discussed with the landowner. The fill generated from the grading of the agricultural lands to the west will be imported into the development lands and the excess

topsoil generated from the development lands will be spread over the adjacent agricultural lands to the west.

3.0 SERVICING GENERAL

Servicing of this development will consist of the following.

- 200mm diameter sanitary sewer connected to the existing 200mm diameter sanitary at Ann and Park Street.
- 150mm diameter watermain connected to the existing 150mm and 200mm diameter watermain on Park Street.
- Proposed storm sewer connected to the proposed SWM pond discharging into the existing ditch along Town's trail network and discharging into the small Coon Creek watershed.

The Plan and Profiles of the existing streets are attached in Appendix 'A'. The Servicing Plan is attached in Appendix 'C'. The service details will be discussed further in the sections below.

4.0 SANITARY SERVICING

4.1 GENERAL

The sanitary sewer servicing in the subdivision will include a 200mm diameter sanitary sewer extension along Park Street and 200mm diameter sanitary within the proposed subdivision.

4.2 DESIGN CRITERIA

As per the Town's recommendations the following design criteria shall be used.

Average Day Flow (ADF)	450 l/capita/day
Infiltration	0.15 l/s/ha
Residential	3.0 p/u
Peaking Factor	$M = 1 + 14/4 + P^{0.5}$
Peak Population Flow	$Q(p) = PqM/86.4$
Peak Extraneous Flow	$Q(i) = 0.15l/s/ha$
Peak Design Flow	$Q(d) = Q(p) + Q(i)$

The proposed number of units for the CDI Development is 189 Therefore, the total population will be $189 \times 3.0\text{ppu} = 567$.

Thus, the allowable flows are as follows.

$$M = 1 + 14 / (4 + (567/1000) ^ 0.5) = 3.95$$

$$Q_p = (450 \times (567/1,000) \times 3.95) / 86.4 = 11.65 \text{ l/s}$$

$$Q_i = 10.65 \text{ ha} \times 0.15 \text{ l/ha} = 1.6 \text{ l/s}$$

$$Q_d = Q_p + Q_i = 11.65 + 1.6 = 13.25 \text{ l/s}$$

4.3 SANITARY SYSTEM

The proposed sanitary sewers will consist of a 200mm diameter PVC, DR35 pipe. The minimum slope of the first upstream leg will be set at 1.0% and the full flow pipe velocity will be set at 0.60m/s minimum.

All sanitary manholes to be as per OPSD standards and specifications and will be spaced at 100m maximum and located at all bends and sewer deflections.

House services will consist of single services of 125mm diameter with a 2% slope minimum.

The current 2024 Hydraulic Reserve Capacity for Sanitary is 411 ERU.

5.0 WATER SUPPLY AND DISTRIBUTION

5.1 GENERAL

A 150mm diameter watermain is proposed on all internal streets and connected to the existing 150mm and 200mm watermain within Park Street.

5.2 DESIGN CRITERIA

The water requirements for the proposed development have been calculated based on the TMMSADS and MOE design criteria and are listed on the following page.

5.3 WATER SYSTEM

As noted in section 5.1, a 150mm diameter watermain is proposed on all of the internal streets and connected to the existing 150mm and 200mm watermain within Park Street.

Fire hydrants will be installed at a maximum spacing of 150 m to ensure the appropriate fire flow coverage. Single 25mm diameter copper type 'k' water services are proposed for all residential lots (singles and townhouse units).

The water distribution system is shown on the Servicing Plan, included in this report under Appendix 'C'.

6.0 STORM DRAINAGE AND STORMWATER MANAGEMENT

6.1 GENERAL

The existing drainage is from the center of this subject lands to the east and west and then to the existing ditch located along the Town's trail network and finally discharging to the Coon Creek tributary, through the existing 1200mm diameter culvert.

The proposed development area is 11.21 including 0.56 ha of external lands and will consist of 117 detached houses, 72 street townhouses, municipal ROW's, Park and SWM block.

To be consistent with the existing drainage pattern one central quality and quantity SWM pond for this development area and the external drainage areas is proposed.

This will provide enhanced (80%) water quality, decrease the erosion potential and reduce the peak flows in the downstream ditch and the receiving body of Coon Creek.

The proposed hydrologic model will be based on 3hr Chicago from MTO data.

The areas draining to the proposed Quality/Quantity Stormwater Management were delineated from the topographical survey prepared by JDB and the Town of Minto plan and profiles and storm sewer data and field investigation. These areas are shown on Plan D1 attached in Appendix 'D'.

6.2 WATER QUALITY

The proposed quality pond sizing is as follows:

Permanent Storage Required

As per Table 3.2 of the Ministry of the Environment SWM Planning and Design Manual (copy attached in Appendix 'B') for a wet pond with enhanced 80% long-term S.S. removal, for drainage area to the pond of 8.86ha with an 69% Imperviousness (the imperviousness have been established based on the proposed Draft Plan, 75% for towns and 65% for singles), the required storage is:

$$(190 + ((225 - 190) / 15) \times 14) = 223 \text{ m}^3/\text{ha}$$

$$\text{Thus, the required storage volume} = 223\text{m}^3/\text{ha} - 40 \text{ m}^3 = 183 \text{ m}^3/\text{ha}$$

$$\text{Permanent storage required } 183 \text{ m}^3/\text{ha} * 8.86 \text{ ha} = \mathbf{1,621\text{m}^3}$$

$$\text{Permanent storage provided } \mathbf{2,897 \text{ m}^3}$$

Active Storage Required

The erosion storage of 25mm with a detention time of 24 hours is necessary to protect the erosion potential for the downstream ditch and the receiving body of the creek.

From the SWMHYMO files for the 25mm storm the required storage volume is 1,634 m³.

$$\text{SWMHYMO storage required} = 1,143 \text{ m}^3$$

$$\text{Total Active storage provided} = 3,531 \text{ m}^3$$

The storage volume provided in the proposed pond are shown in the Control Facility Table in Appendix 'E' and summarized in Table 6.2.1.

Forebay

Settling calculation: (Ministry of the Environment, Stormwater Management Planning & Design Manual, Section 4.6.2, equation 4.5)

$$\text{Dist} = \sqrt{\frac{r Q_p}{V_s}}$$

Dist = 22.1 m

Dist = Forebay length (m)
 r = L to W = 2:1
 Q_p = 0.073 m³/s
 (Peak flow rate from pond. See Control Facility Table)
 V_s = 0.0003 m/s (settling velocity)

Dispersion Length

$$L = \frac{8 Q}{d V_f}$$

L = 16.6 m

L = length of dispersion
 Q = 1.350 m³/s inlet flow rate from 5Yr storm
 d = 1.30 permanent pool depth
 V_f = 0.5 m/s desired velocity

Based on the above the dispersion governs the length of the forebay, which requires a minimum length of 22.1 m.

Bottom width: (Ministry of the Environment, Stormwater Management Planning & Design Manual, Section 4.6.2, equation 4.7)

$$\text{Width} = \frac{\text{Dist}}{8} = \frac{22.1}{8} = 2.8 \text{ m}$$

Velocity = Q/A

Q = 1.35 m³/s inlet flow rate from 5Yr storm
 A = 15.0 m²

Velocity = 0.09 ms < 0.15 m/s permissible velocity to prevent erosion

Emergency Spillway

To allow the 100 year storm event flows to overpass from the pond

$$Q = 1.7 \times L \times H^{3/2} = 1.7 \times (10) \times 0.30^{3/2} = 2.793 \text{ m}^3/\text{s}$$

Q_{100yr} = 2.484 m³/s < spillway flow of 2.793 m³/s

Clean Out Frequency

Based on Table 6.3 of the Ministry of the Environment SWM Planning and Design Manual (copy attached in Appendix 'B') for 69% imperviousness:

At 69% impervious level - annual loading = 2.74 m³/ha

Thus, the annual loading is:

2.74 m³/ha x 8.86 ha = 24.3 m³ annually

Forebay volume = 463 m³

(463 / 24.3 m³) x 80% removal efficiency = 15 years

Notwithstanding, the pond should be cleaned every 10 years

TABLE 6.2.1 QUALITY/QUANTITY (SCS) POND 2 SUMMARY

Stage		Storage	Storage Provided
Forebay Bottom	369.40		
Pond Bottom	369.70		
Permanent Pool	370.70	1,621 m ³	2,897 m ³
Active Storage	371.60	1,143 m ³	3,531 m ³
100 Yr Storage	371.72	4,134 m ³	4,134m ³
Spillway	372.10		5,930 m ³
Pond Top	372.40		7,519 m ³
Forebay Length		22.1 m	33.0 m
Forebay Width		2.8 m	17.0 m
Forebay Volume			463 m ³

6.3 WATER QUANTITY

SWMHYMO model was used to generate the pre and post development flows and the output files are attached to this report in Appendix 'B' and the results are summarized in the tables below for Outlet A, B and C from this proposed development only:

Outlet		Pre-development <i>AREAS 103, 105 & 107</i>	Post-development <i>AREAS 202, 203, 204 & 205</i>	Storage
A	2yr	0.336	0.139	
	5yr	0.565	0.193	
	10yr	0.737	0.231	
	25yr	0.975	0.284	
	50yr	1.163	0.325	
	100yr	1.353	0.364	

Outlet		Pre-development <i>AREAS 101 & 104</i>	Post-development <i>AREAS 104, 105, 106, 107, 207A, 207B & 208 TO POND AND AREA 206</i>	Storage
B	2yr	0.134	0.051	1,561
	5yr	0.225	0.069	2,185
	10yr	0.293	0.082	2,633
	25yr	0.338	0.097	3,235
	50yr	0.463	0.108	3,690
	100yr	0.538	0.120	4,134

Outlet		Pre-development <i>AREAS 101, 102, 104 & 106</i>	Post-development <i>FROM POND & AREAS 201 & 206</i>	Storage
C	2yr	0.183	0.148	
	5yr	0.302	0.196	
	10yr	0.39	0.233	
	25yr	0.513	0.280	
	50yr	0.610	0.316	
	100yr	0.707	0.351	

As can be noted the post-development flows will be reduced substantially from the pre-development levels up to 50% and the required storage increased by 21% for the 100 year storm as required under severe weather conditions.

The Pond Hydraulic Table, the Stage/Storage Curve, the SWMHYMO Model Schematic and the SWMHYMO files are attached in Appendix 'B'.

6.4 MINOR AND MAJOR SYSTEM

The minor 5year storm drainage system for the 7.85 ha (areas 104, 105,107, 207A and 207B) will drain via storm sewer to the proposed SWM pond and will be controlled via orifice plate and weir in the dividing wall of the outlet structure.

The major storm flows in excess of the 5year storm event from the drainage area of 8.89 ha (Areas 104, 105, 106, 107, 207A, 207B and SWM pond area 208) will drain within the road allowance to the proposed SWM Pond and the remaining area of 0.23 ha (Area 206) will drain to the existing ditch along the Town's trail to the east, the area of 1.34 ha (Areas 202, 203, 204 and 205) will drain sheet flow to Park Street and the area of 0.75ha (Area 201) will drain to the adjacent properties and then to the existing ditch within the Town of Minto trail network. The Major Storm Drainage Plan D2 with Drainage Area Tables is included in Appendix 'B'.

7.0 SEDIMENT CONTROL DURING CONSTRUCTION

Prior to any construction activities, sediment fence will be installed along the perimeter of the site. Catchbasins sediment protection and rock check dams within the existing ditches will be installed on Park Street and the existing ditch along Town of Minto trail network.

Once the site is stripped, cut off swales and temporary rock check dams will be constructed along the limits of construction together with temporary sediment basins as shown on the Sediment Control Plan.

These sediment basins will be sized based of 125 m³/ha of storage for each drainage area as required by the ESC Guideline for Urban Construction. More details and calculations will be provided at the Detailed Design stage. The Sediment Control Plan and the Sediment Details are included in Appendix 'C'.

8.0 CONCLUSION

On the basis of the investigation and analysis carried out and identified in this report, it is evident that the proposed Clifford (Park Street) Development Inc. residential development can be adequately serviced with full municipal services while abiding by all criteria as set out by the various regulatory agencies.

- Sanitary connection is available from the existing 200mm diameter sanitary at Park and Ann Street.
- Water connection is available from the existing 150mm and 200mm diameter watermain on Park Street.
- For the stormwater quality and erosion control a permanent pool and active storage will be provided and the flows from the active storage will be controlled by a 195mm orifice plate for the proposed development area and the external areas as shown on the Drainage Plan D2.
- For the water quantity, the post-development flows for all the storm events, including the 100year storm from this proposed subdivision and the external lands will be controlled to less than the predevelopment levels and an additional 20% of storage will be provided for the 100 year storm event.
- Sediment control during construction will be provided through the installation of sediment fence, cut off swales, rock check dams and sediment basins within the subdivision boundary.

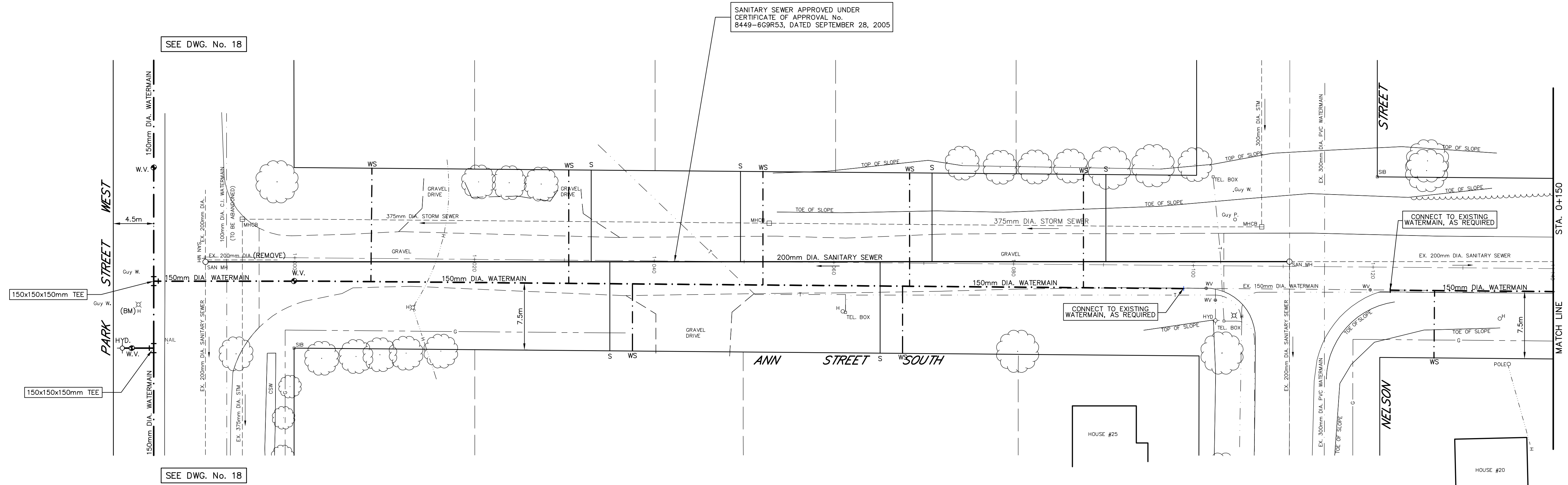
URBTECH ENGINEERING INC.



Andrzej Jaworski, P.Eng.
Consulting Engineer

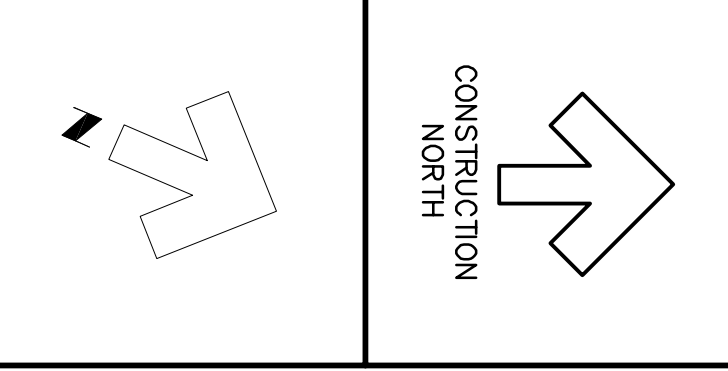
APPENDIX A

- Plan and Profile Plans



LEGEND

---	SAN. or STM.	EXISTING SEWERS, SANITARY or STORM
○	MANHOLE and CATCHBASIN	
---	W	WATERMAIN
---	---	FIRE HYDRANT
---	---	GASMAIN
---	---	UNDERGROUND TELEPHONE
---	---	UNDERGROUND HYDRO
---	---	UNDERGROUND T.V. CABLE
H B T U-SB	---	UTILITY POLES
⊗	GRUBBER	REMOVE EXISTING CONC. SIDEWALK AND DRIVES
⊗	---	REMOVE AND PLACE CONC. SIDEWALK AND DRIVES
⊗	---	PLACE CONC. SIDEWALK AND DRIVES
⊗	---	REMOVE EXISTING ASPHALT PAVT
⊗	---	PLACE HOT MIX ASPHALT DRIVE (50mm 14-3 HOT MIX MFC)
⊗	---	REMOVE EXISTING CONC. CURB
W	---	WATER SERVICE - NEW AND/OR RECONNECT
WS	---	NEW WATER SERVICE SHUT-OFF



NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

Benchmark Information
B.M. ELEVATION - 373.280
MAG NAIL AND FLAG IN NORTH-WEST FACE OF HYDRO POLE AT EAST CORNER OF ANN STREET AND PARK STREET.

Benchmark Information
B.M. ELEVATION - 369.536
MAG NAIL AND FLAG IN NORTH-WEST FACE OF HYDRO LIGHT POLE AT SOUTH CORNER OF PARK STREET AND CLARKE STREET.

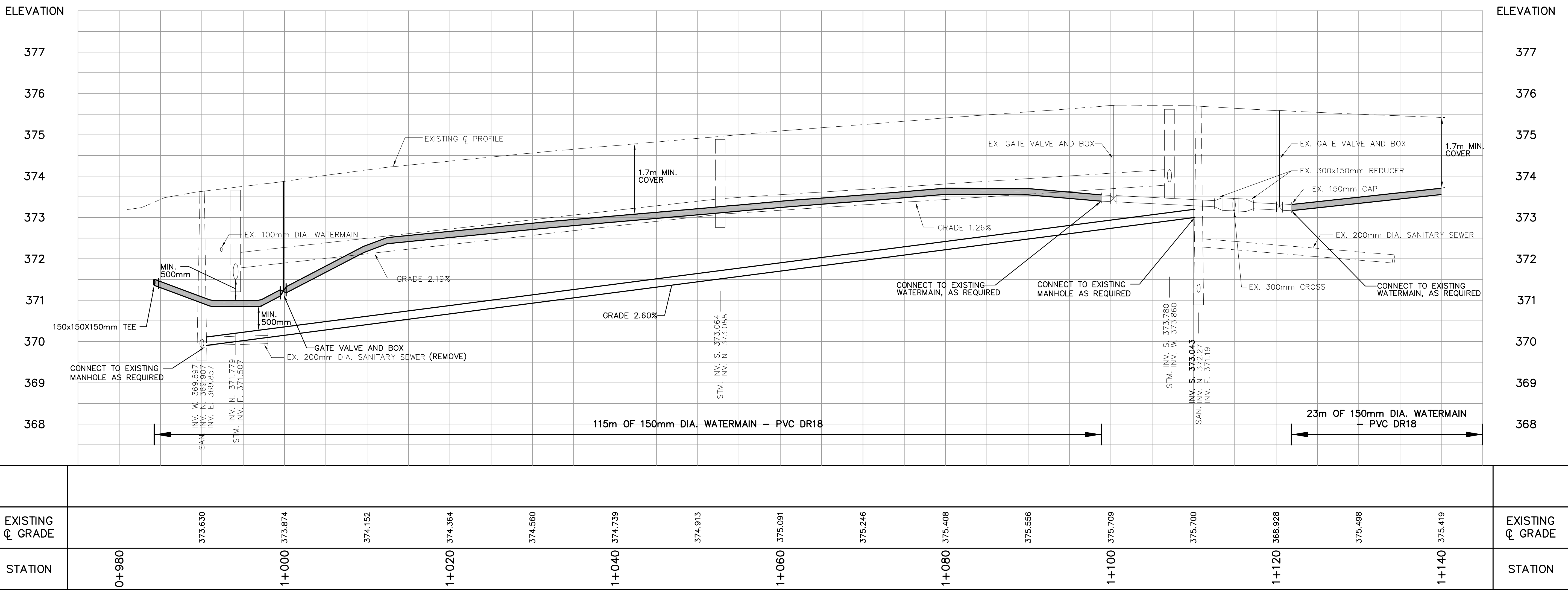
Design By: G.A.F. Checked By: F.C.V.

No.	DATE	REVISION
1	Jan. 19, 2006	Updated Watermain Design
2	Apr. 13, 2006	Updated as per Client Comments
3	Apr. 17, 2006	Issued for Approval



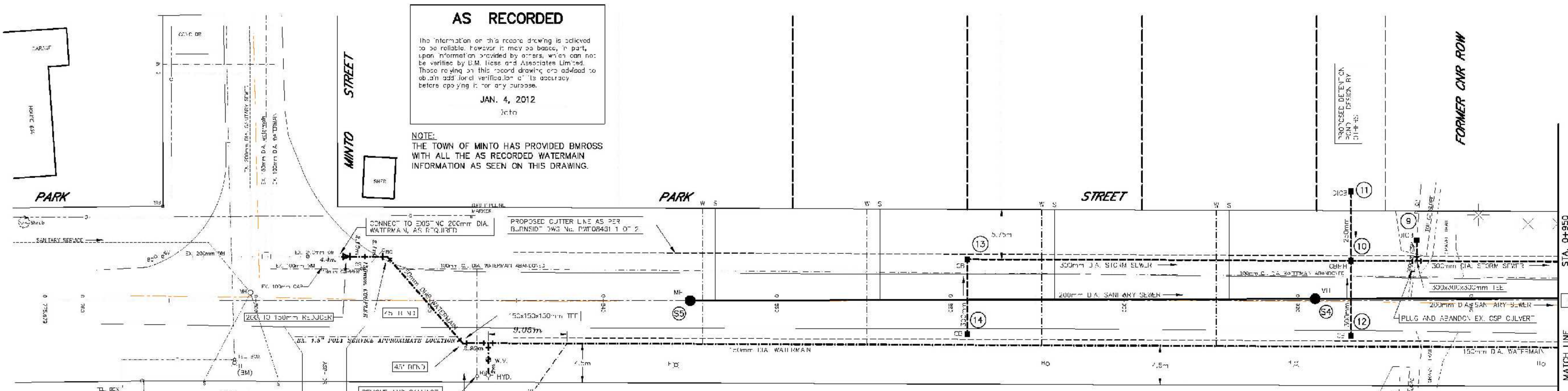
Goderich (519) 524-2641 Mount Forest (519) 323-2945

TOWN OF MINTO (CLIFFORD)
ANN STREET
Plan and Profile
From Park Street West to Sta. 1+140



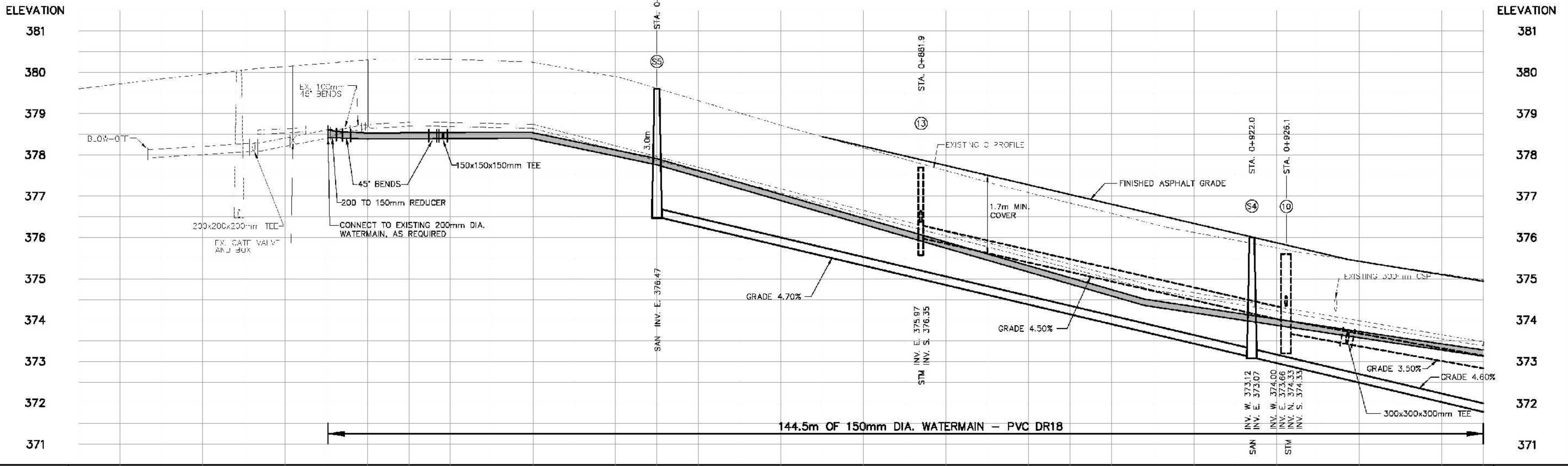
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STATION	0+980	1+000	1+020	1+040	1+060	1+080	1+100	1+120	1+140	STATION							STATION

Project No.	01161
Drawing No.	10 of 25
Scale	Horizontal: 1:250 Vertical: 1:50



MANHOLE AND CATCHBASIN DATA							
No	Station	O/S	Desc.	Grate	Inverts	T/Cover	Remarks
9	0+933.7	LT	705.040	403.010	N. = 374.181 E. = 374.137	LOW 474.50	3:1 GRATE
10	0+926.1	LT	705.040	403.010	S. = 374.38 E. = 374.37	LOW 375.00	3:1 GRATE
11	0+926.1	RT	705.010	400.110	S. = 374.37 E. = 374.37	LOW 375.00	
12	0+926.1	RT	705.010	400.110	S. = 374.37 E. = 374.37	LOW 375.00	
13	0+881.9	LT	705.010	400.110	S. = 374.37 E. = 374.37	LOW 377.70	
14	0+881.9	RT	705.010	400.110	S. = 374.37 E. = 374.37	LOW 377.70	
S4	0+922.0	CL	701.010	400.010A	W. = 373.10 E. = 373.10	LOW 376.00	
S5	0+850.0	CL	701.010	400.010A	E. = 374.50	LOW 379.00	

SEWER DATA						
No to No	Size	Type	Class	Length	Grade	Remarks
14 - 13	300	Conc.	CL3	5.5	0.40%	
13 - 10	300	Conc.	CL3	44.2	4.50%	
12 - 10	300	Conc.	CL3	8.5	0.40%	
11 - 10	250	Conc.	CL3	8.0	0.70%	
10 - 7	300	Conc.	CL3	59.5	3.50%	
9 - TEE	300	Conc.	CL3	2.4	0.50%	
S5 - S4	200	PVC	SDR35	72.0	4.70%	
S4 - S3	200	PVC	SDR35	68.4	4.60%	



EXISTING G. GRADE	STATION	EXISTING G. GRADE	STATION	EXISTING G. GRADE	STATION	EXISTING G. GRADE	STATION	EXISTING G. GRADE	STATION	EXISTING G. GRADE	STATION
378.596	780	378.838	790	380.052	0+800	380.217	810	380.318	820	380.279	830
						380.065	840	379.608	850	379.014	860
								378.439	870	377.891	880
								377.343	890	376.833	900
								376.331	910	375.934	920
								375.574	930	375.273	940
								374.975	950		

NOTE:
 THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

Benchmark Information
 B.M. Elev. 373.250
 MAG Nail and Flag in north-west face of HP at the east corner of Ann Street and Park Street

Design By: G.A.F. Checked By: F.C.V.

No.	DATE	REVISION
0	JULY 30, 2008	ISSUED FOR TOWN REVIEW
1	JULY 31, 2008	ISSUED TO MFC FOR APPROVALS
2	JAN. 4, 2012	AS RECORDED

BMROSS
 engineering better communities
 Goderich: (819) 624-2841 Mount Forest: (819) 925-2942

Town of Minto
 Minto
 Where Your Quality Begins

TOWN OF MINTO (CLIFFORD)
PARK STREET
 Plan and Profile
 From Minto Street Sta. 0+950

Contract No. 08108	Project No. 08108
Scale Horizontal: 1:250 Vertical: 1:50	Drawing No. 2 of 4

APPENDIX B

- Table 3.2 and 6.3 of the Ministry of the Environment SWM Planning and Design Manual
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-

3.3.2 Water Quality Sizing Criteria

The volumetric water quality criteria are presented in Table 3.2. The values are based on a 24 hour drawdown time and a design which conforms to the guidance provided in this manual. Requirements differ with SWMP type to reflect differences in removal efficiencies. Of the specified storage volume for wet facilities, 40 m³/ha is extended detention, while the remainder represents the permanent pool.

Table 3.2 Water Quality Storage Requirements based on Receiving Waters^{1, 2}

Protection Level	SWMP Type	Storage Volume (m ³ /ha) for Impervious Level			
		35%	55%	70%	85%
<i>Enhanced</i> 80% long-term S.S. removal	Infiltration	25	30	35	40
	Wetlands	80	105	120	140
	Hybrid Wet Pond/Wetland	110	150	175	195
	Wet Pond	140	190	225	250
<i>Normal</i> 70% long-term S.S. removal	Infiltration	20	20	25	30
	Wetlands	60	70	80	90
	Hybrid Wet Pond/Wetland	75	90	105	120
	Wet Pond	90	110	130	150
<i>Basic</i> 60% long-term S.S. removal	Infiltration	20	20	20	20
	Wetlands	60	60	60	60
	Hybrid Wet Pond/Wetland	60	70	75	80
	Wet Pond	60	75	85	95
	Dry Pond (Continuous Flow)	90	150	200	240

¹Table 3.2 does not include every available SWMP type. Any SWMP type that can be demonstrated to the approval agencies to meet the required long-term suspended solids removal for the selected protection levels under the conditions of the site is acceptable for water quality objectives. The sizing for these SWMP types is to be determined based on performance results that have been peer-reviewed. The designer and those who review the design should be fully aware of the assumptions and sampling methodologies used in formulating performance predictions and their implications for the design.

²Hybrid Wet Pond/Wetland systems have 50-60% of their permanent pool volume in deeper portions of the facility (e.g., forebay, wet pond).

These graphs can be used to determine the required sediment removal frequency given the SWMP type, storage volume, and imperviousness level of catchment basin.

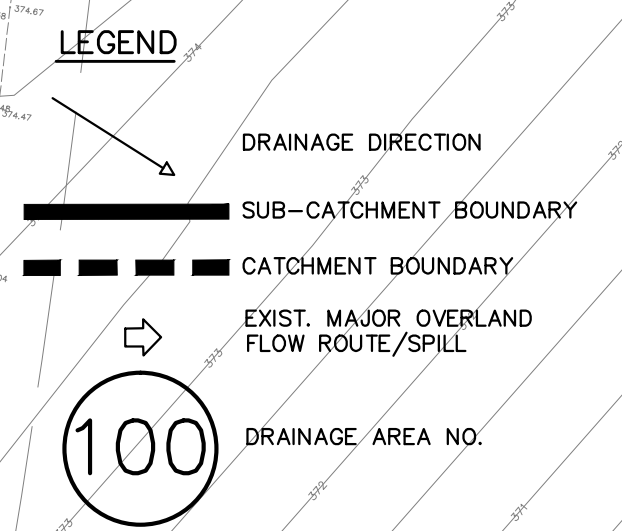
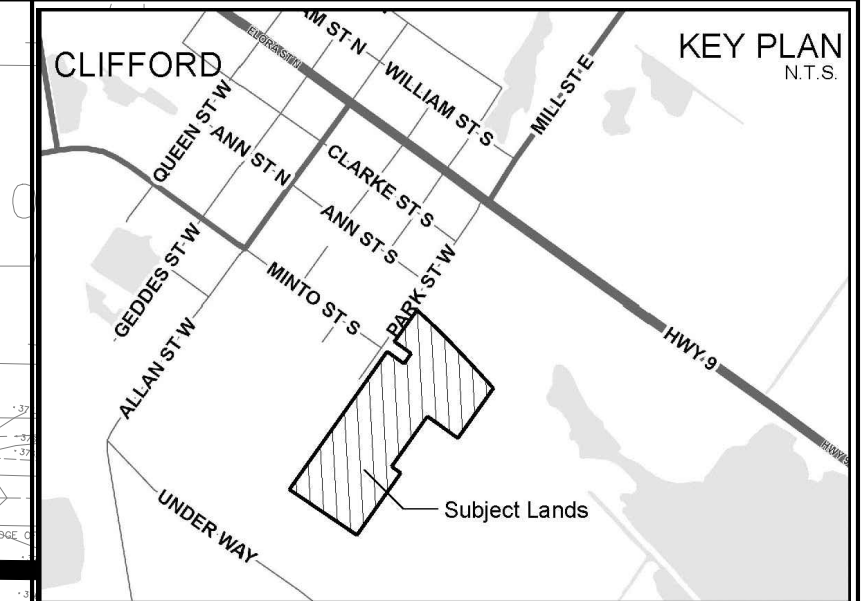
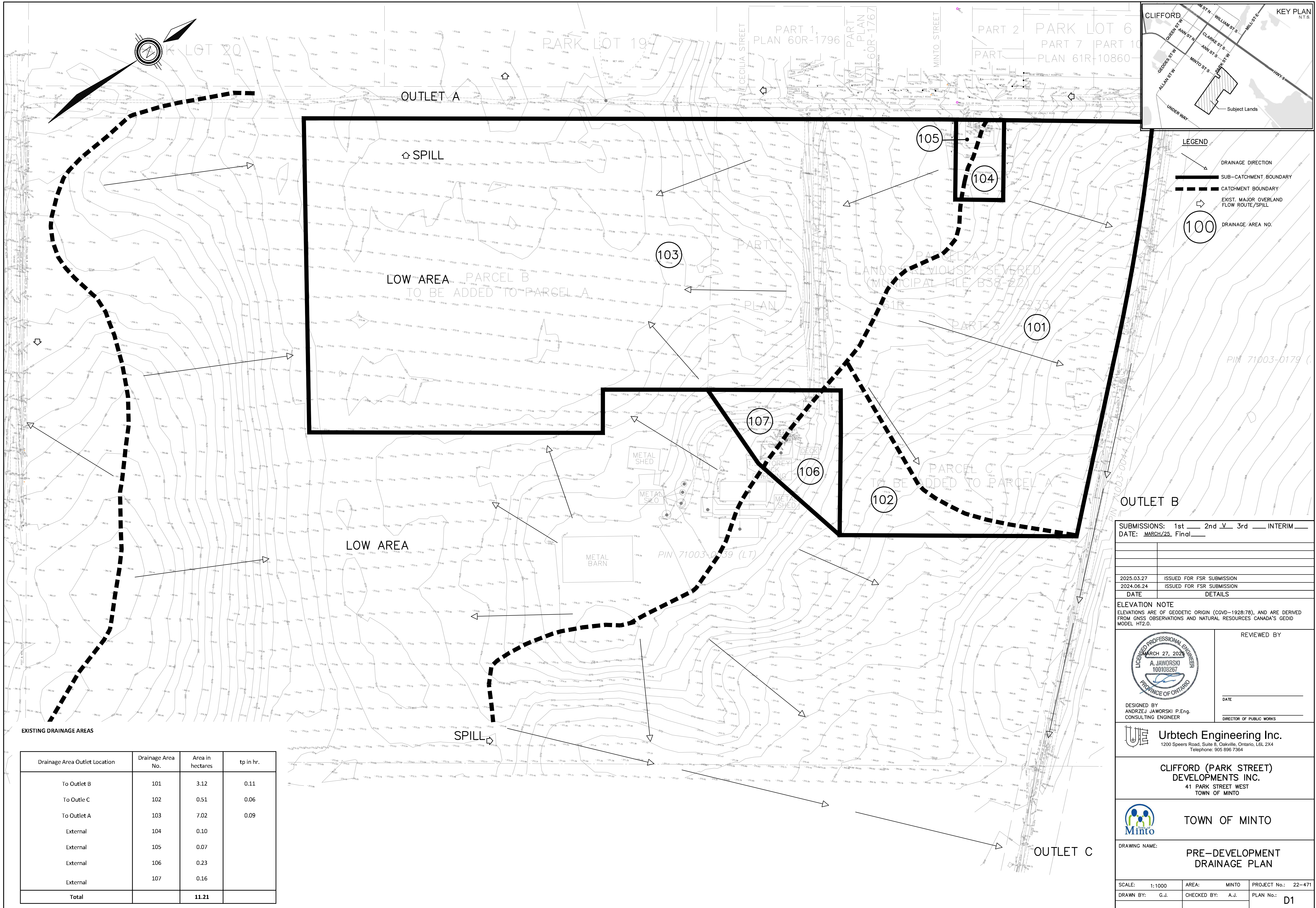
Figures 6.1 to 6.4 also indicate that increased storage capacity increases the maintenance interval (i.e., less frequent maintenance required). These curves are based on the assumption of 5% loss of performance and should not be used for over-sized facilities. In order to allow users to calculate the required maintenance frequency for an oversized SWMP, annual suspended solids loadings in runoff from catchments with different levels of imperviousness and estimated sediment density are provided in Table 6.3.

The values of suspended solids loadings in Table 6.3 were derived from US Environmental Protection Agency (EPA) Stormwater Management Model (SWMM) simulation results and are only intended to be used as estimates for planning purposes. The density of suspended solids was based on a review of the literature of stormwater sediment characteristics and recent pond sediment removal data. The following methodology should be used to calculate the maintenance frequency if storage for the SWMP is oversized (calculation can be easily automated in a spreadsheet format):

1. Determine the appropriate total suspended solid (TSS) removal efficiency based on level of protection required for receiving stream (See Table 3.2).
2. Subtract 5% to obtain the target maintenance removal efficiency.
3. Determine the projected TSS removal efficiency based on the storage provided.
4. Calculate the loss in removal performance and loss in storage for each year based on the removal performance at the start of the year, the suspended solids loading rate, and the sediment density. The removal efficiency at the start of the next year will be based on the resulting available storage volume at the end of the year. These calculations are continued until the removal efficiency of the facility at the start of the year is equal to the target maintenance removal efficiency.

Table 6.3: Annual Sediment Loadings

Catchment Imperviousness	Annual Loading (kg/ha)	Wet Density (kg/m³)	Annual Loading (m³/ha)
35%	770	1,230	0.6
55%	2,300	1,230	1.9
70%	3,495	1,230	2.8
85%	4,680	1,230	3.8



SUBMISSIONS: 1st ___ 2nd V 3rd ___ INTERIM ___
 DATE: MARCH/25 Final ___

2025.03.27 ISSUED FOR FSR SUBMISSION
 2024.06.24 ISSUED FOR FSR SUBMISSION
 DATE DETAILS

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

	REVIEWED BY
	DATE
DESIGNED BY ANDRZEJ JAWORSKI P.Eng. CONSULTING ENGINEER	DIRECTOR OF PUBLIC WORKS

Urbtech Engineering Inc.
 1200 Speers Road, Suite 8, Oakville, Ontario, L6L 2X4
 Telephone: 905 896 7364

CLIFFORD (PARK STREET) DEVELOPMENTS INC.
 41 PARK STREET WEST
 TOWN OF MINTO

TOWN OF MINTO

DRAWING NAME: **PRE-DEVELOPMENT DRAINAGE PLAN**

SCALE: 1:1000	AREA: MINTO	PROJECT No.: 22-471
DRAWN BY: G.J.	CHECKED BY: A.J.	PLAN No.: D1

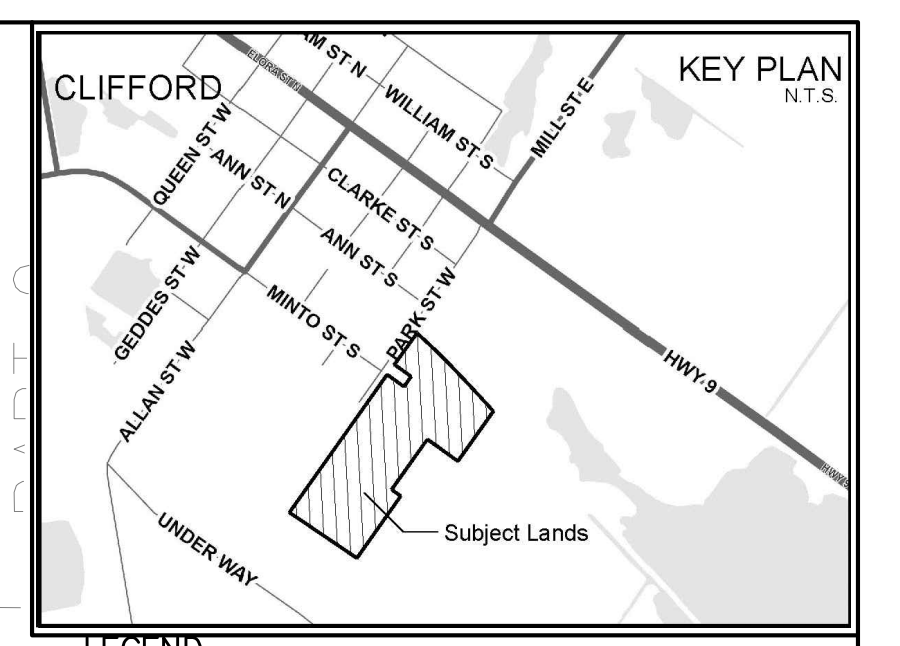
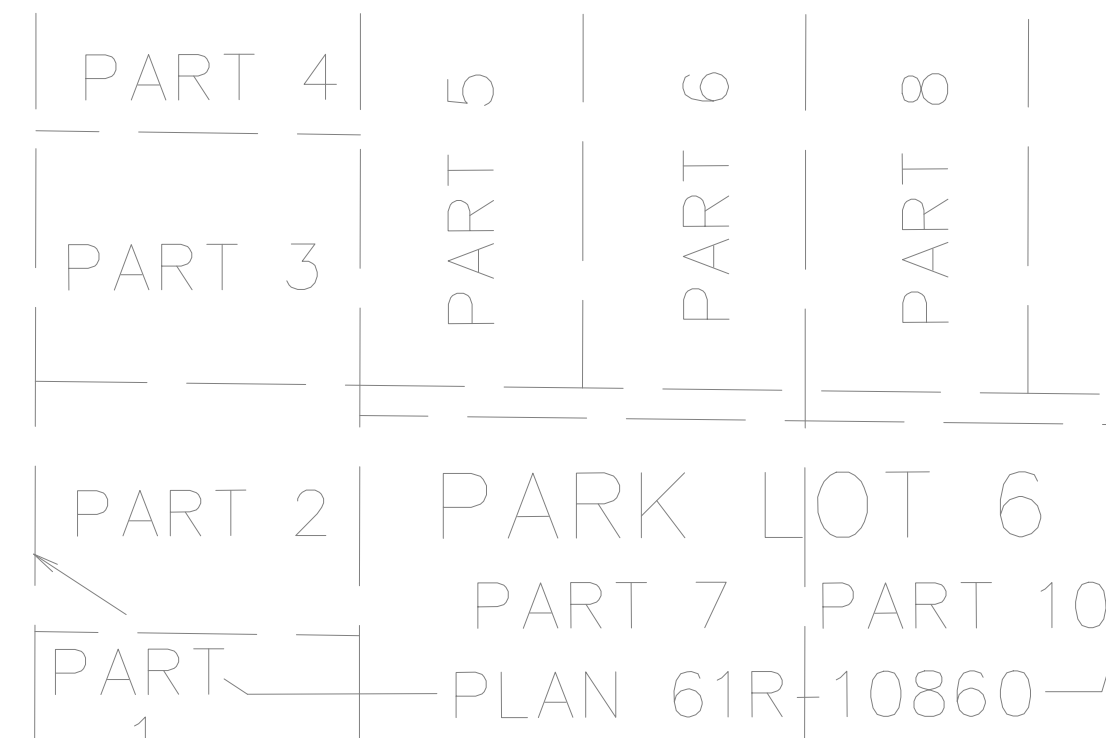
Drainage Area Outlet Location	Drainage Area No.	Area in hectares	tp in hr.
To Outlet B	101	3.12	0.11
To Outlet C	102	0.51	0.06
To Outlet A	103	7.02	0.09
External	104	0.10	
External	105	0.07	
External	106	0.23	
External	107	0.16	
Total		11.21	

MINOR/MAJOR DRAINAGE AREAS

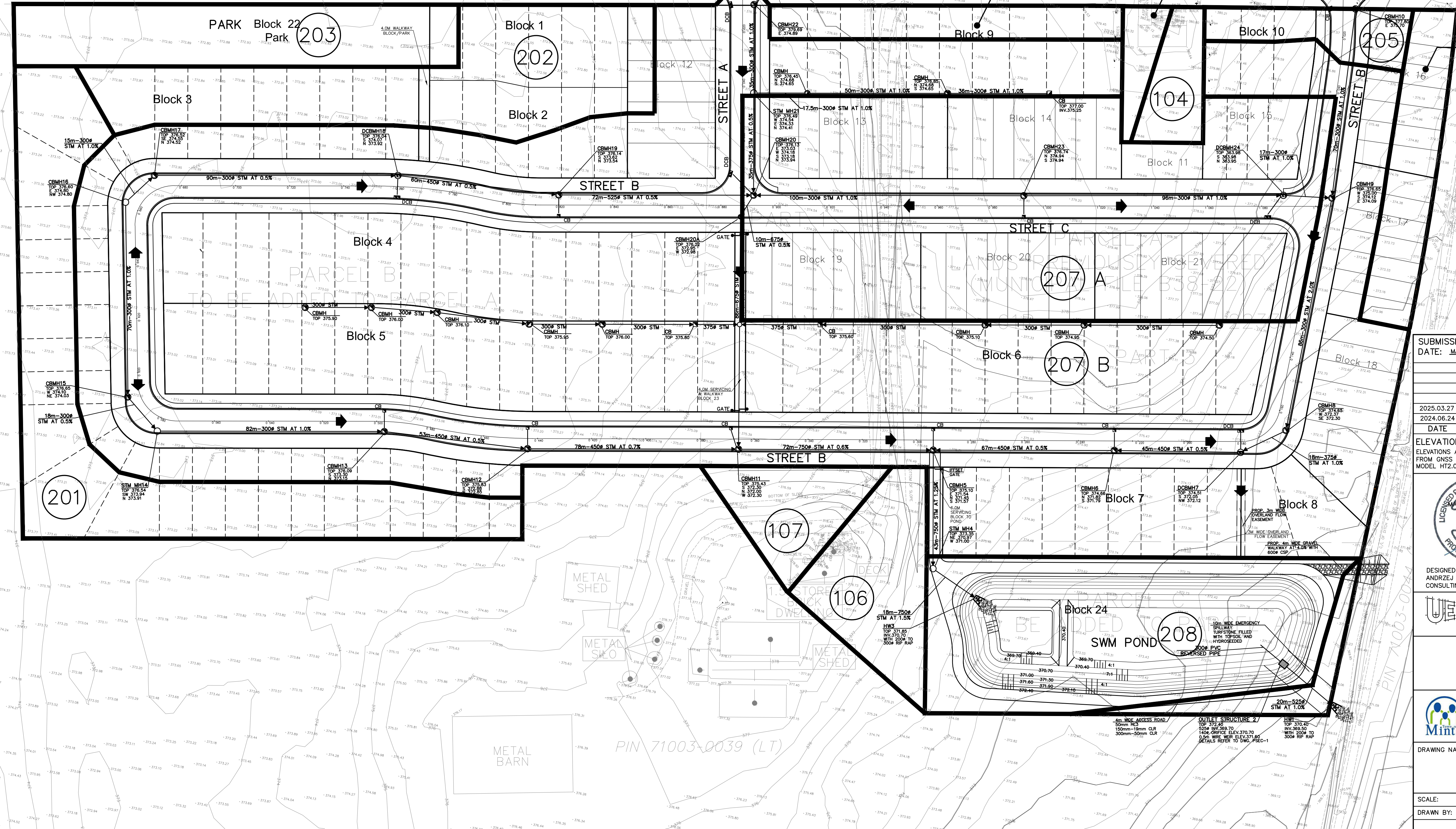
Drainage Area Outlet Location	Drainage Area No.	Area in hectares	% Imperviousness	
To Proposed SWM Pond and Outlet B	104	0.10	50	
	105	0.07	50	
	106	0.23	50	
	107	0.16	50	
	207 A	1.70	75	
	208	5.82	65	
208	0.81	90		
206	0.23	65		
Sub-total	9.12	60		
South to Outlet C	201	0.75	65	
	To Outlet A	202	0.62	65
	203	0.38	25	
	204	0.16	65	
	205	0.18	65	
Sub-total	2.09			
Total Area	11.21			

(ALSO KNOWN AS PARK STREET)
 WANCE BETWEEN LOTS 60 AND 61, CONCESSION D)
 PIN 71003-0064 (LT)

PLAN OF PARK LOT 7 OF



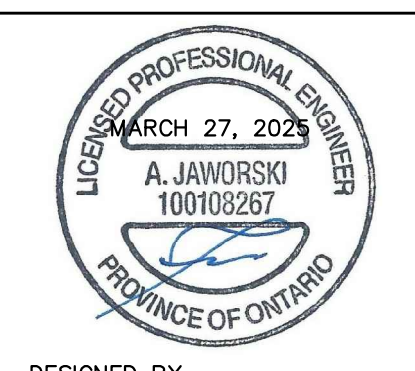
- LEGEND
- PROPOSED STORM MANHOLE
 - PROPOSED STORM CATCHBASIN MANHOLE (SINGLE)
 - PROPOSED STORM CATCHBASIN MANHOLE (DOUBLE)
 - PROPOSED DITCH INLET CATCHBASIN/CATCHBASIN
 - ➔ PROP. MAJOR OVERLAND FLOW ROUTE
 - ➔ EXIST. MAJOR OVERLAND FLOW ROUTE
 - SUB-CATCHMENT BOUNDARY
 - CATCHMENT BOUNDARY
 - DRAINAGE AREA NO.



SUBMISSIONS: 1st ___ 2nd V 3rd ___ INTERIM ___
 DATE: MARCH/25 Final ___

2025.03.27 ISSUED FOR FSR SUBMISSION
 2024.08.24 ISSUED FOR FSR SUBMISSION
 DATE DETAILS

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



DESIGNED BY
 ANDRZEJ JAWORSKI P.Eng.
 CONSULTING ENGINEER

REVIEWED BY
 DATE
 DIRECTOR OF PUBLIC WORKS

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 1200 Speers Road, Suite 8, Oakville, Ontario, L6L 2X4
 Telephone: 905 896 7364

CLIFFORD (PARK STREET) DEVELOPMENTS INC.
 41 PARK STREET WEST
 TOWN OF MINTO



DRAWING NAME:
 POST-DEVELOPMENT DRAINAGE PLAN

SCALE: 1:750 AREA: MINTO PROJECT No.: 22-471
 DRAWN BY: G.J. CHECKED BY: A.J. PLAN No.: D2

```

00001> 2      Metric units
00002> *#*****
00003> *# Project Name: [Town of Clifford] Project Number: [22-471]
00004> *#           [Pre-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00005> *# Date      : [March, 2025]
00006> *# Modeller   : [A.J.]
00007> *# Company    : Urbtech Engineering Inc.
00008> *# License #  : 3556752
00009> *#*****
00010> START      TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[1]
00011> *           ["D:\22-471 Town of Minto\FSR\Storms\25mm.STM"]
00012> *%-----|-----|
00013> READ STORM  STORM_FILENAME=["storm.001"]
00014> *%-----|-----|
00015> DESIGN NASHYD ID=[ 1 ], NHYD=["101"], DT=[ 1 ](min), AREA=[3.12] (ha),
00016> DWF=[0] (cms), CN/C=[78], TP=[0.11] (hrs),
00017> End=-1
00018> *%-----|-----|
00019> DESIGN STANDHYD ID=[ 2 ], NHYD=[" 104 "], DT=[ 1 ](min), AREA=[ 0.10 ] (ha),
00020> XIMP=[ 0.40 ], TIMP=[ 0.50 ], DWF=[0] (cms),
00021> LOSS=[2], CN=[ 68 ], SLOPE=[2 ](%)
00022> End=-1
00023> *%-----|-----|
00024> ADD HYD      IDsum=[ 3 ], NHYD=["Outlet B"], IDs to add=[ 1+2]
00025> *%-----|-----|
00026> DESIGN NASHYD ID=[ 4 ], NHYD=["103"], DT=[ 1 ](min), AREA=[7.02] (ha),
00027> DWF=[0] (cms), CN/C=[78], TP=[0.09] (hrs),
00028> End=-1
00029> *%-----|-----|
00030> DESIGN STANDHYD ID=[ 5 ], NHYD=[" 105 "], DT=[ 1 ](min), AREA=[0.07] (ha),
00031> XIMP=[ 0.40 ], TIMP=[ 0.50 ], DWF=[0] (cms),
00032> LOSS=[2], CN=[68 ], SLOPE=[ 2 ](%)
00033> End=-1
00034> *%-----|-----|
00035> DESIGN STANDHYD ID=[ 6 ], NHYD=[" 107 "], DT=[ 1 ](min), AREA=[0.16] (ha),
00036> XIMP=[ 0.40 ], TIMP=[ 0.50 ], DWF=[0] (cms),
00037> LOSS=[2], CN=[68 ], SLOPE=[ 2 ](%)
00038> End=-1
00039> *%-----|-----|
00040> ADD HYD      IDsum=[ 7 ], NHYD=["Outlet A"], IDs to add=[ 4+5+6]
00041> *%-----|-----|
00042> DESIGN NASHYD ID=[ 8 ], NHYD=["102"], DT=[ 1 ](min), AREA=[0.51] (ha),
00043> DWF=[0] (cms), CN/C=[78], TP=[0.06] (hrs),
00044> End=-1
00045> *%-----|-----|
00046> DESIGN STANDHYD ID=[9 ], NHYD=[" 106 "], DT=[ 1 ](min), AREA=[0.23] (ha),
00047> XIMP=[ 0.40 ], TIMP=[ 0.50 ], DWF=[0] (cms),
00048> LOSS=[2], CN=[68], SLOPE=[ 2 ](%)
00049> End=-1
00050> *%-----|-----|
00051> ADD HYD      IDsum=[ 10 ], NHYD=["Outlet C"], IDs to add=[8+9]
00052> *%-----|-----|
00053> START      TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[2]
00054> *           ["d:\22-471 Town of Minto\FSR\storms\Chstorm2.stm"]
00055> *%-----|-----|
00056> START      TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[3]
00057> *           ["d:\22-471 Town of Minto\FSR\storms\chstorm5.stm"]
00058> *%-----|-----|
00059> START      TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[4]
00060> *           ["d:\22-471 Town of Minto\FSR\storms\chstorm10.stm"]
00061> *%-----|-----|
00062> START      TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[5]
00063> *           ["d:\22-471 Town of Minto\FSR\storms\chstorm25.stm"]
00064> *%-----|-----|
00065> START      TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[6]
00066> *           ["d:\22-471 Town of Minto\FSR\storms\chstorm50.stm"]
00067> *%-----|-----|
00068> START      TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[7]
00069> *           ["d:\22-471 Town of Minto\FSR\storms\chstorm100.stm"]
00070> *%-----|-----|
00071> FINISH
00072>
00073>
00074>
00075>
00076>
00077>
00078>
00079>
00080>

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00001> =====
00002>
00003> SSSSS W W M M H H Y Y M M 000 222 000 11 77777 =====
00004> S W W W MM MM H H Y Y MM MM 0 0 2 0 0 11 7 7
00005> SSSSS W W W M M M H H H H Y M M M 0 0 2 0 0 11 7 Ver4.05.0
00006> S W W M M H H Y M M 0 0 222 0 0 11 7 APR 2017
00007> SSSSS W W M M H H Y M M 000 2 0 0 11 7 =====
00008> 2 0 0 11 7 # 3556752
00009> StormWater Management Hydrologic Model 222 000 11 7 =====
00010>
00011> *****
00012> ***** SWMHYMO Ver4.05.0 *****
00013> ***** A single event and continuous hydrologic simulation model *****
00014> ***** based on the principles of HYMO and its successors *****
00015> ***** OTTHYMO-83 and OTTHYMO-89. *****
00016> *****
00017> ***** Distributed by: J.F. Sabourin and Associates Inc. *****
00018> ***** Ottawa, Ontario: (613) 836-3884 *****
00019> ***** Gatineau, Quebec: (819) 243-6858 *****
00020> ***** E-Mail: swmhymo@jfsa.com *****
00021> *****
00022>
00023> ++++++
00024> ++++++ Licensed user: Urbtech Engineering Inc. ++++++
00025> ++++++ Oakville SERIAL#:3556752 ++++++
00026> ++++++
00027>
00028> *****
00029> ***** ++++++ PROGRAM ARRAY DIMENSIONS ++++++ *****
00030> ***** Maximum value for ID numbers : 11 *****
00031> ***** Max. number of rainfall points: 105408 *****
00032> ***** Max. number of flow points : 105408 *****
00033> *****
00034>
00035>
00036> ***** S U M M A R Y O U T P U T *****
00037> *****
00038> * RUN DATE: 2025-03-25 TIME: 09:53:04 RUN COUNTER: 000001 *
00039> *****
00040> * Input file: D:\22-471 Town of Minto\FSR\SWMHYMO 2\Clifford MTO CHI Pre 25mm up to 100yr .DAT *
00041> * Output file: D:\22-471 Town of Minto\FSR\SWMHYMO 2\Clifford MTO CHI Pre 25mm up to 100yr .out *
00042> * Summary file: D:\22-471 Town of Minto\FSR\SWMHYMO 2\Clifford MTO CHI Pre 25mm up to 100yr .sum *
00043> * User comments: *
00044> * 1: *
00045> * 2: *
00046> * 3: *
00047> *****
00048>
00049>
00050> #*****
00051> # Project Name: [Town of Clifford] Project Number: [22-471]
00052> # [Pre-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00053> # Date : [March, 2025]
00054> # Modeller : [A.J.]
00055> # Company : Urbtech Engineering Inc.
00056> # License # : 3556752
00057> #*****
00058> RUN#:COMMAND#
00059> R0001:C00001-----
00060> START
00061> [TZERO = .00 hrs on 0]
00062> [METOUT= 2 (1=imperial, 2=metric output)]
00063> [NSTORM= 1 ]
00064> [NRUN = 0001 ]
00065> R0001:C00002-----
00066> READ STORM
00067> Filename = storm.001
00068> Comment = 25mm storm
00069> [SDT= 5.00:SDUR= 3.92:PTOT= 24.78]
00070> R0001:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00071> DESIGN NASHYD 1.0 01:101 3.12 .081 No_date 2:08 5.71 .230 .000
00072> [CN= 78.0: N= 3.00: Tp= .11]
00073> R0001:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00074> DESIGN STANDHYD 1.0 02: 104 .10 .008 No_date 2:00 12.28 .496 .000
00075> [XIMP=.40:TIMP=.50]
00076> [SLP=2.00:DT= 1.00]
00077> [LOSS= 2 :CN= 68.0]
00078> R0001:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00079> ADD HYD 1.0 01:101 3.12 .081 No_date 2:08 5.71 n/a .000
00080> + 1.0 02: 104 .10 .008 No_date 2:00 12.28 n/a .000

```

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00081>          SUM=      1.0 03:Outlet B      3.22      .084 No_date      2:08      5.91 n/a      .000
00082> R0001:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00083>   DESIGN NASHYD      1.0 04:103      7.02      .199 No_date      2:06      5.71 .230      .000
00084>   [CN= 78.0: N= 3.00: Tp= .09]
00085> R0001:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00086>   DESIGN STANDHYD      1.0 05: 105      .07      .006 No_date      2:00      12.28 .496      .000
00087>   [XIMP=.40:TIMP=.50]
00088>   [SLP=2.00:DT= 1.00]
00089>   [LOSS= 2 :CN= 68.0]
00090> R0001:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00091>   DESIGN STANDHYD      1.0 06: 107      .16      .013 No_date      2:00      12.28 .496      .000
00092>   [XIMP=.40:TIMP=.50]
00093>   [SLP=2.00:DT= 1.00]
00094>   [LOSS= 2 :CN= 68.0]
00095> R0001:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00096>   ADD HYD      1.0 04:103      7.02      .199 No_date      2:06      5.71 n/a      .000
00097>   +      1.0 05: 105      .07      .006 No_date      2:00      12.28 n/a      .000
00098>   +      1.0 06: 107      .16      .013 No_date      2:00      12.28 n/a      .000
00099>          SUM=      1.0 07:Outlet A      7.25      .206 No_date      2:06      5.92 n/a      .000
00100> R0001:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00101>   DESIGN NASHYD      1.0 08:102      .51      .016 No_date      2:03      5.71 .230      .000
00102>   [CN= 78.0: N= 3.00: Tp= .06]
00103> R0001:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00104>   DESIGN STANDHYD      1.0 09: 106      .23      .018 No_date      2:00      12.28 .496      .000
00105>   [XIMP=.40:TIMP=.50]
00106>   [SLP=2.00:DT= 1.00]
00107>   [LOSS= 2 :CN= 68.0]
00108> R0001:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00109>   ADD HYD      1.0 08:102      .51      .016 No_date      2:03      5.71 n/a      .000
00110>   +      1.0 09: 106      .23      .018 No_date      2:00      12.28 n/a      .000
00111>          SUM=      1.0 10:Outlet C      .74      .032 No_date      2:00      7.75 n/a      .000
00112>   ** END OF RUN :      1
00113>
00114> *****
00115>
00116>
00117>
00118>
00119>
00120>   RUN#:COMMAND#
00121> R0002:C00001-----
00122>   START
00123>   [TZERO =      .00 hrs on      0]
00124>   [METOUT= 2      (1=imperial, 2=metric output)]
00125>   [NSTORM= 1 ]
00126>   [NRUN = 0002 ]
00127> #*****
00128> #   Project Name: [Town of Clifford] Project Number: [22-471]
00129> #   [Pre-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00130> #   Date      : [March, 2025]
00131> #   Modeller   : [A.J.]
00132> #   Company    : Urbtech Engineering Inc.
00133> #   License #  : 3556752
00134> #*****
00135> R0002:C00002-----
00136>   READ STORM
00137>   Filename = storm.001
00138>   Comment = Chicago Storm
00139>   [SDT=10.00:SDUR= 3.00:PTOT= 32.33]
00140> R0002:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00141>   DESIGN NASHYD      1.0 01:101      3.12      .131 No_date      1:04      9.27 .287      .000
00142>   [CN= 78.0: N= 3.00: Tp= .11]
00143> R0002:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00144>   DESIGN STANDHYD      1.0 02: 104      .10      .009 No_date      1:00      17.04 .527      .000
00145>   [XIMP=.40:TIMP=.50]
00146>   [SLP=2.00:DT= 1.00]
00147>   [LOSS= 2 :CN= 68.0]
00148> R0002:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00149>   ADD HYD      1.0 01:101      3.12      .131 No_date      1:04      9.27 n/a      .000
00150>   +      1.0 02: 104      .10      .009 No_date      1:00      17.04 n/a      .000
00151>          SUM=      1.0 03:Outlet B      3.22      .134 No_date      1:04      9.52 n/a      .000
00152> R0002:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00153>   DESIGN NASHYD      1.0 04:103      7.02      .329 No_date      1:03      9.27 .287      .000
00154>   [CN= 78.0: N= 3.00: Tp= .09]
00155> R0002:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00156>   DESIGN STANDHYD      1.0 05: 105      .07      .007 No_date      1:00      17.04 .527      .000
00157>   [XIMP=.40:TIMP=.50]
00158>   [SLP=2.00:DT= 1.00]
00159>   [LOSS= 2 :CN= 68.0]
00160> R0002:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms

```

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00161> DESIGN STANDHYD          1.0 06: 107          .16          .015 No_date      1:00      17.04 .527          .000
00162> [XIMP=.40:TIMP=.50]
00163> [SLP=2.00:DT= 1.00]
00164> [LOSS= 2 :CN= 68.0]
00165> R0002:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00166> ADD HYD                    1.0 04:103          7.02          .329 No_date      1:03      9.27 n/a          .000
00167> +                          1.0 05: 105          .07          .007 No_date      1:00      17.04 n/a          .000
00168> +                          1.0 06: 107          .16          .015 No_date      1:00      17.04 n/a          .000
00169> SUM=                        1.0 07:Outlet A          7.25          .336 No_date      1:03      9.52 n/a          .000
00170> R0002:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00171> DESIGN NASHYD              1.0 08:102          .51          .029 No_date      1:01      9.27 .287          .000
00172> [CN= 78.0: N= 3.00: Tp= .06]
00173> R0002:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00174> DESIGN STANDHYD           1.0 09: 106          .23          .021 No_date      1:00      17.04 .527          .000
00175> [XIMP=.40:TIMP=.50]
00176> [SLP=2.00:DT= 1.00]
00177> [LOSS= 2 :CN= 68.0]
00178> R0002:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00179> ADD HYD                    1.0 08:102          .51          .029 No_date      1:01      9.27 n/a          .000
00180> +                          1.0 09: 106          .23          .021 No_date      1:00      17.04 n/a          .000
00181> SUM=                        1.0 10:Outlet C          .74          .049 No_date      1:00      11.69 n/a          .000
00182> ** END OF RUN :          2
00183>
00184> *****
00185>
00186>
00187>
00188>
00189>
00190> RUN#:COMMAND#
00191> R0003:C00001-----
00192> START
00193> [TZERO = .00 hrs on 0]
00194> [METOUT= 2 (1=imperial, 2=metric output)]
00195> [NSTORM= 1 ]
00196> [NRUN = 0003 ]
00197> #*****
00198> # Project Name: [Town of Clifford] Project Number: [22-471]
00199> # [Pre-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00200> # Date : [March, 2025]
00201> # Modeller : [A.J.]
00202> # Company : Urbtech Engineering Inc.
00203> # License # : 3556752
00204> #*****
00205> R0003:C00002-----
00206> READ STORM
00207> Filename = storm.001
00208> Comment = Chicago Storm
00209> [SDT=10.00:SDUR= 3.00:PTOT= 43.06]
00210> R0003:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00211> DESIGN NASHYD              1.0 01:101          3.12          .220 No_date      1:04      15.26 .354          .000
00212> [CN= 78.0: N= 3.00: Tp= .11]
00213> R0003:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00214> DESIGN STANDHYD           1.0 02: 104          .10          .013 No_date      1:00      24.32 .565          .000
00215> [XIMP=.40:TIMP=.50]
00216> [SLP=2.00:DT= 1.00]
00217> [LOSS= 2 :CN= 68.0]
00218> R0003:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00219> ADD HYD                    1.0 01:101          3.12          .220 No_date      1:04      15.26 n/a          .000
00220> +                          1.0 02: 104          .10          .013 No_date      1:00      24.32 n/a          .000
00221> SUM=                        1.0 03:Outlet B          3.22          .225 No_date      1:04      15.54 n/a          .000
00222> R0003:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00223> DESIGN NASHYD              1.0 04:103          7.02          .553 No_date      1:03      15.26 .354          .000
00224> [CN= 78.0: N= 3.00: Tp= .09]
00225> R0003:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00226> DESIGN STANDHYD           1.0 05: 105          .07          .009 No_date      1:00      24.32 .565          .000
00227> [XIMP=.40:TIMP=.50]
00228> [SLP=2.00:DT= 1.00]
00229> [LOSS= 2 :CN= 68.0]
00230> R0003:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00231> DESIGN STANDHYD           1.0 06: 107          .16          .020 No_date      1:00      24.32 .565          .000
00232> [XIMP=.40:TIMP=.50]
00233> [SLP=2.00:DT= 1.00]
00234> [LOSS= 2 :CN= 68.0]
00235> R0003:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00236> ADD HYD                    1.0 04:103          7.02          .553 No_date      1:03      15.26 n/a          .000
00237> +                          1.0 05: 105          .07          .009 No_date      1:00      24.32 n/a          .000
00238> +                          1.0 06: 107          .16          .020 No_date      1:00      24.32 n/a          .000
00239> SUM=                        1.0 07:Outlet A          7.25          .565 No_date      1:02      15.54 n/a          .000
00240> R0003:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms

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00241> DESIGN NASHYD          1.0 08:102          .51      .049 No_date    1:01    15.26 .354    .000
00242> [CN= 78.0: N= 3.00: Tp= .06]
00243> R0003:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00244> DESIGN STANDHYD          1.0 09: 106          .23      .029 No_date    1:00    24.32 .565    .000
00245> [XIMP=.40:TIMP=.50]
00246> [SLP=2.00:DT= 1.00]
00247> [LOSS= 2 :CN= 68.0]
00248> R0003:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00249> ADD HYD                    1.0 08:102          .51      .049 No_date    1:01    15.26 n/a    .000
00250> +                          1.0 09: 106          .23      .029 No_date    1:00    24.32 n/a    .000
00251> SUM=                      1.0 10:Outlet C      .74      .077 No_date    1:00    18.07 n/a    .000
00252> ** END OF RUN :      3
00253>
00254> *****
00255>
00256>
00257>
00258>
00259>
00260> RUN#:COMMAND#
00261> R0004:C00001-----
00262> START
00263> [TZERO = .00 hrs on      0]
00264> [METOUT= 2 (1=imperial, 2=metric output)]
00265> [NSTORM= 1 ]
00266> [NRUN = 0004 ]
00267> #*****
00268> # Project Name: [Town of Clifford] Project Number: [22-471]
00269> # [Pre-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00270> # Date : [March, 2025]
00271> # Modeller : [A.J.]
00272> # Company : Urbtech Engineering Inc.
00273> # License # : 3556752
00274> #*****
00275> R0004:C00002-----
00276> READ STORM
00277> Filename = storm.001
00278> Comment = Chicago Storm
00279> [SDT=10.00:SDUR= 3.00:PTOT= 49.95]
00280> R0004:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00281> DESIGN NASHYD          1.0 01:101          3.12     .287 No_date    1:04    19.55 .391    .000
00282> [CN= 78.0: N= 3.00: Tp= .11]
00283> R0004:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00284> DESIGN STANDHYD          1.0 02: 104          .10      .015 No_date    1:00    29.25 .586    .000
00285> [XIMP=.40:TIMP=.50]
00286> [SLP=2.00:DT= 1.00]
00287> [LOSS= 2 :CN= 68.0]
00288> R0004:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00289> ADD HYD                    1.0 01:101          3.12     .287 No_date    1:04    19.55 n/a    .000
00290> +                          1.0 02: 104          .10      .015 No_date    1:00    29.25 n/a    .000
00291> SUM=                      1.0 03:Outlet B      3.22     .293 No_date    1:04    19.85 n/a    .000
00292> R0004:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00293> DESIGN NASHYD          1.0 04:103          7.02     .722 No_date    1:02    19.55 .391    .000
00294> [CN= 78.0: N= 3.00: Tp= .09]
00295> R0004:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00296> DESIGN STANDHYD          1.0 05: 105          .07      .011 No_date    1:00    29.25 .586    .000
00297> [XIMP=.40:TIMP=.50]
00298> [SLP=2.00:DT= 1.00]
00299> [LOSS= 2 :CN= 68.0]
00300> R0004:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00301> DESIGN STANDHYD          1.0 06: 107          .16      .025 No_date    1:00    29.26 .586    .000
00302> [XIMP=.40:TIMP=.50]
00303> [SLP=2.00:DT= 1.00]
00304> [LOSS= 2 :CN= 68.0]
00305> R0004:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00306> ADD HYD                    1.0 04:103          7.02     .722 No_date    1:02    19.55 n/a    .000
00307> +                          1.0 05: 105          .07      .011 No_date    1:00    29.25 n/a    .000
00308> +                          1.0 06: 107          .16      .025 No_date    1:00    29.26 n/a    .000
00309> SUM=                      1.0 07:Outlet A      7.25     .737 No_date    1:02    19.86 n/a    .000
00310> R0004:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00311> DESIGN NASHYD          1.0 08:102          .51      .063 No_date    1:01    19.55 .391    .000
00312> [CN= 78.0: N= 3.00: Tp= .06]
00313> R0004:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00314> DESIGN STANDHYD          1.0 09: 106          .23      .035 No_date    1:00    29.26 .586    .000
00315> [XIMP=.40:TIMP=.50]
00316> [SLP=2.00:DT= 1.00]
00317> [LOSS= 2 :CN= 68.0]
00318> R0004:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00319> ADD HYD                    1.0 08:102          .51      .063 No_date    1:01    19.55 n/a    .000
00320> +                          1.0 09: 106          .23      .035 No_date    1:00    29.26 n/a    .000

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00321>          SUM=      1.0 10:Outlet C      .74      .097 No_date      1:00      22.57      n/a      .000
00322>  ** END OF RUN :      4
00323>
00324> *****
00325>
00326>
00327>
00328>
00329>
00330>  RUN#:COMMAND#
00331> R0005:C00001-----
00332>  START
00333>  [TZERO =      .00 hrs on      0]
00334>  [METOUT= 2      (1=imperial, 2=metric output)]
00335>  [NSTORM= 1 ]
00336>  [NRUN = 0005 ]
00337> #*****
00338> # Project Name: [Town of Clifford] Project Number: [22-471]
00339> # [Pre-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00340> # Date : [March, 2025]
00341> # Modeller : [A.J.]
00342> # Company : Urbtech Engineering Inc.
00343> # License # : 3556752
00344> #*****
00345> R0005:C00002-----
00346>  READ STORM
00347>  Filename = storm.001
00348>  Comment = Chicago Storm
00349>  [SDT=10.00:SDUR= 3.00:PTOT= 58.89]
00350> R0005:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00351>  DESIGN NASHYD      1.0 01:101      3.12      .380 No_date      1:04      25.52 .433      .000
00352>  [CN= 78.0: N= 3.00: Tp= .11]
00353> R0005:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00354>  DESIGN STANDHYD      1.0 02: 104      .10      .019 No_date      1:00      35.91 .610      .000
00355>  [XIMP=.40:TIMP=.50]
00356>  [SLP=2.00:DT= 1.00]
00357>  [LOSS= 2 :CN= 68.0]
00358> R0005:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00359>  ADD HYD      1.0 01:101      3.12      .380 No_date      1:04      25.52 n/a      .000
00360>  +      1.0 02: 104      .10      .019 No_date      1:00      35.91 n/a      .000
00361>  SUM=      1.0 03:Outlet B      3.22      .388 No_date      1:04      25.85 n/a      .000
00362> R0005:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00363>  DESIGN NASHYD      1.0 04:103      7.02      .955 No_date      1:02      25.52 .433      .000
00364>  [CN= 78.0: N= 3.00: Tp= .09]
00365> R0005:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00366>  DESIGN STANDHYD      1.0 05: 105      .07      .013 No_date      1:00      35.91 .610      .000
00367>  [XIMP=.40:TIMP=.50]
00368>  [SLP=2.00:DT= 1.00]
00369>  [LOSS= 2 :CN= 68.0]
00370> R0005:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00371>  DESIGN STANDHYD      1.0 06: 107      .16      .030 No_date      1:00      35.91 .610      .000
00372>  [XIMP=.40:TIMP=.50]
00373>  [SLP=2.00:DT= 1.00]
00374>  [LOSS= 2 :CN= 68.0]
00375> R0005:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00376>  ADD HYD      1.0 04:103      7.02      .955 No_date      1:02      25.52 n/a      .000
00377>  +      1.0 05: 105      .07      .013 No_date      1:00      35.91 n/a      .000
00378>  +      1.0 06: 107      .16      .030 No_date      1:00      35.91 n/a      .000
00379>  SUM=      1.0 07:Outlet A      7.25      .975 No_date      1:02      25.85 n/a      .000
00380> R0005:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00381>  DESIGN NASHYD      1.0 08:102      .51      .084 No_date      1:01      25.52 .433      .000
00382>  [CN= 78.0: N= 3.00: Tp= .06]
00383> R0005:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00384>  DESIGN STANDHYD      1.0 09: 106      .23      .044 No_date      1:00      35.91 .610      .000
00385>  [XIMP=.40:TIMP=.50]
00386>  [SLP=2.00:DT= 1.00]
00387>  [LOSS= 2 :CN= 68.0]
00388> R0005:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00389>  ADD HYD      1.0 08:102      .51      .084 No_date      1:01      25.52 n/a      .000
00390>  +      1.0 09: 106      .23      .044 No_date      1:00      35.91 n/a      .000
00391>  SUM=      1.0 10:Outlet C      .74      .125 No_date      1:00      28.75 n/a      .000
00392>  ** END OF RUN :      5
00393>
00394> *****
00395>
00396>
00397>
00398>
00399>
00400>  RUN#:COMMAND#

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00401> R0006:C00001-----
00402>   START
00403>   [TZERO = .00 hrs on 0]
00404>   [METOUT= 2 (1=imperial, 2=metric output)]
00405>   [NSTORM= 1 ]
00406>   [NRUN = 0006 ]
00407> #*****
00408> # Project Name: [Town of Clifford] Project Number: [22-471]
00409> # [Pre-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00410> # Date : [March, 2025]
00411> # Modeller : [A.J.]
00412> # Company : Urbtech Engineering Inc.
00413> # License # : 3556752
00414> #*****
00415> R0006:C00002-----
00416>   READ STORM
00417>   Filename = storm.001
00418>   Comment = Chicago Storm
00419>   [SDT=10.00:SDUR= 3.00:PTOT= 65.41]
00420> R0006:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00421>   DESIGN NASHYD 1.0 01:101 3.12 .452 No_date 1:04 30.13 .461 .000
00422>   [CN= 78.0: N= 3.00: Tp= .11]
00423> R0006:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00424>   DESIGN STANDHYD 1.0 02: 104 .10 .022 No_date 1:00 40.92 .626 .000
00425>   [XIMP=.40:TIMP=.50]
00426>   [SLP=2.00:DT= 1.00]
00427>   [LOSS= 2 :CN= 68.0]
00428> R0006:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00429>   ADD HYD 1.0 01:101 3.12 .452 No_date 1:04 30.13 n/a .000
00430>   + 1.0 02: 104 .10 .022 No_date 1:00 40.92 n/a .000
00431>   SUM= 1.0 03:Outlet B 3.22 .463 No_date 1:04 30.47 n/a .000
00432> R0006:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00433>   DESIGN NASHYD 1.0 04:103 7.02 1.138 No_date 1:02 30.13 .461 .000
00434>   [CN= 78.0: N= 3.00: Tp= .09]
00435> R0006:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00436>   DESIGN STANDHYD 1.0 05: 105 .07 .015 No_date 1:00 40.92 .626 .000
00437>   [XIMP=.40:TIMP=.50]
00438>   [SLP=2.00:DT= 1.00]
00439>   [LOSS= 2 :CN= 68.0]
00440> R0006:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00441>   DESIGN STANDHYD 1.0 06: 107 .16 .035 No_date 1:00 40.92 .626 .000
00442>   [XIMP=.40:TIMP=.50]
00443>   [SLP=2.00:DT= 1.00]
00444>   [LOSS= 2 :CN= 68.0]
00445> R0006:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00446>   ADD HYD 1.0 04:103 7.02 1.138 No_date 1:02 30.13 n/a .000
00447>   + 1.0 05: 105 .07 .015 No_date 1:00 40.92 n/a .000
00448>   + 1.0 06: 107 .16 .035 No_date 1:00 40.92 n/a .000
00449>   SUM= 1.0 07:Outlet A 7.25 1.163 No_date 1:02 30.48 n/a .000
00450> R0006:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00451>   DESIGN NASHYD 1.0 08:102 .51 .099 No_date 1:01 30.13 .461 .000
00452>   [CN= 78.0: N= 3.00: Tp= .06]
00453> R0006:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00454>   DESIGN STANDHYD 1.0 09: 106 .23 .050 No_date 1:00 40.92 .626 .000
00455>   [XIMP=.40:TIMP=.50]
00456>   [SLP=2.00:DT= 1.00]
00457>   [LOSS= 2 :CN= 68.0]
00458> R0006:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00459>   ADD HYD 1.0 08:102 .51 .099 No_date 1:01 30.13 n/a .000
00460>   + 1.0 09: 106 .23 .050 No_date 1:00 40.92 n/a .000
00461>   SUM= 1.0 10:Outlet C .74 .147 No_date 1:00 33.49 n/a .000
00462>   ** END OF RUN : 6
00463>
00464> *****
00465>
00466>
00467>
00468>
00469>
00470> RUN#:COMMAND#
00471> R0007:C00001-----
00472>   START
00473>   [TZERO = .00 hrs on 0]
00474>   [METOUT= 2 (1=imperial, 2=metric output)]
00475>   [NSTORM= 1 ]
00476>   [NRUN = 0007 ]
00477> #*****
00478> # Project Name: [Town of Clifford] Project Number: [22-471]
00479> # [Pre-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00480> # Date : [March, 2025]

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00481> # Modeller      : [A.J.]
00482> # Company       : Urbtech Engineering Inc.
00483> # License #     : 3556752
00484> #*****
00485> R0007:C00002-----
00486>   READ STORM
00487>   Filename = storm.001
00488>   Comment = Chicago Storm
00489>   [SDT=10.00:SDUR= 3.00:PTOT= 71.71]
00490> R0007:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00491>   DESIGN NASHYD      1.0 01:101      3.12      .526 No_date  1:04  34.75 .485  .000
00492>   [CN= 78.0: N= 3.00: Tp= .11]
00493> R0007:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00494>   DESIGN STANDHYD   1.0 02: 104      .10      .025 No_date  1:00  45.88 .640  .000
00495>   [XIMP=.40:TIMP=.50]
00496>   [SLP=2.00:DT= 1.00]
00497>   [LOSS= 2 :CN= 68.0]
00498> R0007:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00499>   ADD HYD           1.0 01:101      3.12      .526 No_date  1:04  34.75 n/a  .000
00500>   +                 1.0 02: 104      .10      .025 No_date  1:00  45.88 n/a  .000
00501>   SUM=              1.0 03:Outlet B  3.22      .538 No_date  1:04  35.10 n/a  .000
00502> R0007:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00503>   DESIGN NASHYD      1.0 04:103      7.02      1.324 No_date  1:02  34.75 .485  .000
00504>   [CN= 78.0: N= 3.00: Tp= .09]
00505> R0007:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00506>   DESIGN STANDHYD   1.0 05: 105      .07      .018 No_date  1:00  45.87 .640  .000
00507>   [XIMP=.40:TIMP=.50]
00508>   [SLP=2.00:DT= 1.00]
00509>   [LOSS= 2 :CN= 68.0]
00510> R0007:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00511>   DESIGN STANDHYD   1.0 06: 107      .16      .040 No_date  1:00  45.88 .640  .000
00512>   [XIMP=.40:TIMP=.50]
00513>   [SLP=2.00:DT= 1.00]
00514>   [LOSS= 2 :CN= 68.0]
00515> R0007:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00516>   ADD HYD           1.0 04:103      7.02      1.324 No_date  1:02  34.75 n/a  .000
00517>   +                 1.0 05: 105      .07      .018 No_date  1:00  45.87 n/a  .000
00518>   +                 1.0 06: 107      .16      .040 No_date  1:00  45.88 n/a  .000
00519>   SUM=              1.0 07:Outlet A  7.25      1.353 No_date  1:02  35.10 n/a  .000
00520> R0007:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00521>   DESIGN NASHYD      1.0 08:102      .51      .115 No_date  1:01  34.75 .485  .000
00522>   [CN= 78.0: N= 3.00: Tp= .06]
00523> R0007:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00524>   DESIGN STANDHYD   1.0 09: 106      .23      .056 No_date  1:00  45.88 .640  .000
00525>   [XIMP=.40:TIMP=.50]
00526>   [SLP=2.00:DT= 1.00]
00527>   [LOSS= 2 :CN= 68.0]
00528> R0007:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00529>   ADD HYD           1.0 08:102      .51      .115 No_date  1:01  34.75 n/a  .000
00530>   +                 1.0 09: 106      .23      .056 No_date  1:00  45.88 n/a  .000
00531>   SUM=              1.0 10:Outlet C  .74      .169 No_date  1:00  38.21 n/a  .000
00532> R0007:C00002-----
00533>   FINISH
00534> -----
00535> *****
00536>   WARNINGS / ERRORS / NOTES
00537> -----
00538>   Simulation ended on 2025-03-25      at 09:53:07
00539> =====
00540>

```

```

00001> 2      Metric units
00002> *#*****
00003> *# Project Name: [Town of Clifford ] Project Number: [22-471]
00004> *# [Post-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00005> *# Date      : [March, 2025]
00006> *# Modeller   : [A.J.]
00007> *# Company    : Urbtech Engineering Inc.
00008> *# License #  : 3556752
00009> *#*****
00010> START      TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[1]
00011> *          ["D:\22-471 Town of Minto\FSR\Storms\25mm.STM"]
00012> *%-----|-----|
00013> READ STORM  STORM_FILENAME=["storm.001"]
00014> *%-----|-----|
00015> DESIGN STANDHYD ID=[1], NHYD=["104"], DT=[1]min, AREA=[0.10] (ha),
00016> XIMP=[0.40], TIMP=[0.50], DWF=[0] (cms), LOSS=[2], CN=[68],
00017> SLOPE=[2.0] (%), END=-1
00018> *%-----|-----|
00019> DESIGN STANDHYD ID=[2], NHYD=["105"], DT=[1]min, AREA=[0.07] (ha),
00020> XIMP=[0.40], TIMP=[0.50], DWF=[0] (cms), LOSS=[2], CN=[68],
00021> SLOPE=[2.0] (%), END=-1
00022> *%-----|-----|
00023> DESIGN STANDHYD ID=[3], NHYD=["106"], DT=[1]min, AREA=[0.23] (ha),
00024> XIMP=[0.40], TIMP=[0.50], DWF=[0] (cms), LOSS=[2], CN=[68],
00025> SLOPE=[2.0] (%), END=-1
00026> *%-----|-----|
00027> DESIGN STANDHYD ID=[4], NHYD=["107"], DT=[1]min, AREA=[0.16] (ha),
00028> XIMP=[0.40], TIMP=[0.50], DWF=[0] (cms), LOSS=[2], CN=[68],
00029> SLOPE=[2.0] (%), END=-1
00030> *%-----|-----|
00031> ADD HYD      IDsum=[ 5 ], NHYD=["External"], IDs to add=[ 1+2+3+4]
00032> *%-----|-----|
00033> DESIGN STANDHYD ID=[6], NHYD=["207A"], DT=[1]min, AREA=[1.70] (ha),
00034> XIMP=[0.65], TIMP=[0.75], DWF=[0] (cms), LOSS=[2], CN=[68],
00035> SLOPE=[2.0] (%), END=-1
00036> *%-----|-----|
00037> DESIGN STANDHYD ID=[7], NHYD=["207B"], DT=[1]min, AREA=[5.82] (ha),
00038> XIMP=[0.55], TIMP=[0.65], DWF=[0] (cms), LOSS=[2], CN=[68],
00039> SLOPE=[2.0] (%), END=-1
00040> *%-----|-----|
00041> DESIGN STANDHYD ID=[8], NHYD=["208Pond"], DT=[1]min, AREA=[0.81] (ha),
00042> XIMP=[0.90], TIMP=[0.90], DWF=[0] (cms), LOSS=[2], CN=[50],
00043> SLOPE=[0.0001] (%), END=-1
00044> *%-----|-----|
00045> ADD HYD      IDsum=[ 9 ], NHYD=["Pond 301"], IDs to add=[5+6+7+8]
00046> *%-----|-----|
00047> ROUTE RESERVOIR IDout=[10], NHYD=[501], IDin=[9],
00048> RDT=[2] (min),
00049> TABLE of ( OUTFLOW-STORAGE ) values
00050> (cms) - (ha-m)
00051> [ 0.0 , 0.0 ]
00052> [ 0.037, 0.1049]
00053> [ 0.045, 0.1433]
00054> [ 0.052, 0.1830]
00055> [ 0.058 , 0.2237]
00056> [ 0.064, 0.2657]
00057> [ 0.069, 0.3088]
00058> [ 0.073, 0.3531]
00059> [ 0.078, 0.3987]
00060> [ 0.082, 0.4454]
00061> [ 0.237, 0.4934]
00062> [ 0.323, 0.5426]
00063> [ 0.419, 0.5930]
00064> [ 0.581, 0.6710]
00065> [ 3.555, 0.7519]
00066> [ -1 , -1 ] (max twenty pts)
00067> *%-----|-----|
00068> DESIGN STANDHYD ID=[1], NHYD=["206"], DT=[1]min, AREA=0.23] (ha),
00069> XIMP=[0.55], TIMP=[0.65], DWF=[0] (cms), LOSS=[2], CN=[68],
00070> SLOPE=[2.0] (%), END=-1
00071> *%-----|-----|
00072> ADD HYD      IDsum=[ 2 ], NHYD=["Outlet B"], IDs to add=[10+1]
00073> *%-----|-----|
00074> DESIGN STANDHYD ID=[3], NHYD=["202"], DT=[1]min, AREA=[0.62] (ha),
00075> XIMP=[0.55], TIMP=[0.65], DWF=[0] (cms), LOSS=[2], CN=[68],
00076> SLOPE=[2.0] (%), END=-1
00077> *%-----|-----|
00078> DESIGN STANDHYD ID=[4], NHYD=["203"], DT=[1]min, AREA=[0.38] (ha),
00079> XIMP=[0.20], TIMP=[0.25], DWF=[0] (cms), LOSS=[2], CN=[68],
00080> SLOPE=[5.0] (%), END=-1

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00081> *%-----|-----|
00082> DESIGN STANDHYD ID=[5], NHYD=["204"], DT=[1]min, AREA=[0.16] (ha),
00083> XIMP=[0.55], TIMP=[0.65], DWF=[0] (cms), LOSS=[2], CN=[68],
00084> SLOPE=[2.0] (%), END=-1
00085> *%-----|-----|
00086> DESIGN STANDHYD ID=[6], NHYD=["205"], DT=[1]min, AREA=[0.18] (ha),
00087> XIMP=[0.55], TIMP=[0.65], DWF=[0] (cms), LOSS=[2], CN=[68],
00088> SLOPE=[2.0] (%), END=-1
00089> *%-----|-----|
00090> ADD HYD IDsum=[7], NHYD=[303 Out A], IDs to add=[3+4+5+6]
00091> *%-----|-----|
00092> DESIGN STANDHYD ID=[8], NHYD=["201 Out C"], DT=[1]min, AREA=[0.75] (ha),
00093> XIMP=[0.55], TIMP=[0.65], DWF=[0] (cms), LOSS=[2], CN=[68],
00094> SLOPE=[2.0] (%), END=-1
00095> *%-----|-----|
00096> START TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[2]
00097> * ["d:\22-471 Town of Minto\FSR\storms\Chstorm2.stm"]
00098> *%-----|-----|
00099> START TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[3]
00100> * ["d:\22-471 Town of Minto\FSR\storms\chstorm5.stm"]
00101> *%-----|-----|
00102> START TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[4]
00103> * ["d:\22-471 Town of Minto\FSR\storms\chstorm10.stm"]
00104> *%-----|-----|
00105> START TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[5]
00106> * ["d:\22-471 Town of Minto\FSR\storms\chstorm25.stm"]
00107> *%-----|-----|
00108> START TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[6]
00109> * ["d:\22-471 Town of Minto\FSR\storms\chstorm50.stm"]
00110> *%-----|-----|
00111> START TZERO=[0.0]hrs or date, METOUT=[2], NSTORM=[1], NRUN=[7]
00112> * ["d:\22-471 Town of Minto\FSR\storms\chstorm100.stm"]
00113> *%-----|-----|
00114> FINISH
00115>
00116>
00117>
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00001> =====
00002>
00003> SSSSS W W M M H H Y Y M M 000 222 000 11 77777 =====
00004> S W W W MM MM H H Y Y MM MM 0 0 2 0 0 11 7 7
00005> SSSSS W W W M M M H H H H Y M M M 0 0 2 0 0 11 7 Ver4.05.0
00006> S W W M M H H Y M M 0 0 222 0 0 11 7 APR 2017
00007> SSSSS W W M M H H Y M M 000 2 0 0 11 7 =====
00008> 2 0 0 11 7 # 3556752
00009> StormWater Management Hydrologic Model 222 000 11 7 =====
00010>
00011> *****
00012> ***** SWMHYMO Ver4.05.0 *****
00013> ***** A single event and continuous hydrologic simulation model *****
00014> ***** based on the principles of HYMO and its successors *****
00015> ***** OTTHYMO-83 and OTTHYMO-89. *****
00016> *****
00017> ***** Distributed by: J.F. Sabourin and Associates Inc. *****
00018> ***** Ottawa, Ontario: (613) 836-3884 *****
00019> ***** Gatineau, Quebec: (819) 243-6858 *****
00020> ***** E-Mail: swmhymo@jfsa.com *****
00021> *****
00022>
00023> ++++++
00024> ++++++ Licensed user: Urbtech Engineering Inc. ++++++
00025> ++++++ Oakville SERIAL#:3556752 ++++++
00026> ++++++
00027>
00028> *****
00029> ***** ++++++ PROGRAM ARRAY DIMENSIONS ++++++ *****
00030> ***** Maximum value for ID numbers : 11 *****
00031> ***** Max. number of rainfall points: 105408 *****
00032> ***** Max. number of flow points : 105408 *****
00033> *****
00034>
00035>
00036> ***** S U M M A R Y O U T P U T *****
00037> *****
00038> * RUN DATE: 2025-03-25 TIME: 10:51:04 RUN COUNTER: 000002 *
00039> *****
00040> * Input file: D:\22-471 Town of Minto\FSR\SWMHYMO 2\Clifford MTO CHI RR 25mm up to 100yr .DAT *
00041> * Output file: D:\22-471 Town of Minto\FSR\SWMHYMO 2\Clifford MTO CHI RR 25mm up to 100yr .out *
00042> * Summary file: D:\22-471 Town of Minto\FSR\SWMHYMO 2\Clifford MTO CHI RR 25mm up to 100yr .sum *
00043> * User comments: *
00044> * 1: *
00045> * 2: *
00046> * 3: *
00047> *****
00048>
00049>
00050> #*****
00051> # Project Name: [Town of Clifford ] Project Number: [22-471]
00052> # [Post-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00053> # Date : [March, 2025]
00054> # Modeller : [A.J.]
00055> # Company : Urbtech Engineering Inc.
00056> # License # : 3556752
00057> #*****
00058> RUN#:COMMAND#
00059> R0001:C00001-----
00060> START
00061> [TZERO = .00 hrs on 0]
00062> [METOUT= 2 (1=imperial, 2=metric output)]
00063> [NSTORM= 1 ]
00064> [NRUN = 0001 ]
00065> R0001:C00002-----
00066> READ STORM
00067> Filename = storm.001
00068> Comment = 25mm storm
00069> [SDT= 5.00:SDUR= 3.92:PTOT= 24.78]
00070> R0001:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00071> DESIGN STANDHYD 1.0 01:104 .10 .008 No_date 2:00 12.28 .496 .000
00072> [XIMP=.40:TIMP=.50]
00073> [SLP=2.00:DT= 1.00]
00074> [LOSS= 2 :CN= 68.0]
00075> R0001:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00076> DESIGN STANDHYD 1.0 02:105 .07 .006 No_date 2:00 12.28 .496 .000
00077> [XIMP=.40:TIMP=.50]
00078> [SLP=2.00:DT= 1.00]
00079> [LOSS= 2 :CN= 68.0]
00080> R0001:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms

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ID	Description	DTmin	ID:NHYD	AREAha	QPEAKcms	TpeakDate	hh:mm	RVmm	R.C.	DWFcms
00081>	DESIGN STANDHYD	1.0	03:106	.23	.018	No_date	2:00	12.28	.496	.000
00082>	[XIMP=.40:TIMP=.50]									
00083>	[SLP=2.00:DT= 1.00]									
00084>	[LOSS= 2 :CN= 68.0]									
00085>	R0001:C00006									
00086>	DESIGN STANDHYD	1.0	04:107	.16	.013	No_date	2:00	12.28	.496	.000
00087>	[XIMP=.40:TIMP=.50]									
00088>	[SLP=2.00:DT= 1.00]									
00089>	[LOSS= 2 :CN= 68.0]									
00090>	R0001:C00007									
00091>	ADD HYD	1.0	01:104	.10	.008	No_date	2:00	12.28	n/a	.000
00092>	+	1.0	02:105	.07	.006	No_date	2:00	12.28	n/a	.000
00093>	+	1.0	03:106	.23	.018	No_date	2:00	12.28	n/a	.000
00094>	+	1.0	04:107	.16	.013	No_date	2:00	12.28	n/a	.000
00095>	SUM=	1.0	05:External	.56	.044	No_date	2:00	12.28	n/a	.000
00096>	R0001:C00008									
00097>	DESIGN STANDHYD	1.0	06:207A	1.70	.196	No_date	2:00	17.39	.702	.000
00098>	[XIMP=.65:TIMP=.75]									
00099>	[SLP=2.00:DT= 1.00]									
00100>	[LOSS= 2 :CN= 68.0]									
00101>	R0001:C00009									
00102>	DESIGN STANDHYD	1.0	07:207B	5.82	.494	No_date	2:02	15.34	.619	.000
00103>	[XIMP=.55:TIMP=.65]									
00104>	[SLP=2.00:DT= 1.00]									
00105>	[LOSS= 2 :CN= 68.0]									
00106>	R0001:C00010									
00107>	DESIGN STANDHYD	1.0	08:208Pond	.81	.035	No_date	2:11	21.69	.875	.000
00108>	[XIMP=.90:TIMP=.90]									
00109>	[SLP= .00:DT= 1.00]									
00110>	[LOSS= 2 :CN= 50.0]									
00111>	R0001:C00011									
00112>	ADD HYD	1.0	05:External	.56	.044	No_date	2:00	12.28	n/a	.000
00113>	+	1.0	06:207A	1.70	.196	No_date	2:00	17.39	n/a	.000
00114>	+	1.0	07:207B	5.82	.494	No_date	2:02	15.34	n/a	.000
00115>	+	1.0	08:208Pond	.81	.035	No_date	2:11	21.69	n/a	.000
00116>	SUM=	1.0	09:Pond 301	8.89	.737	No_date	2:01	16.12	n/a	.000
00117>	R0001:C00012									
00118>	ROUTE RESERVOIR ->	1.0	09:Pond 301	8.89	.737	No_date	2:01	16.12	n/a	.000
00119>	out <=	1.0	10: 501	8.89	.039	No_date	3:49	16.12	n/a	.000
00120>	{MxStoUsed=.1143E+00 m3}									
00121>	R0001:C00013									
00122>	DESIGN STANDHYD	1.0	01:206	.23	.025	No_date	2:00	15.33	.619	.000
00123>	[XIMP=.55:TIMP=.65]									
00124>	[SLP=2.00:DT= 1.00]									
00125>	[LOSS= 2 :CN= 68.0]									
00126>	R0001:C00014									
00127>	ADD HYD	1.0	10: 501	8.89	.039	No_date	3:49	16.12	n/a	.000
00128>	+	1.0	01:206	.23	.025	No_date	2:00	15.33	n/a	.000
00129>	SUM=	1.0	02:Outlet B	9.12	.040	No_date	3:30	16.10	n/a	.000
00130>	R0001:C00015									
00131>	DESIGN STANDHYD	1.0	03:202	.62	.064	No_date	2:00	15.34	.619	.000
00132>	[XIMP=.55:TIMP=.65]									
00133>	[SLP=2.00:DT= 1.00]									
00134>	[LOSS= 2 :CN= 68.0]									
00135>	R0001:C00016									
00136>	DESIGN STANDHYD	1.0	04:203	.38	.015	No_date	2:00	8.02	.324	.000
00137>	[XIMP=.20:TIMP=.25]									
00138>	[SLP=5.00:DT= 1.00]									
00139>	[LOSS= 2 :CN= 68.0]									
00140>	R0001:C00017									
00141>	DESIGN STANDHYD	1.0	05:204	.16	.017	No_date	2:00	15.34	.619	.000
00142>	[XIMP=.55:TIMP=.65]									
00143>	[SLP=2.00:DT= 1.00]									
00144>	[LOSS= 2 :CN= 68.0]									
00145>	R0001:C00018									
00146>	DESIGN STANDHYD	1.0	06:205	.18	.020	No_date	2:00	15.33	.619	.000
00147>	[XIMP=.55:TIMP=.65]									
00148>	[SLP=2.00:DT= 1.00]									
00149>	[LOSS= 2 :CN= 68.0]									
00150>	R0001:C00019									
00151>	ADD HYD	1.0	03:202	.62	.064	No_date	2:00	15.34	n/a	.000
00152>	+	1.0	04:203	.38	.015	No_date	2:00	8.02	n/a	.000
00153>	+	1.0	05:204	.16	.017	No_date	2:00	15.34	n/a	.000
00154>	+	1.0	06:205	.18	.020	No_date	2:00	15.33	n/a	.000
00155>	SUM=	1.0	07: 303	1.34	.116	No_date	2:00	13.26	n/a	.000
00156>	R0001:C00020									
00157>	DESIGN STANDHYD	1.0	08:201 Out C	.75	.077	No_date	2:00	15.34	.619	.000
00158>	[XIMP=.55:TIMP=.65]									
00159>	[SLP=2.00:DT= 1.00]									
00160>	[LOSS= 2 :CN= 68.0]									

```

00161> ** END OF RUN : 1
00162>
00163> *****
00164>
00165>
00166>
00167>
00168>
00169> RUN#:COMMAND#
00170> R0002:C00001-----
00171> START
00172> [TZERO = .00 hrs on 0]
00173> [METOUT= 2 (1=imperial, 2=metric output)]
00174> [NSTORM= 1 ]
00175> [NRUN = 0002 ]
00176> #*****
00177> # Project Name: [Town of Clifford ] Project Number: [22-471]
00178> # [Post-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00179> # Date : [March, 2025]
00180> # Modeller : [A.J.]
00181> # Company : Urbtech Engineering Inc.
00182> # License # : 3556752
00183> #*****
00184> R0002:C00002-----
00185> READ STORM
00186> Filename = storm.001
00187> Comment = Chicago Storm
00188> [SDT=10.00:SDUR= 3.00:PTOT= 32.33]
00189> R0002:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00190> DESIGN STANDHYD 1.0 01:104 .10 .009 No_date 1:00 17.04 .527 .000
00191> [XIMP=.40:TIMP=.50]
00192> [SLP=2.00:DT= 1.00]
00193> [LOSS= 2 :CN= 68.0]
00194> R0002:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00195> DESIGN STANDHYD 1.0 02:105 .07 .007 No_date 1:00 17.04 .527 .000
00196> [XIMP=.40:TIMP=.50]
00197> [SLP=2.00:DT= 1.00]
00198> [LOSS= 2 :CN= 68.0]
00199> R0002:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00200> DESIGN STANDHYD 1.0 03:106 .23 .021 No_date 1:00 17.04 .527 .000
00201> [XIMP=.40:TIMP=.50]
00202> [SLP=2.00:DT= 1.00]
00203> [LOSS= 2 :CN= 68.0]
00204> R0002:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00205> DESIGN STANDHYD 1.0 04:107 .16 .015 No_date 1:00 17.04 .527 .000
00206> [XIMP=.40:TIMP=.50]
00207> [SLP=2.00:DT= 1.00]
00208> [LOSS= 2 :CN= 68.0]
00209> R0002:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00210> ADD HYD 1.0 01:104 .10 .009 No_date 1:00 17.04 n/a .000
00211> + 1.0 02:105 .07 .007 No_date 1:00 17.04 n/a .000
00212> + 1.0 03:106 .23 .021 No_date 1:00 17.04 n/a .000
00213> + 1.0 04:107 .16 .015 No_date 1:00 17.04 n/a .000
00214> SUM= 1.0 05:External .56 .052 No_date 1:00 17.04 n/a .000
00215> R0002:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00216> DESIGN STANDHYD 1.0 06:207A 1.70 .246 No_date 1:00 23.43 .725 .000
00217> [XIMP=.65:TIMP=.75]
00218> [SLP=2.00:DT= 1.00]
00219> [LOSS= 2 :CN= 68.0]
00220> R0002:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00221> DESIGN STANDHYD 1.0 07:207B 5.82 .681 No_date 1:00 20.86 .645 .000
00222> [XIMP=.55:TIMP=.65]
00223> [SLP=2.00:DT= 1.00]
00224> [LOSS= 2 :CN= 68.0]
00225> R0002:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00226> DESIGN STANDHYD 1.0 08:208Pond .81 .047 No_date 1:09 28.50 .881 .000
00227> [XIMP=.90:TIMP=.90]
00228> [SLP= .00:DT= 1.00]
00229> [LOSS= 2 :CN= 50.0]
00230> R0002:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00231> ADD HYD 1.0 05:External .56 .052 No_date 1:00 17.04 n/a .000
00232> + 1.0 06:207A 1.70 .246 No_date 1:00 23.43 n/a .000
00233> + 1.0 07:207B 5.82 .681 No_date 1:00 20.86 n/a .000
00234> + 1.0 08:208Pond .81 .047 No_date 1:09 28.50 n/a .000
00235> SUM= 1.0 09:Pond 301 8.89 1.010 No_date 1:00 21.81 n/a .000
00236> R0002:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00237> ROUTE RESERVOIR -> 1.0 09:Pond 301 8.89 1.010 No_date 1:00 21.81 n/a .000
00238> out <= 1.0 10: 501 8.89 .047 No_date 3:03 21.81 n/a .000
00239> {MxStoUsed=.1561E+00 m3}
00240> R0002:C00013-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms

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00241> DESIGN STANDHYD 1.0 01:206 .23 .029 No_date 1:00 20.86 .645 .000
00242> [XIMP=.55:TIMP=.65]
00243> [SLP=2.00:DT= 1.00]
00244> [LOSS= 2 :CN= 68.0]
00245> R0002:C00014-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00246> ADD HYD 1.0 10: 501 8.89 .047 No_date 3:03 21.81 n/a .000
00247> + 1.0 01:206 .23 .029 No_date 1:00 20.86 n/a .000
00248> SUM= 1.0 02:Outlet B 9.12 .051 No_date 1:00 21.78 n/a .000
00249> R0002:C00015-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00250> DESIGN STANDHYD 1.0 03:202 .62 .077 No_date 1:00 20.86 .645 .000
00251> [XIMP=.55:TIMP=.65]
00252> [SLP=2.00:DT= 1.00]
00253> [LOSS= 2 :CN= 68.0]
00254> R0002:C00016-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00255> DESIGN STANDHYD 1.0 04:203 .38 .019 No_date 1:00 11.65 .360 .000
00256> [XIMP=.20:TIMP=.25]
00257> [SLP=5.00:DT= 1.00]
00258> [LOSS= 2 :CN= 68.0]
00259> R0002:C00017-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00260> DESIGN STANDHYD 1.0 05:204 .16 .020 No_date 1:00 20.86 .645 .000
00261> [XIMP=.55:TIMP=.65]
00262> [SLP=2.00:DT= 1.00]
00263> [LOSS= 2 :CN= 68.0]
00264> R0002:C00018-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00265> DESIGN STANDHYD 1.0 06:205 .18 .023 No_date 1:00 20.86 .645 .000
00266> [XIMP=.55:TIMP=.65]
00267> [SLP=2.00:DT= 1.00]
00268> [LOSS= 2 :CN= 68.0]
00269> R0002:C00019-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00270> ADD HYD 1.0 03:202 .62 .077 No_date 1:00 20.86 n/a .000
00271> + 1.0 04:203 .38 .019 No_date 1:00 11.65 n/a .000
00272> + 1.0 05:204 .16 .020 No_date 1:00 20.86 n/a .000
00273> + 1.0 06:205 .18 .023 No_date 1:00 20.86 n/a .000
00274> SUM= 1.0 07: 303 1.34 .139 No_date 1:00 18.25 n/a .000
00275> R0002:C00020-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00276> DESIGN STANDHYD 1.0 08:201 Out C .75 .093 No_date 1:00 20.86 .645 .000
00277> [XIMP=.55:TIMP=.65]
00278> [SLP=2.00:DT= 1.00]
00279> [LOSS= 2 :CN= 68.0]
00280> ** END OF RUN : 2
00281>
00282> *****
00283>
00284>
00285>
00286>
00287>
00288> RUN#:COMMAND#
00289> R0003:C00001-----
00290> START
00291> [TZERO = .00 hrs on 0]
00292> [METOUT= 2 (1=imperial, 2=metric output)]
00293> [NSTORM= 1 ]
00294> [NRUN = 0003 ]
00295> #*****
00296> # Project Name: [Town of Clifford ] Project Number: [22-471]
00297> # [Post-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00298> # Date : [March, 2025]
00299> # Modeller : [A.J.]
00300> # Company : Urbtech Engineering Inc.
00301> # License # : 3556752
00302> #*****
00303> R0003:C00002-----
00304> READ STORM
00305> Filename = storm.001
00306> Comment = Chicago Storm
00307> [SDT=10.00:SDUR= 3.00:PTOT= 43.06]
00308> R0003:C00003-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00309> DESIGN STANDHYD 1.0 01:104 .10 .013 No_date 1:00 24.32 .565 .000
00310> [XIMP=.40:TIMP=.50]
00311> [SLP=2.00:DT= 1.00]
00312> [LOSS= 2 :CN= 68.0]
00313> R0003:C00004-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00314> DESIGN STANDHYD 1.0 02:105 .07 .009 No_date 1:00 24.32 .565 .000
00315> [XIMP=.40:TIMP=.50]
00316> [SLP=2.00:DT= 1.00]
00317> [LOSS= 2 :CN= 68.0]
00318> R0003:C00005-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00319> DESIGN STANDHYD 1.0 03:106 .23 .029 No_date 1:00 24.32 .565 .000
00320> [XIMP=.40:TIMP=.50]

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00321> [SLP=2.00:DT= 1.00]
00322> [LOSS= 2 :CN= 68.0]
00323> R0003:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00324> DESIGN STANDHYD 1.0 04:107 .16 .020 No_date 1:00 24.32 .565 .000
00325> [XIMP=.40:TIMP=.50]
00326> [SLP=2.00:DT= 1.00]
00327> [LOSS= 2 :CN= 68.0]
00328> R0003:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00329> ADD HYD 1.0 01:104 .10 .013 No_date 1:00 24.32 n/a .000
00330> + 1.0 02:105 .07 .009 No_date 1:00 24.32 n/a .000
00331> + 1.0 03:106 .23 .029 No_date 1:00 24.32 n/a .000
00332> + 1.0 04:107 .16 .020 No_date 1:00 24.32 n/a .000
00333> SUM= 1.0 05:External .56 .072 No_date 1:00 24.32 n/a .000
00334> R0003:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00335> DESIGN STANDHYD 1.0 06:207A 1.70 .334 No_date 1:00 32.31 .750 .000
00336> [XIMP=.65:TIMP=.75]
00337> [SLP=2.00:DT= 1.00]
00338> [LOSS= 2 :CN= 68.0]
00339> R0003:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00340> DESIGN STANDHYD 1.0 07:207B 5.82 .936 No_date 1:00 29.10 .676 .000
00341> [XIMP=.55:TIMP=.65]
00342> [SLP=2.00:DT= 1.00]
00343> [LOSS= 2 :CN= 68.0]
00344> R0003:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00345> DESIGN STANDHYD 1.0 08:208Pond .81 .045 No_date 1:48 38.62 .897 .000
00346> [XIMP=.90:TIMP=.90]
00347> [SLP= .00:DT= 1.00]
00348> [LOSS= 2 :CN= 50.0]
00349> R0003:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00350> ADD HYD 1.0 05:External .56 .072 No_date 1:00 24.32 n/a .000
00351> + 1.0 06:207A 1.70 .334 No_date 1:00 32.31 n/a .000
00352> + 1.0 07:207B 5.82 .936 No_date 1:00 29.10 n/a .000
00353> + 1.0 08:208Pond .81 .045 No_date 1:48 38.62 n/a .000
00354> SUM= 1.0 09:Pond 301 8.89 1.350 No_date 1:00 30.28 n/a .000
00355> R0003:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00356> ROUTE RESERVOIR -> 1.0 09:Pond 301 8.89 1.350 No_date 1:00 30.28 n/a .000
00357> out <= 1.0 10: 501 8.89 .057 No_date 3:04 30.28 n/a .000
00358> {MxStoUsed=.2185E+00 m3}
00359> R0003:C00013-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00360> DESIGN STANDHYD 1.0 01:206 .23 .039 No_date 1:00 29.09 .676 .000
00361> [XIMP=.55:TIMP=.65]
00362> [SLP=2.00:DT= 1.00]
00363> [LOSS= 2 :CN= 68.0]
00364> R0003:C00014-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00365> ADD HYD 1.0 10: 501 8.89 .057 No_date 3:04 30.28 n/a .000
00366> + 1.0 01:206 .23 .039 No_date 1:00 29.09 n/a .000
00367> SUM= 1.0 02:Outlet B 9.12 .069 No_date 1:00 30.25 n/a .000
00368> R0003:C00015-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00369> DESIGN STANDHYD 1.0 03:202 .62 .105 No_date 1:00 29.10 .676 .000
00370> [XIMP=.55:TIMP=.65]
00371> [SLP=2.00:DT= 1.00]
00372> [LOSS= 2 :CN= 68.0]
00373> R0003:C00016-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00374> DESIGN STANDHYD 1.0 04:203 .38 .029 No_date 1:00 17.48 .406 .000
00375> [XIMP=.20:TIMP=.25]
00376> [SLP=5.00:DT= 1.00]
00377> [LOSS= 2 :CN= 68.0]
00378> R0003:C00017-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00379> DESIGN STANDHYD 1.0 05:204 .16 .027 No_date 1:00 29.09 .676 .000
00380> [XIMP=.55:TIMP=.65]
00381> [SLP=2.00:DT= 1.00]
00382> [LOSS= 2 :CN= 68.0]
00383> R0003:C00018-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00384> DESIGN STANDHYD 1.0 06:205 .18 .031 No_date 1:00 29.10 .676 .000
00385> [XIMP=.55:TIMP=.65]
00386> [SLP=2.00:DT= 1.00]
00387> [LOSS= 2 :CN= 68.0]
00388> R0003:C00019-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00389> ADD HYD 1.0 03:202 .62 .105 No_date 1:00 29.10 n/a .000
00390> + 1.0 04:203 .38 .029 No_date 1:00 17.48 n/a .000
00391> + 1.0 05:204 .16 .027 No_date 1:00 29.09 n/a .000
00392> + 1.0 06:205 .18 .031 No_date 1:00 29.10 n/a .000
00393> SUM= 1.0 07: 303 1.34 .193 No_date 1:00 25.80 n/a .000
00394> R0003:C00020-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00395> DESIGN STANDHYD 1.0 08:201 Out C .75 .127 No_date 1:00 29.10 .676 .000
00396> [XIMP=.55:TIMP=.65]
00397> [SLP=2.00:DT= 1.00]
00398> [LOSS= 2 :CN= 68.0]
00399> ** END OF RUN : 3
00400>

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00401> *****
00402>
00403>
00404>
00405>
00406>
00407> RUN#:COMMAND#
00408> R0004:C00001-----
00409> START
00410> [TZERO = .00 hrs on 0]
00411> [METOUT= 2 (1=imperial, 2=metric output)]
00412> [NSTORM= 1 ]
00413> [NRUN = 0004 ]
00414> #*****
00415> # Project Name: [Town of Clifford ] Project Number: [22-471]
00416> # [Post-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00417> # Date : [March, 2025]
00418> # Modeller : [A.J.]
00419> # Company : Urbtech Engineering Inc.
00420> # License # : 3556752
00421> #*****
00422> R0004:C00002-----
00423> READ STORM
00424> Filename = storm.001
00425> Comment = Chicago Storm
00426> [SDT=10.00:SDUR= 3.00:PTOT= 49.95]
00427> R0004:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00428> DESIGN STANDHYD 1.0 01:104 .10 .015 No_date 1:00 29.25 .586 .000
00429> [XIMP=.40:TIMP=.50]
00430> [SLP=2.00:DT= 1.00]
00431> [LOSS= 2 :CN= 68.0]
00432> R0004:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00433> DESIGN STANDHYD 1.0 02:105 .07 .011 No_date 1:00 29.25 .586 .000
00434> [XIMP=.40:TIMP=.50]
00435> [SLP=2.00:DT= 1.00]
00436> [LOSS= 2 :CN= 68.0]
00437> R0004:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00438> DESIGN STANDHYD 1.0 03:106 .23 .035 No_date 1:00 29.26 .586 .000
00439> [XIMP=.40:TIMP=.50]
00440> [SLP=2.00:DT= 1.00]
00441> [LOSS= 2 :CN= 68.0]
00442> R0004:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00443> DESIGN STANDHYD 1.0 04:107 .16 .025 No_date 1:00 29.26 .586 .000
00444> [XIMP=.40:TIMP=.50]
00445> [SLP=2.00:DT= 1.00]
00446> [LOSS= 2 :CN= 68.0]
00447> R0004:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00448> ADD HYD 1.0 01:104 .10 .015 No_date 1:00 29.25 n/a .000
00449> + 1.0 02:105 .07 .011 No_date 1:00 29.25 n/a .000
00450> + 1.0 03:106 .23 .035 No_date 1:00 29.26 n/a .000
00451> + 1.0 04:107 .16 .025 No_date 1:00 29.26 n/a .000
00452> SUM= 1.0 05:External .56 .087 No_date 1:00 29.25 n/a .000
00453> R0004:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00454> DESIGN STANDHYD 1.0 06:207A 1.70 .396 No_date 1:00 38.18 .764 .000
00455> [XIMP=.65:TIMP=.75]
00456> [SLP=2.00:DT= 1.00]
00457> [LOSS= 2 :CN= 68.0]
00458> R0004:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00459> DESIGN STANDHYD 1.0 07:207B 5.82 1.116 No_date 1:00 34.59 .692 .000
00460> [XIMP=.55:TIMP=.65]
00461> [SLP=2.00:DT= 1.00]
00462> [LOSS= 2 :CN= 68.0]
00463> R0004:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00464> DESIGN STANDHYD 1.0 08:208Pond .81 .055 No_date 1:43 45.01 .901 .000
00465> [XIMP=.90:TIMP=.90]
00466> [SLP= .00:DT= 1.00]
00467> [LOSS= 2 :CN= 50.0]
00468> R0004:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00469> ADD HYD 1.0 05:External .56 .087 No_date 1:00 29.25 n/a .000
00470> + 1.0 06:207A 1.70 .396 No_date 1:00 38.18 n/a .000
00471> + 1.0 07:207B 5.82 1.116 No_date 1:00 34.59 n/a .000
00472> + 1.0 08:208Pond .81 .055 No_date 1:43 45.01 n/a .000
00473> SUM= 1.0 09:Pond 301 8.89 1.610 No_date 1:00 35.89 n/a .000
00474> R0004:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00475> ROUTE RESERVOIR -> 1.0 09:Pond 301 8.89 1.610 No_date 1:00 35.89 n/a .000
00476> out <= 1.0 10: 501 8.89 .064 No_date 3:05 35.89 n/a .000
00477> {MxStoUsed=.2633E+00 m3}
00478> R0004:C00013-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00479> DESIGN STANDHYD 1.0 01:206 .23 .047 No_date 1:00 34.59 .692 .000
00480> [XIMP=.55:TIMP=.65]

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00481> [SLP=2.00:DT= 1.00]
00482> [LOSS= 2 :CN= 68.0]
00483> R0004:C00014-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00484> ADD HYD 1.0 10: 501 8.89 .064 No_date 3:05 35.89 n/a .000
00485> + 1.0 01:206 .23 .047 No_date 1:00 34.59 n/a .000
00486> SUM= 1.0 02:Outlet B 9.12 .082 No_date 1:00 35.86 n/a .000
00487> R0004:C00015-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00488> DESIGN STANDHYD 1.0 03:202 .62 .125 No_date 1:00 34.59 .692 .000
00489> [XIMP=.55:TIMP=.65]
00490> [SLP=2.00:DT= 1.00]
00491> [LOSS= 2 :CN= 68.0]
00492> R0004:C00016-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00493> DESIGN STANDHYD 1.0 04:203 .38 .037 No_date 1:00 21.57 .432 .000
00494> [XIMP=.20:TIMP=.25]
00495> [SLP=5.00:DT= 1.00]
00496> [LOSS= 2 :CN= 68.0]
00497> R0004:C00017-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00498> DESIGN STANDHYD 1.0 05:204 .16 .032 No_date 1:00 34.59 .692 .000
00499> [XIMP=.55:TIMP=.65]
00500> [SLP=2.00:DT= 1.00]
00501> [LOSS= 2 :CN= 68.0]
00502> R0004:C00018-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00503> DESIGN STANDHYD 1.0 06:205 .18 .036 No_date 1:00 34.59 .692 .000
00504> [XIMP=.55:TIMP=.65]
00505> [SLP=2.00:DT= 1.00]
00506> [LOSS= 2 :CN= 68.0]
00507> R0004:C00019-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00508> ADD HYD 1.0 03:202 .62 .125 No_date 1:00 34.59 n/a .000
00509> + 1.0 04:203 .38 .037 No_date 1:00 21.57 n/a .000
00510> + 1.0 05:204 .16 .032 No_date 1:00 34.59 n/a .000
00511> + 1.0 06:205 .18 .036 No_date 1:00 34.59 n/a .000
00512> SUM= 1.0 07: 303 1.34 .231 No_date 1:00 30.90 n/a .000
00513> R0004:C00020-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00514> DESIGN STANDHYD 1.0 08:201 Out C .75 .151 No_date 1:00 34.59 .692 .000
00515> [XIMP=.55:TIMP=.65]
00516> [SLP=2.00:DT= 1.00]
00517> [LOSS= 2 :CN= 68.0]
00518> ** END OF RUN : 4
00519>
00520> *****
00521>
00522>
00523>
00524>
00525>
00526> RUN#:COMMAND#
00527> R0005:C00001-----
00528> START
00529> [TZERO = .00 hrs on 0]
00530> [METOUT= 2 (1=imperial, 2=metric output)]
00531> [NSTORM= 1 ]
00532> [NRUN = 0005 ]
00533> #*****
00534> # Project Name: [Town of Clifford ] Project Number: [22-471]
00535> # [Post-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00536> # Date : [March, 2025]
00537> # Modeller : [A.J.]
00538> # Company : Urbtech Engineering Inc.
00539> # License # : 3556752
00540> #*****
00541> R0005:C00002-----
00542> READ STORM
00543> Filename = storm.001
00544> Comment = Chicago Storm
00545> [SDT=10.00:SDUR= 3.00:PTOT= 58.89]
00546> R0005:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00547> DESIGN STANDHYD 1.0 01:104 .10 .019 No_date 1:00 35.91 .610 .000
00548> [XIMP=.40:TIMP=.50]
00549> [SLP=2.00:DT= 1.00]
00550> [LOSS= 2 :CN= 68.0]
00551> R0005:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00552> DESIGN STANDHYD 1.0 02:105 .07 .013 No_date 1:00 35.91 .610 .000
00553> [XIMP=.40:TIMP=.50]
00554> [SLP=2.00:DT= 1.00]
00555> [LOSS= 2 :CN= 68.0]
00556> R0005:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00557> DESIGN STANDHYD 1.0 03:106 .23 .044 No_date 1:00 35.91 .610 .000
00558> [XIMP=.40:TIMP=.50]
00559> [SLP=2.00:DT= 1.00]
00560> [LOSS= 2 :CN= 68.0]

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00561> R0005:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00562>   DESIGN STANDHYD      1.0 04:107      .16      .030 No_date    1:00    35.91 .610    .000
00563>   [XIMP=.40:TIMP=.50]
00564>   [SLP=2.00:DT= 1.00]
00565>   [LOSS= 2 :CN= 68.0]
00566> R0005:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00567>   ADD HYD                1.0 01:104      .10      .019 No_date    1:00    35.91 n/a     .000
00568>   +                      1.0 02:105      .07      .013 No_date    1:00    35.91 n/a     .000
00569>   +                      1.0 03:106      .23      .044 No_date    1:00    35.91 n/a     .000
00570>   +                      1.0 04:107      .16      .030 No_date    1:00    35.91 n/a     .000
00571>   SUM=                   1.0 05:External .56      .106 No_date    1:00    35.91 n/a     .000
00572> R0005:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00573>   DESIGN STANDHYD      1.0 06:207A     1.70     .475 No_date    1:00    45.93 .780    .000
00574>   [XIMP=.65:TIMP=.75]
00575>   [SLP=2.00:DT= 1.00]
00576>   [LOSS= 2 :CN= 68.0]
00577> R0005:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00578>   DESIGN STANDHYD      1.0 07:207B     5.82     1.357 No_date    1:00    41.90 .711    .000
00579>   [XIMP=.55:TIMP=.65]
00580>   [SLP=2.00:DT= 1.00]
00581>   [LOSS= 2 :CN= 68.0]
00582> R0005:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00583>   DESIGN STANDHYD      1.0 08:208Pond  .81      .070 No_date    1:39    53.34 .906    .000
00584>   [XIMP=.90:TIMP=.90]
00585>   [SLP= .00:DT= 1.00]
00586>   [LOSS= 2 :CN= 50.0]
00587> R0005:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00588>   ADD HYD                1.0 05:External .56      .106 No_date    1:00    35.91 n/a     .000
00589>   +                      1.0 06:207A     1.70     .475 No_date    1:00    45.93 n/a     .000
00590>   +                      1.0 07:207B     5.82     1.357 No_date    1:00    41.90 n/a     .000
00591>   +                      1.0 08:208Pond  .81      .070 No_date    1:39    53.34 n/a     .000
00592>   SUM=                   1.0 09:Pond 301  8.89     1.954 No_date    1:00    43.33 n/a     .000
00593> R0005:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00594>   ROUTE RESERVOIR ->    1.0 09:Pond 301  8.89     1.954 No_date    1:00    43.33 n/a     .000
00595>   out <=                 1.0 10:         501      8.89     .070 No_date    3:05    43.33 n/a     .000
00596>   {MxStoUsed=.3235E+00 m3}
00597> R0005:C00013-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00598>   DESIGN STANDHYD      1.0 01:206      .23      .057 No_date    1:00    41.90 .711    .000
00599>   [XIMP=.55:TIMP=.65]
00600>   [SLP=2.00:DT= 1.00]
00601>   [LOSS= 2 :CN= 68.0]
00602> R0005:C00014-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00603>   ADD HYD                1.0 10:         501      8.89     .070 No_date    3:05    43.33 n/a     .000
00604>   +                      1.0 01:206      .23      .057 No_date    1:00    41.90 n/a     .000
00605>   SUM=                   1.0 02:Outlet B  9.12     .097 No_date    1:00    43.30 n/a     .000
00606> R0005:C00015-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00607>   DESIGN STANDHYD      1.0 03:202      .62      .151 No_date    1:00    41.90 .711    .000
00608>   [XIMP=.55:TIMP=.65]
00609>   [SLP=2.00:DT= 1.00]
00610>   [LOSS= 2 :CN= 68.0]
00611> R0005:C00016-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00612>   DESIGN STANDHYD      1.0 04:203      .38      .048 No_date    1:00    27.21 .462    .000
00613>   [XIMP=.20:TIMP=.25]
00614>   [SLP=5.00:DT= 1.00]
00615>   [LOSS= 2 :CN= 68.0]
00616> R0005:C00017-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00617>   DESIGN STANDHYD      1.0 05:204      .16      .040 No_date    1:00    41.90 .711    .000
00618>   [XIMP=.55:TIMP=.65]
00619>   [SLP=2.00:DT= 1.00]
00620>   [LOSS= 2 :CN= 68.0]
00621> R0005:C00018-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00622>   DESIGN STANDHYD      1.0 06:205      .18      .045 No_date    1:00    41.89 .711    .000
00623>   [XIMP=.55:TIMP=.65]
00624>   [SLP=2.00:DT= 1.00]
00625>   [LOSS= 2 :CN= 68.0]
00626> R0005:C00019-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00627>   ADD HYD                1.0 03:202      .62      .151 No_date    1:00    41.90 n/a     .000
00628>   +                      1.0 04:203      .38      .048 No_date    1:00    27.21 n/a     .000
00629>   +                      1.0 05:204      .16      .040 No_date    1:00    41.90 n/a     .000
00630>   +                      1.0 06:205      .18      .045 No_date    1:00    41.89 n/a     .000
00631>   SUM=                   1.0 07:         303      1.34     .284 No_date    1:00    37.73 n/a     .000
00632> R0005:C00020-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00633>   DESIGN STANDHYD      1.0 08:201 Out C  .75      .183 No_date    1:00    41.90 .711    .000
00634>   [XIMP=.55:TIMP=.65]
00635>   [SLP=2.00:DT= 1.00]
00636>   [LOSS= 2 :CN= 68.0]
00637>   ** END OF RUN :      5
00638>
00639> *****
00640>

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00641>
00642>
00643>
00644>
00645> RUN#:COMMAND#
00646> R0006:C00001-----
00647> START
00648> [TZERO = .00 hrs on 0]
00649> [METOUT= 2 (1=imperial, 2=metric output)]
00650> [NSTORM= 1 ]
00651> [NRUN = 0006 ]
00652> #*****
00653> # Project Name: [Town of Clifford ] Project Number: [22-471]
00654> # [Post-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00655> # Date : [March, 2025]
00656> # Modeller : [A.J.]
00657> # Company : Urbtech Engineering Inc.
00658> # License # : 3556752
00659> #*****
00660> R0006:C00002-----
00661> READ STORM
00662> Filename = storm.001
00663> Comment = Chicago Storm
00664> [SDT=10.00:SDUR= 3.00:PTOT= 65.41]
00665> R0006:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00666> DESIGN STANDHYD 1.0 01:104 .10 .022 No_date 1:00 40.92 .626 .000
00667> [XIMP=.40:TIMP=.50]
00668> [SLP=2.00:DT= 1.00]
00669> [LOSS= 2 :CN= 68.0]
00670> R0006:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00671> DESIGN STANDHYD 1.0 02:105 .07 .015 No_date 1:00 40.92 .626 .000
00672> [XIMP=.40:TIMP=.50]
00673> [SLP=2.00:DT= 1.00]
00674> [LOSS= 2 :CN= 68.0]
00675> R0006:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00676> DESIGN STANDHYD 1.0 03:106 .23 .050 No_date 1:00 40.92 .626 .000
00677> [XIMP=.40:TIMP=.50]
00678> [SLP=2.00:DT= 1.00]
00679> [LOSS= 2 :CN= 68.0]
00680> R0006:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00681> DESIGN STANDHYD 1.0 04:107 .16 .035 No_date 1:00 40.92 .626 .000
00682> [XIMP=.40:TIMP=.50]
00683> [SLP=2.00:DT= 1.00]
00684> [LOSS= 2 :CN= 68.0]
00685> R0006:C00007-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00686> ADD HYD 1.0 01:104 .10 .022 No_date 1:00 40.92 n/a .000
00687> + 1.0 02:105 .07 .015 No_date 1:00 40.92 n/a .000
00688> + 1.0 03:106 .23 .050 No_date 1:00 40.92 n/a .000
00689> + 1.0 04:107 .16 .035 No_date 1:00 40.92 n/a .000
00690> SUM= 1.0 05:External .56 .123 No_date 1:00 40.92 n/a .000
00691> R0006:C00008-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00692> DESIGN STANDHYD 1.0 06:207A 1.70 .537 No_date 1:00 51.67 .790 .000
00693> [XIMP=.65:TIMP=.75]
00694> [SLP=2.00:DT= 1.00]
00695> [LOSS= 2 :CN= 68.0]
00696> R0006:C00009-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00697> DESIGN STANDHYD 1.0 07:207B 5.82 1.528 No_date 1:00 47.35 .724 .000
00698> [XIMP=.55:TIMP=.65]
00699> [SLP=2.00:DT= 1.00]
00700> [LOSS= 2 :CN= 68.0]
00701> R0006:C00010-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00702> DESIGN STANDHYD 1.0 08:208Pond .81 .081 No_date 1:36 59.44 .909 .000
00703> [XIMP=.90:TIMP=.90]
00704> [SLP= .00:DT= 1.00]
00705> [LOSS= 2 :CN= 50.0]
00706> R0006:C00011-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00707> ADD HYD 1.0 05:External .56 .123 No_date 1:00 40.92 n/a .000
00708> + 1.0 06:207A 1.70 .537 No_date 1:00 51.67 n/a .000
00709> + 1.0 07:207B 5.82 1.528 No_date 1:00 47.35 n/a .000
00710> + 1.0 08:208Pond .81 .081 No_date 1:36 59.44 n/a .000
00711> SUM= 1.0 09:Pond 301 8.89 2.209 No_date 1:00 48.87 n/a .000
00712> R0006:C00012-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00713> ROUTE RESERVOIR -> 1.0 09:Pond 301 8.89 2.209 No_date 1:00 48.87 n/a .000
00714> out <= 1.0 10: 501 8.89 .075 No_date 3:05 48.87 n/a .000
00715> {MxStoUsed=.3690E+00 m3}
00716> R0006:C00013-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm---RVmm-R.C.---DWFcms
00717> DESIGN STANDHYD 1.0 01:206 .23 .064 No_date 1:00 47.35 .724 .000
00718> [XIMP=.55:TIMP=.65]
00719> [SLP=2.00:DT= 1.00]
00720> [LOSS= 2 :CN= 68.0]

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00721> R0006:C00014-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00722>   ADD HYD                1.0 10:          501      8.89      .075 No_date   3:05   48.87 n/a      .000
00723>           +                1.0 01:206          .23      .064 No_date   1:00   47.35 n/a      .000
00724>           SUM=            1.0 02:Outlet B      9.12     .108 No_date   1:00   48.83 n/a      .000
00725> R0006:C00015-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00726>   DESIGN STANDHYD        1.0 03:202          .62     .172 No_date   1:00   47.35 .724    .000
00727>   [XIMP=.55:TIMP=.65]
00728>   [SLP=2.00:DT= 1.00]
00729>   [LOSS= 2 :CN= 68.0]
00730> R0006:C00016-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00731>   DESIGN STANDHYD        1.0 04:203          .38     .058 No_date   1:00   31.54 .482    .000
00732>   [XIMP=.20:TIMP=.25]
00733>   [SLP=5.00:DT= 1.00]
00734>   [LOSS= 2 :CN= 68.0]
00735> R0006:C00017-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00736>   DESIGN STANDHYD        1.0 05:204          .16     .045 No_date   1:00   47.35 .724    .000
00737>   [XIMP=.55:TIMP=.65]
00738>   [SLP=2.00:DT= 1.00]
00739>   [LOSS= 2 :CN= 68.0]
00740> R0006:C00018-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00741>   DESIGN STANDHYD        1.0 06:205          .18     .050 No_date   1:00   47.35 .724    .000
00742>   [XIMP=.55:TIMP=.65]
00743>   [SLP=2.00:DT= 1.00]
00744>   [LOSS= 2 :CN= 68.0]
00745> R0006:C00019-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00746>   ADD HYD                1.0 03:202          .62     .172 No_date   1:00   47.35 n/a      .000
00747>           +                1.0 04:203          .38     .058 No_date   1:00   31.54 n/a      .000
00748>           +                1.0 05:204          .16     .045 No_date   1:00   47.35 n/a      .000
00749>           +                1.0 06:205          .18     .050 No_date   1:00   47.35 n/a      .000
00750>           SUM=            1.0 07:          303      1.34     .325 No_date   1:00   42.86 n/a      .000
00751> R0006:C00020-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00752>   DESIGN STANDHYD        1.0 08:201 Out C      .75     .208 No_date   1:00   47.35 .724    .000
00753>   [XIMP=.55:TIMP=.65]
00754>   [SLP=2.00:DT= 1.00]
00755>   [LOSS= 2 :CN= 68.0]
00756> ** END OF RUN :      6
00757>
00758> *****
00759>
00760>
00761>
00762>
00763>
00764> RUN#:COMMAND#
00765> R0007:C00001-----
00766>   START
00767>   [TZERO = .00 hrs on      0]
00768>   [METOUT= 2 (1=imperial, 2=metric output)]
00769>   [NSTORM= 1 ]
00770>   [NRUN = 0007 ]
00771> #*****
00772> # Project Name: [Town of Clifford ] Project Number: [22-471]
00773> # [Post-development flows, FIRST FLUSH AND 2yr to 100yr] MTO 3hr Ch]
00774> # Date : [March, 2025]
00775> # Modeller : [A.J.]
00776> # Company : Urbtech Engineering Inc.
00777> # License # : 3556752
00778> #*****
00779> R0007:C00002-----
00780>   READ STORM
00781>   Filename = storm.001
00782>   Comment = Chicago Storm
00783>   [SDT=10.00:SDUR= 3.00:PTOT= 71.71]
00784> R0007:C00003-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00785>   DESIGN STANDHYD        1.0 01:104          .10     .025 No_date   1:00   45.88 .640    .000
00786>   [XIMP=.40:TIMP=.50]
00787>   [SLP=2.00:DT= 1.00]
00788>   [LOSS= 2 :CN= 68.0]
00789> R0007:C00004-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00790>   DESIGN STANDHYD        1.0 02:105          .07     .018 No_date   1:00   45.87 .640    .000
00791>   [XIMP=.40:TIMP=.50]
00792>   [SLP=2.00:DT= 1.00]
00793>   [LOSS= 2 :CN= 68.0]
00794> R0007:C00005-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00795>   DESIGN STANDHYD        1.0 03:106          .23     .056 No_date   1:00   45.88 .640    .000
00796>   [XIMP=.40:TIMP=.50]
00797>   [SLP=2.00:DT= 1.00]
00798>   [LOSS= 2 :CN= 68.0]
00799> R0007:C00006-----DTmin-ID:NHYD-----AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.----DWFcms
00800>   DESIGN STANDHYD        1.0 04:107          .16     .040 No_date   1:00   45.88 .640    .000

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00801> [XIMP=.40:TIMP=.50]
00802> [SLP=2.00:DT= 1.00]
00803> [LOSS= 2 :CN= 68.0]
00804> R0007:C00007-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00805> ADD HYD 1.0 01:104 .10 .025 No_date 1:00 45.88 n/a .000
00806> + 1.0 02:105 .07 .018 No_date 1:00 45.87 n/a .000
00807> + 1.0 03:106 .23 .056 No_date 1:00 45.88 n/a .000
00808> + 1.0 04:107 .16 .040 No_date 1:00 45.88 n/a .000
00809> SUM= 1.0 05:External .56 .139 No_date 1:00 45.88 n/a .000
00810> R0007:C00008-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00811> DESIGN STANDHYD 1.0 06:207A 1.70 .594 No_date 1:00 57.28 .799 .000
00812> [XIMP=.65:TIMP=.75]
00813> [SLP=2.00:DT= 1.00]
00814> [LOSS= 2 :CN= 68.0]
00815> R0007:C00009-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00816> DESIGN STANDHYD 1.0 07:207B 5.82 1.726 No_date 1:00 52.69 .735 .000
00817> [XIMP=.55:TIMP=.65]
00818> [SLP=2.00:DT= 1.00]
00819> [LOSS= 2 :CN= 68.0]
00820> R0007:C00010-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00821> DESIGN STANDHYD 1.0 08:208Pond .81 .092 No_date 1:34 65.34 .911 .000
00822> [XIMP=.90:TIMP=.90]
00823> [SLP= .00:DT= 1.00]
00824> [LOSS= 2 :CN= 50.0]
00825> R0007:C00011-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00826> ADD HYD 1.0 05:External .56 .139 No_date 1:00 45.88 n/a .000
00827> + 1.0 06:207A 1.70 .594 No_date 1:00 57.28 n/a .000
00828> + 1.0 07:207B 5.82 1.726 No_date 1:00 52.69 n/a .000
00829> + 1.0 08:208Pond .81 .092 No_date 1:34 65.34 n/a .000
00830> SUM= 1.0 09:Pond 301 8.89 2.484 No_date 1:00 54.29 n/a .000
00831> R0007:C00012-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00832> ROUTE RESERVOIR -> 1.0 09:Pond 301 8.89 2.484 No_date 1:00 54.29 n/a .000
00833> out <= 1.0 10: 501 8.89 .079 No_date 3:05 54.29 n/a .000
00834> {MxStoUsed=.4134E+00 m3}
00835> R0007:C00013-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00836> DESIGN STANDHYD 1.0 01:206 .23 .072 No_date 1:00 52.69 .735 .000
00837> [XIMP=.55:TIMP=.65]
00838> [SLP=2.00:DT= 1.00]
00839> [LOSS= 2 :CN= 68.0]
00840> R0007:C00014-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00841> ADD HYD 1.0 10: 501 8.89 .079 No_date 3:05 54.29 n/a .000
00842> + 1.0 01:206 .23 .072 No_date 1:00 52.69 n/a .000
00843> SUM= 1.0 02:Outlet B 9.12 .120 No_date 1:00 54.25 n/a .000
00844> R0007:C00015-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00845> DESIGN STANDHYD 1.0 03:202 .62 .191 No_date 1:00 52.69 .735 .000
00846> [XIMP=.55:TIMP=.65]
00847> [SLP=2.00:DT= 1.00]
00848> [LOSS= 2 :CN= 68.0]
00849> R0007:C00016-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00850> DESIGN STANDHYD 1.0 04:203 .38 .067 No_date 1:00 35.86 .500 .000
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00855> DESIGN STANDHYD 1.0 05:204 .16 .050 No_date 1:00 52.69 .735 .000
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00858> [LOSS= 2 :CN= 68.0]
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00860> DESIGN STANDHYD 1.0 06:205 .18 .056 No_date 1:00 52.69 .735 .000
00861> [XIMP=.55:TIMP=.65]
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00863> [LOSS= 2 :CN= 68.0]
00864> R0007:C00019-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00865> ADD HYD 1.0 03:202 .62 .191 No_date 1:00 52.69 n/a .000
00866> + 1.0 04:203 .38 .067 No_date 1:00 35.86 n/a .000
00867> + 1.0 05:204 .16 .050 No_date 1:00 52.69 n/a .000
00868> + 1.0 06:205 .18 .056 No_date 1:00 52.69 n/a .000
00869> SUM= 1.0 07: 303 1.34 .364 No_date 1:00 47.92 n/a .000
00870> R0007:C00020-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00871> DESIGN STANDHYD 1.0 08:201 Out C .75 .231 No_date 1:00 52.69 .735 .000
00872> [XIMP=.55:TIMP=.65]
00873> [SLP=2.00:DT= 1.00]
00874> [LOSS= 2 :CN= 68.0]
00875> R0007:C00002-----DTmin-ID:NHYD-----AREAh-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00876> FINISH
00877> -----
00878> *****
00879> WARNINGS / ERRORS / NOTES
00880> -----

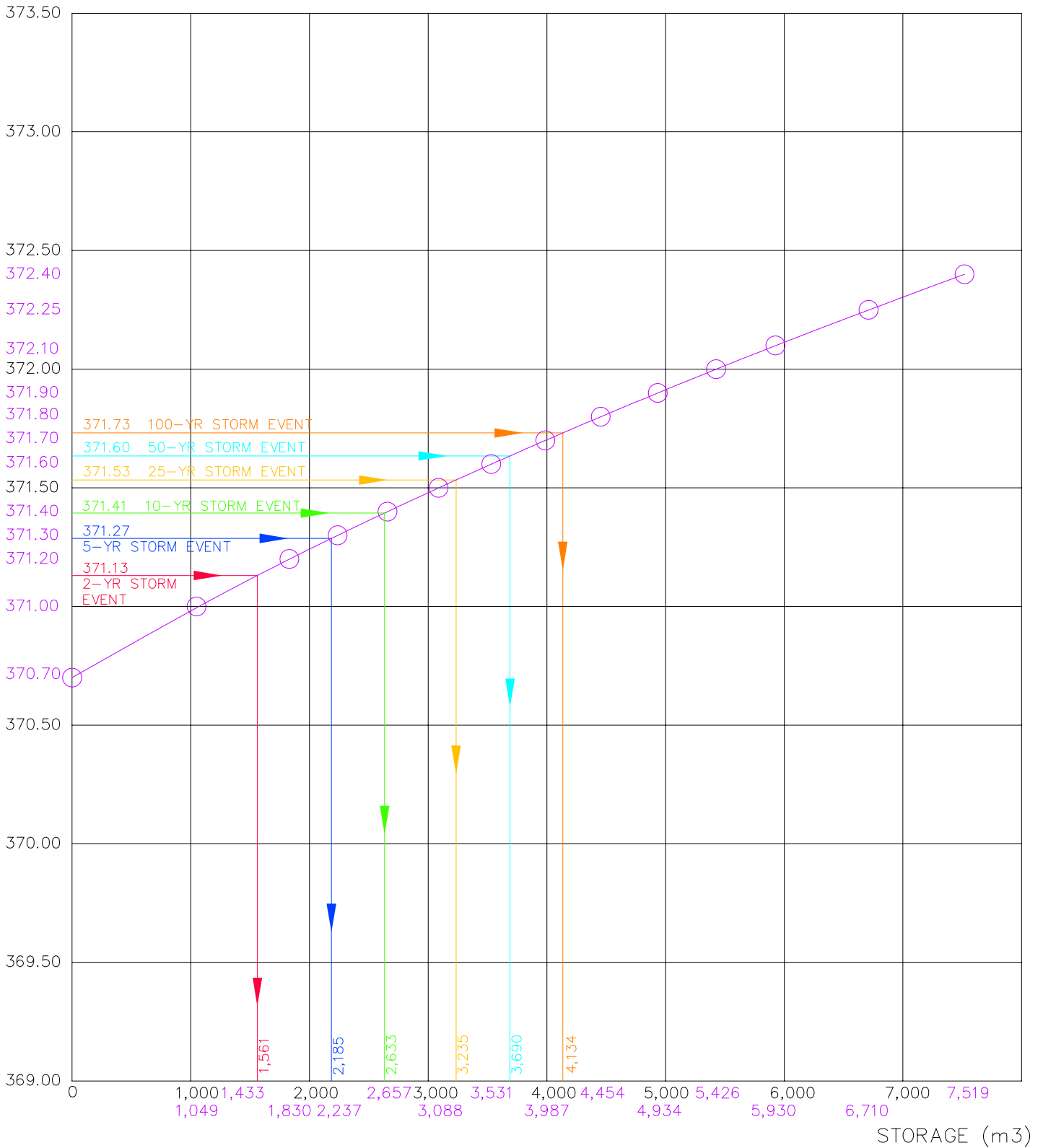
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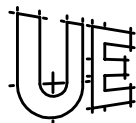
00883>

STAGE (m)



**STAGE STORAGE CURVE
41 PARK ST WEST
CLIFFORD**

REVISED MARCH 27, 2025



Urbtech Engineering Inc.

1200 Speers , Suite 8, Oakville, Ontario, L6L 2X4
Telephone: 905 896 7364

$$Q = C * A * (h * 9.81 * 2)^{0.5}$$

Orifice 1 Diameter 195 mm
A 0.0298 m²
Orifice Plate Elevation 370.70 m
C 0.62

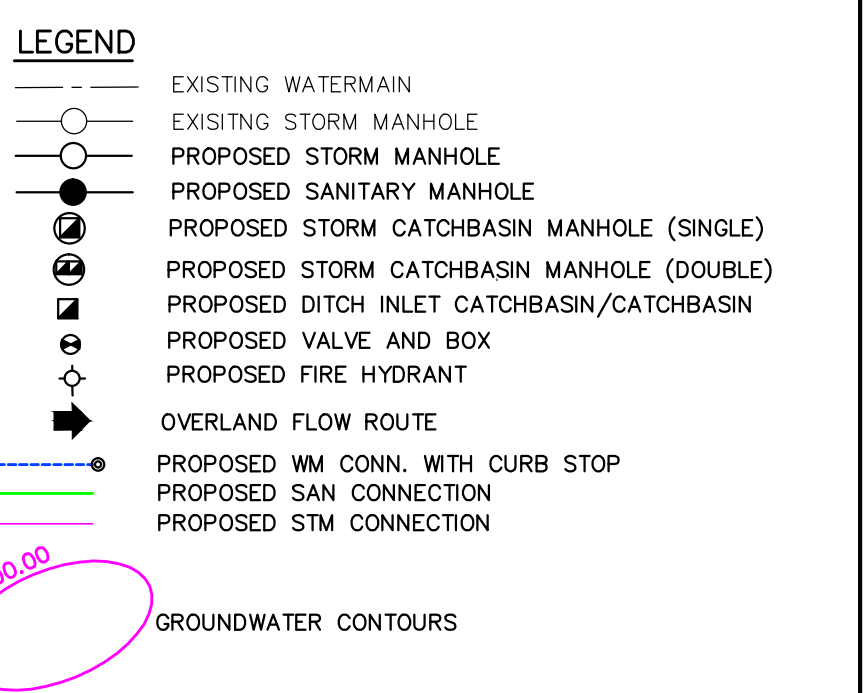
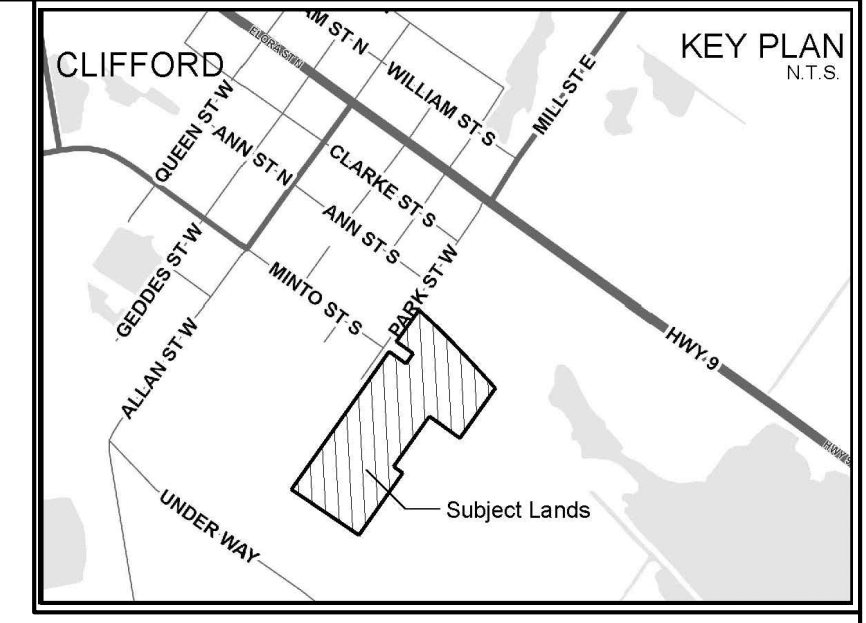
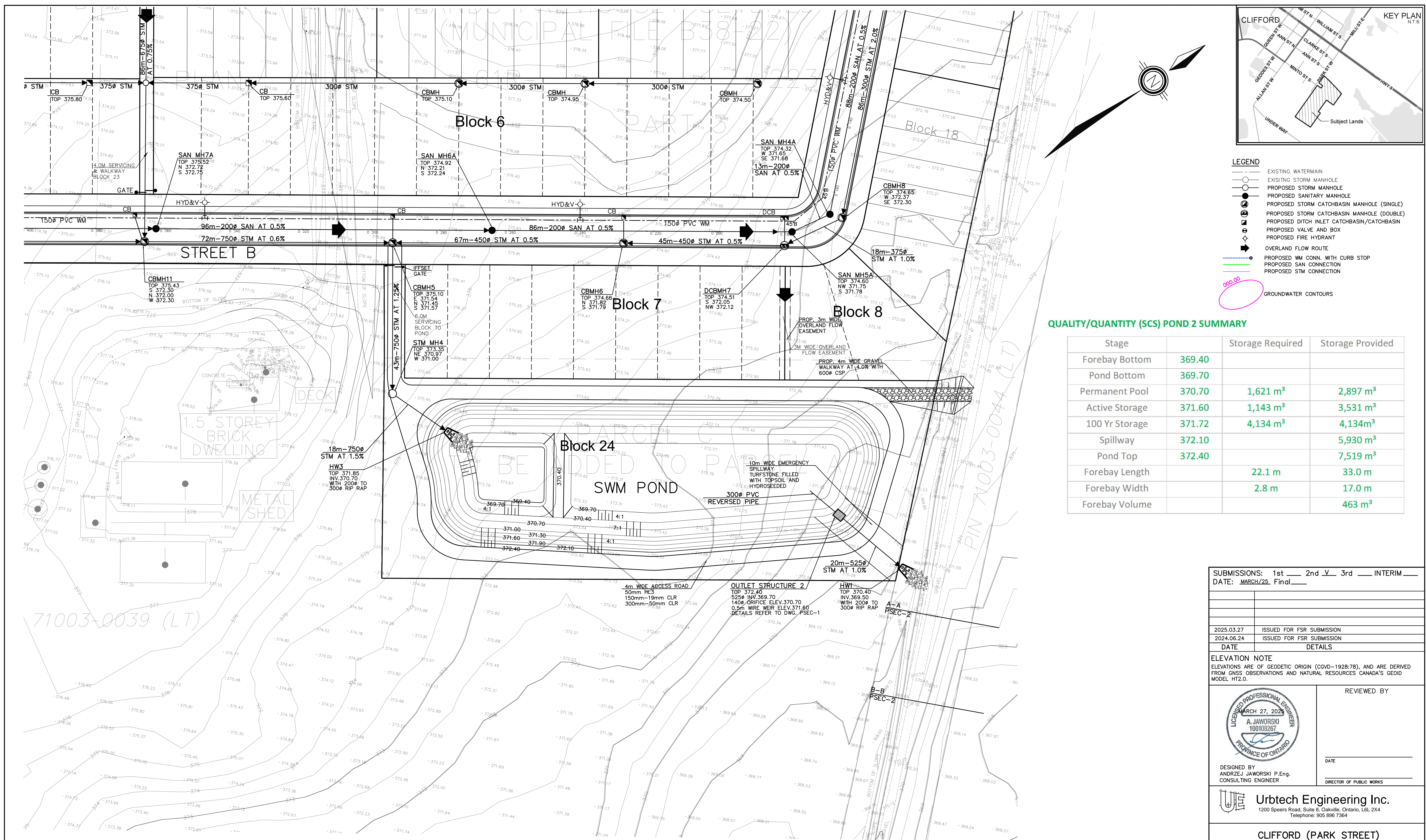
$$Q = C * L * H^{3/2}$$

Weir Width 0.50 m
Weir Elevation 371.60 m
C 1.84

$$Q = C * L * H^{3/2}$$

L 10.00 m
Spillway Elevation 372.10 m
C 1.7

Elevation m	Depth at Orifice 1 m	Depth at Weir m	Depth at Spillway m	Orifice 1 Flow m ³ /s	Weir Flow m ³ /s	Spillway Flow m ³ /s	Pond Area m ²	Pond Volume m ³	Total Flow m ³ /s	Emptying Time hr	Cumm. Time hr	
369.40							313					
369.70							1,803	463				
370.40							2,644	2,019				463m ³ Forebay
370.70							3,203	2,897				Permanent Pool
371.00	0.20			0.037			3,789	1,049	0.037	12	12	
371.10	0.30			0.045			3,903	1,433	0.045	3	14	
371.20	0.40			0.052			4,019	1,830	0.052	2	17	
371.30	0.50			0.058			4,136	2,237	0.058	2	19	
371.40	0.60			0.064			4,254	2,657	0.064	2	21	
371.50	0.70			0.069			4,372	3,088	0.069	2	22	
371.60	0.80			0.073			4,492	3,531	0.073	2	24	Active Storage
371.70	0.90			0.078			4,613	3,987	0.078			
371.80	1.00			0.082			4,735	4,454	0.082			
371.90	1.10	0.30		0.086	0.151		4,858	4,934	0.237			
372.00	1.20	0.40		0.090	0.233		4,982	5,426	0.323			
372.10	1.30	0.50		0.094	0.325		5,106	5,930	0.419			Spillway
372.25	1.45	0.65		0.099	0.482		5,295	6,710	0.581			
372.40	1.60	0.80	0.30	0.104	0.658	2.793	5,487	7,519	3.555			Pond top



QUALITY/QUANTITY (SCS) POND 2 SUMMARY

Stage	Storage Required	Storage Provided
Forebay Bottom	369.40	
Pond Bottom	369.70	
Permanent Pool	370.70	1,621 m ³
Active Storage	371.60	1,143 m ³
100 Yr Storage	371.72	4,134 m ³
Spillway	372.10	5,930 m ³
Pond Top	372.40	7,519 m ³
Forebay Length	22.1 m	33.0 m
Forebay Width	2.8 m	17.0 m
Forebay Volume		463 m ³

SUBMISSIONS: 1st ___ 2nd V 3rd ___ INTERIM ___
 DATE: MARCH/25 Final ___

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

DESIGNED BY
 ANDRZEJ JAWORSKI P.Eng.
 CONSULTING ENGINEER

REVIEWED BY

DATE

DIRECTOR OF PUBLIC WORKS

Urbtech Engineering Inc.
 1200 Speers Road, Suite 8, Oakville, Ontario, L6L 2X4
 Telephone: 905 896 7364

CLIFFORD (PARK STREET) DEVELOPMENTS INC.
 41 PARK STREET WEST
 TOWN OF MINTO

TOWN OF MINTO

DRAWING NAME:
STORMWATER MANAGEMENT POND

SCALE: 1:500 AREA: MINTO PROJECT No.: 22-471
 DRAWN BY: G.J. CHECKED BY: A.J. PLAN No.: **POND1**

DEPTH AT OUTLE B

Q5 = 69 l/s

Side slope		Width m	Depth m	Slope %	Coefficient n	A m ²	P m	R m	V m/s	Q l/s	CI Elev m	WS Elev m
Left	Right											
8	2.2	0	0.15	1.3	0.035	0.12	1.60	0.07	0.58	69	369.01	369.16

Channel light brush 0.035

DEPTH AT OUTLE B

Q100 = 120 l/s

Side slope		Width m	Depth m	Slope %	Coefficient n	A m ²	P m	R m	V m/s	Q l/s	CI Elev m	WS Elev m
Left	Right											
8	2.2	0	0.19	1.3	0.035	0.18	1.98	0.09	0.66	120	369.01	369.20

Channel light brush 0.035

DEPTH AT OUTLE B

Q5 = 70 l/s

Side slope		Width m	Depth m	Slope %	Coefficient n	A m ²	P m	R m	V m/s	Q l/s	CI Elev m	WS Elev m
Left	Right											
13	2.5	0	0.13	1.2	0.035	0.14	2.09	0.07	0.51	70	368.69	368.82

Channel light brush 0.035

DEPTH AT OUTLE B

Q100 = 125 l/s

Side slope		Width m	Depth m	Slope %	Coefficient n	A m ²	P m	R m	V m/s	Q l/s	CI Elev m	WS Elev m
Left	Right											
13	2.5	0	0.17	1.2	0.035	0.21	2.60	0.08	0.59	125	368.69	368.86

Channel light brush 0.035

APPENDIX C

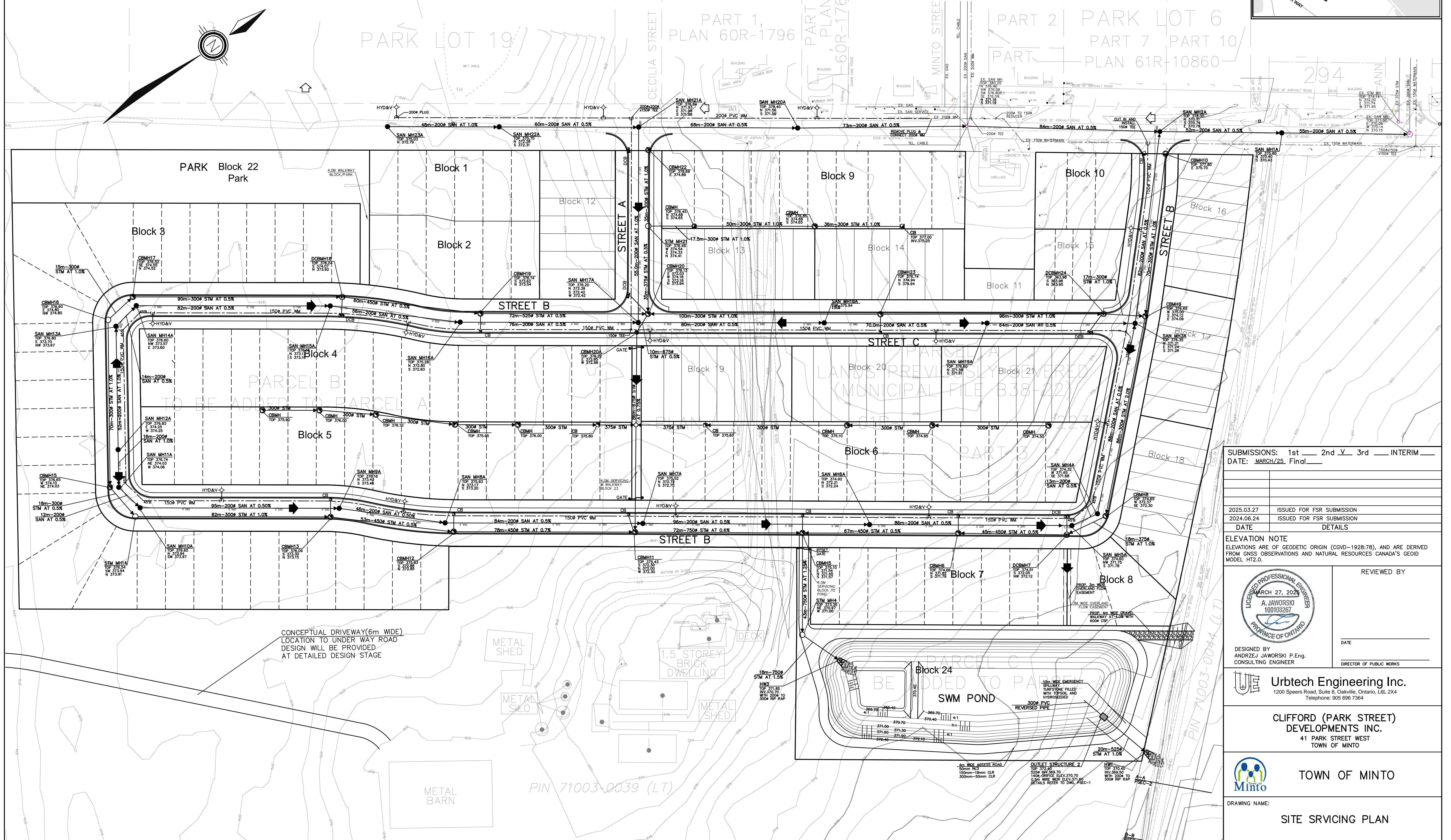
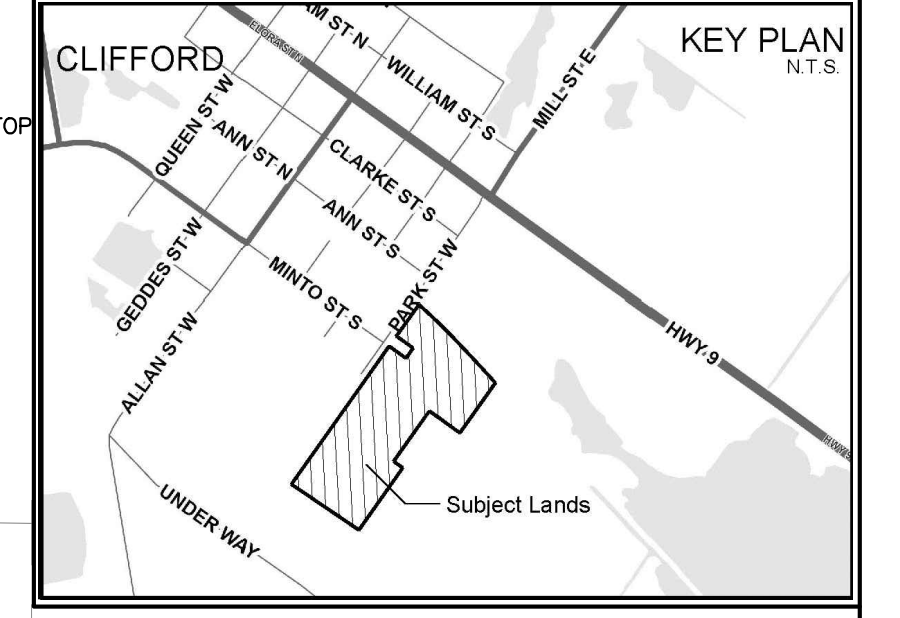
- Site Servicing Plan (S1)
 - Site Grading Plan (G1)
 - Sediment Control Plan (SED1)
 - Erosion & Sediment Control Details (SN1)
-

- NOTE:
1. ALL SANITARY SEWER SYSTEM SHALL BE CONSTRUCTED OF MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION AND ARE TO BE PRESSURE TESTED WITH A LOW AIR PRESSURE TEST OF 5 PSI AS PER OPSS 410 PERFORMED IN SITU DURING CONSTRUCTION.
 2. THE SANITARY SEWER PIPE JOINTS MUST BE CERTIFIED TO 50 PSI HYDROSTATIC PRESSURE (ON LAB, MANUFACTURING FACILITY OR IN SITU) BY A THIRD PARTY ACCREDITED BY THE STANDARDS COUNCIL OF CANADA.
 3. THE SANITARY SEWER PIPES SHALL ALSO BE MANDREL TESTED OR TESTED BY LASER PROFILE WITH SATISFACTORY RESULTS.
 4. SANITARY SERVICES ARE TO BE PRESSURE TESTED WITH A LOW AIR PRESSURE TEST OF 5 PSI AS PER OPSS 410 PERFORMED IN SITU DURING CONSTRUCTION.
 5. SANITARY SERVICES MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 0.50m WHEN CROSSING UNDER OR OVER THE WATERMAIN.

LEGEND

- EXISTING WATERMAIN
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED STORM CATCHBASIN MANHOLE (SINGLE)
- PROPOSED STORM CATCHBASIN MANHOLE (DOUBLE)
- PROPOSED DITCH INLET CATCHBASIN/CATCHBASIN
- PROPOSED VALVE AND BOX
- PROPOSED FIRE HYDRANT

- EXIST. OVERLAND FLOW ROUTE
- OVERLAND FLOW ROUTE
- PROPOSED WM CONN. WITH CURB STOP
- PROPOSED SAN CONNECTION
- PROPOSED STM CONNECTION



SUBMISSIONS: 1st ___ 2nd V 3rd ___ INTERIM ___
 DATE: MARCH/25 Final

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DESIGNED BY
ANDRZEJ JAWORSKI P.Eng.
 CONSULTING ENGINEER

REVIEWED BY

 DATE: _____
 DIRECTOR OF PUBLIC WORKS

Urbtech Engineering Inc.
 1200 Speers Road, Suite 8, Oakville, Ontario, L6L 2K4
 Telephone: 905 896 7364

CLIFFORD (PARK STREET) DEVELOPMENTS INC.
 41 PARK STREET WEST
 TOWN OF MINTO

TOWN OF MINTO

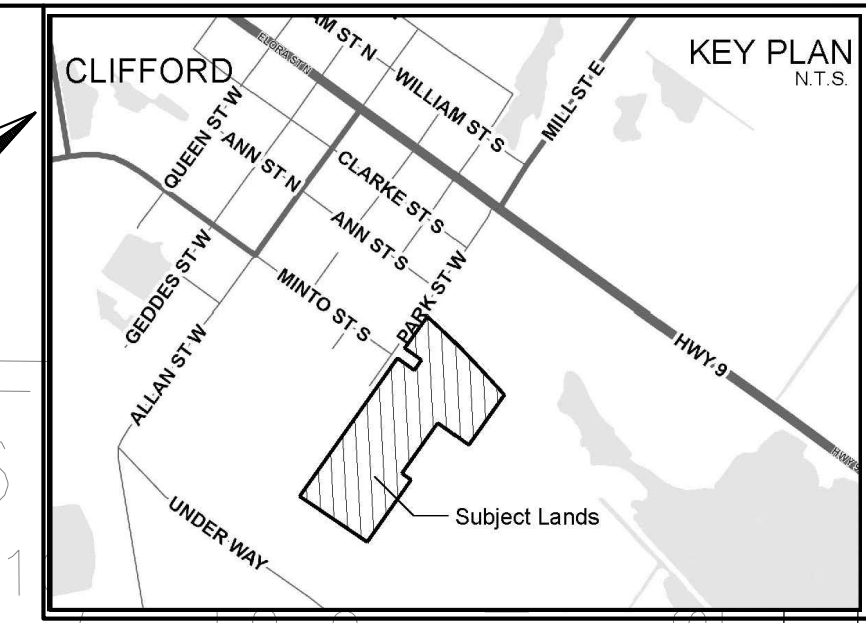
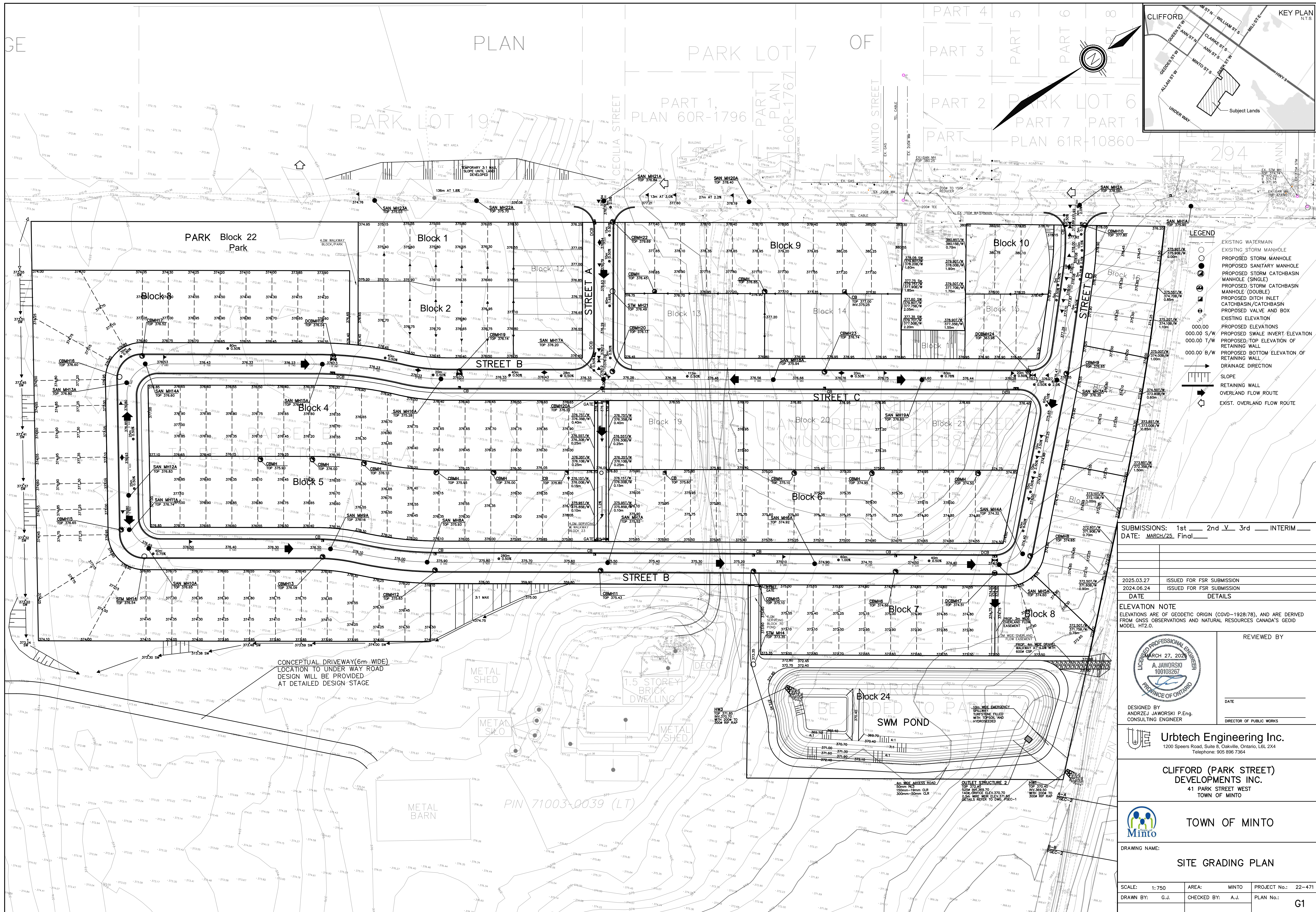
DRAWING NAME:
SITE SRVICING PLAN

SCALE: 1:750	AREA: MINTO	PROJECT No.: 22-471
DRAWN BY: G.J.	CHECKED BY: A.J.	PLAN No.: S1

CONCEPTUAL DRIVEWAY(6m WIDE)
 LOCATION TO UNDER WAY ROAD
 DESIGN WILL BE PROVIDED
 AT DETAILED DESIGN STAGE

PIN 71003-0039 (LT)

PIN 71003-0044 (LT)



- LEGEND**
- EXISTING WATERMAIN
 - EXISTING STORM MANHOLE
 - PROPOSED STORM MANHOLE
 - PROPOSED SANITARY MANHOLE
 - PROPOSED STORM CATCHBASIN MANHOLE (SINGLE)
 - PROPOSED STORM CATCHBASIN MANHOLE (DOUBLE)
 - PROPOSED DITCH INLET CATCHBASIN/CATCHBASIN
 - PROPOSED VALVE AND BOX
 - EXISTING ELEVATION
 - 000.00 PROPOSED ELEVATIONS
 - 000.00 S/W PROPOSED SLOPE INVERT ELEVATION
 - 000.00 T/W PROPOSED TOP ELEVATION OF RETAINING WALL
 - 000.00 B/W PROPOSED BOTTOM ELEVATION OF RETAINING WALL
 - DRAINAGE DIRECTION
 - SLOPE
 - RETAINING WALL
 - OVERLAND FLOW ROUTE
 - EXIST. OVERLAND FLOW ROUTE

SUBMISSIONS: 1st ___ 2nd ✓ 3rd ___ INTERIM
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DESIGNED BY
ANDRZEJ JAWORSKI P.Eng.
 CONSULTING ENGINEER

REVIEWED BY

 DATE

 DIRECTOR OF PUBLIC WORKS

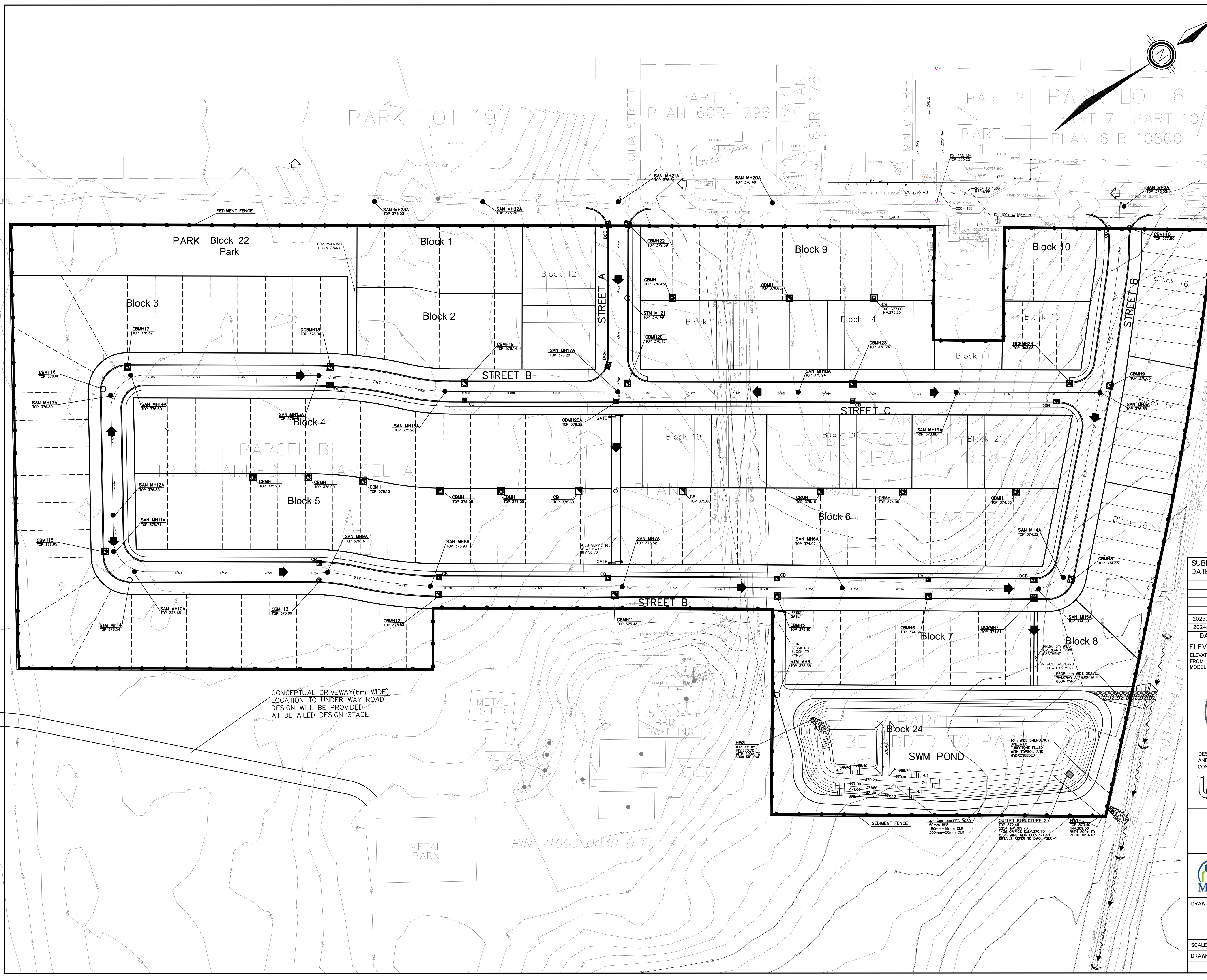
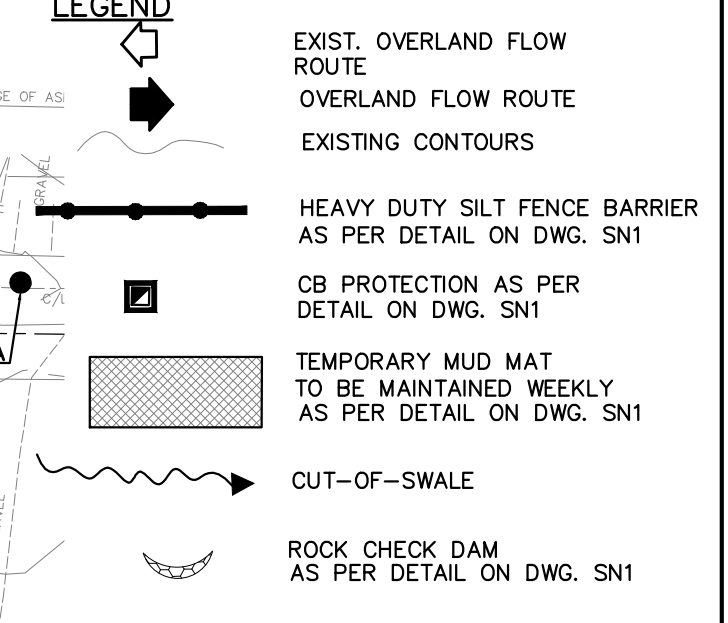
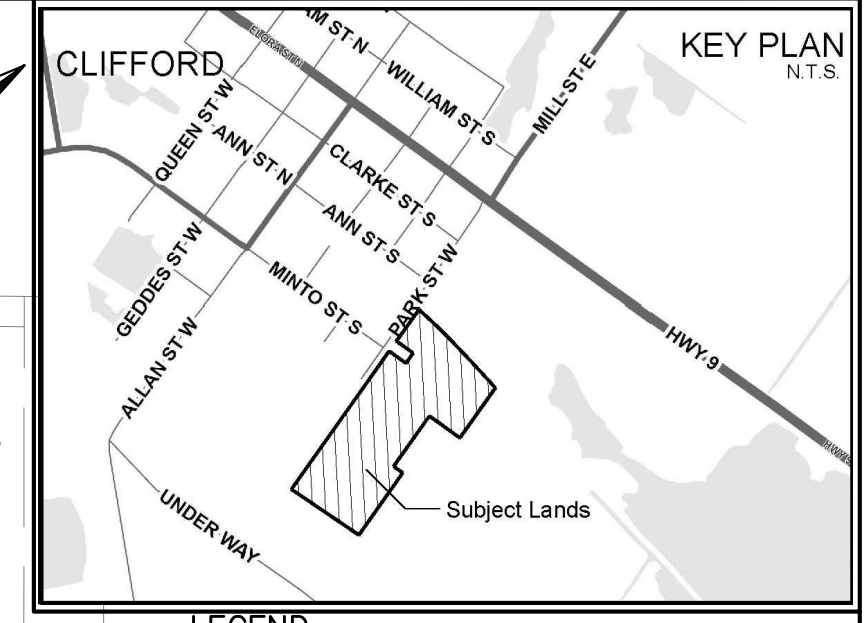
Urbtech Engineering Inc.
 1200 Speers Road, Suite 8, Oakville, Ontario, L6L 2X4
 Telephone: 905 896 7364

CLIFFORD (PARK STREET) DEVELOPMENTS INC.
 41 PARK STREET WEST
 TOWN OF MINTO

TOWN OF MINTO

DRAWING NAME:
SITE GRADING PLAN

SCALE: 1:750	AREA: MINTO	PROJECT No.: 22-471
DRAWN BY: G.J.	CHECKED BY: A.J.	PLAN No.: G1



SUBMISSIONS: 1st ____ 2nd V 3rd ____ INTERIM ____
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	REVIEWED BY
	DATE
DESIGNED BY ANDRZEJ JAWORSKI P.Eng. CONSULTING ENGINEER	DIRECTOR OF PUBLIC WORKS

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CLIFFORD (PARK STREET) DEVELOPMENTS INC.
 41 PARK STREET WEST
 TOWN OF MINTO



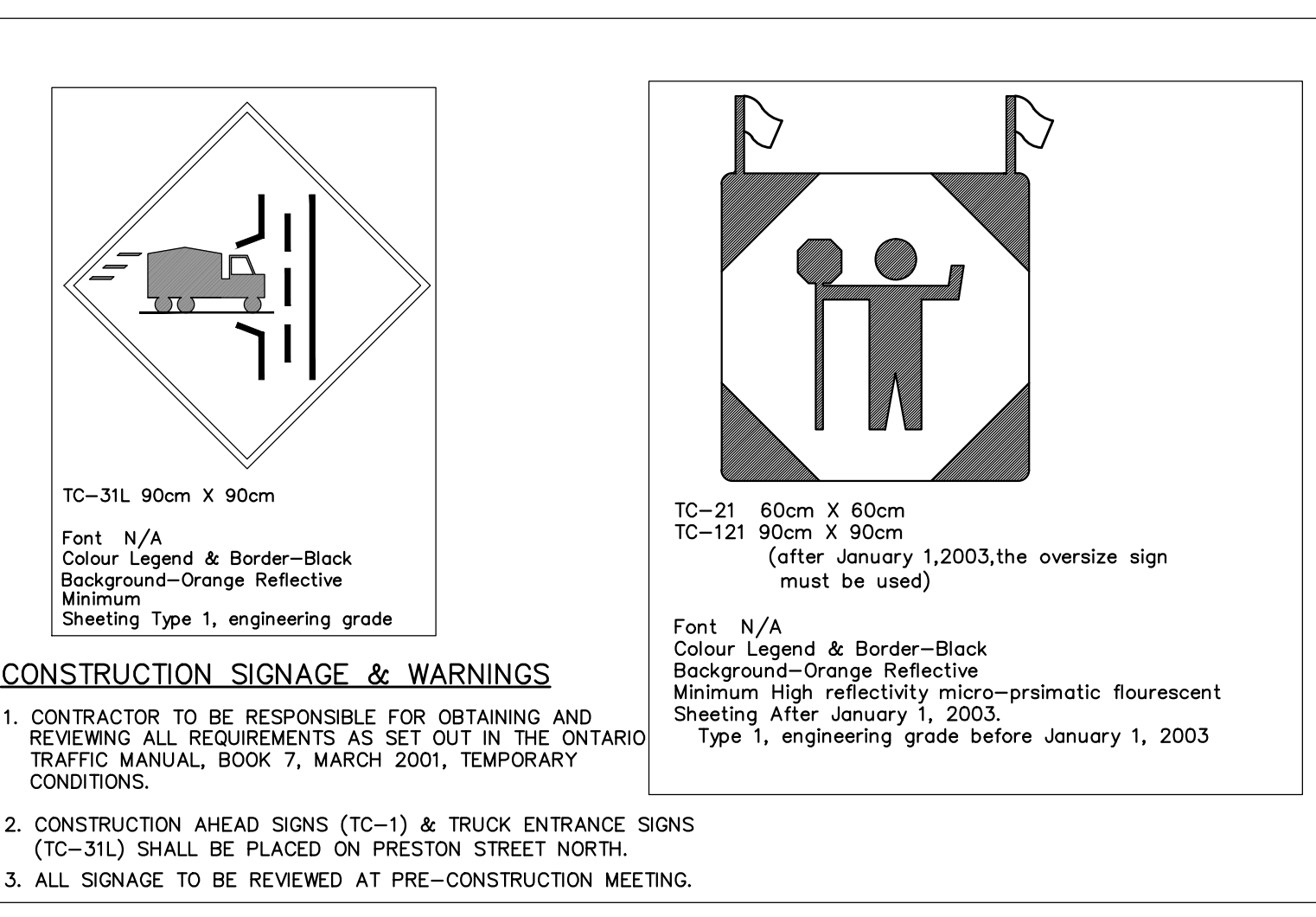
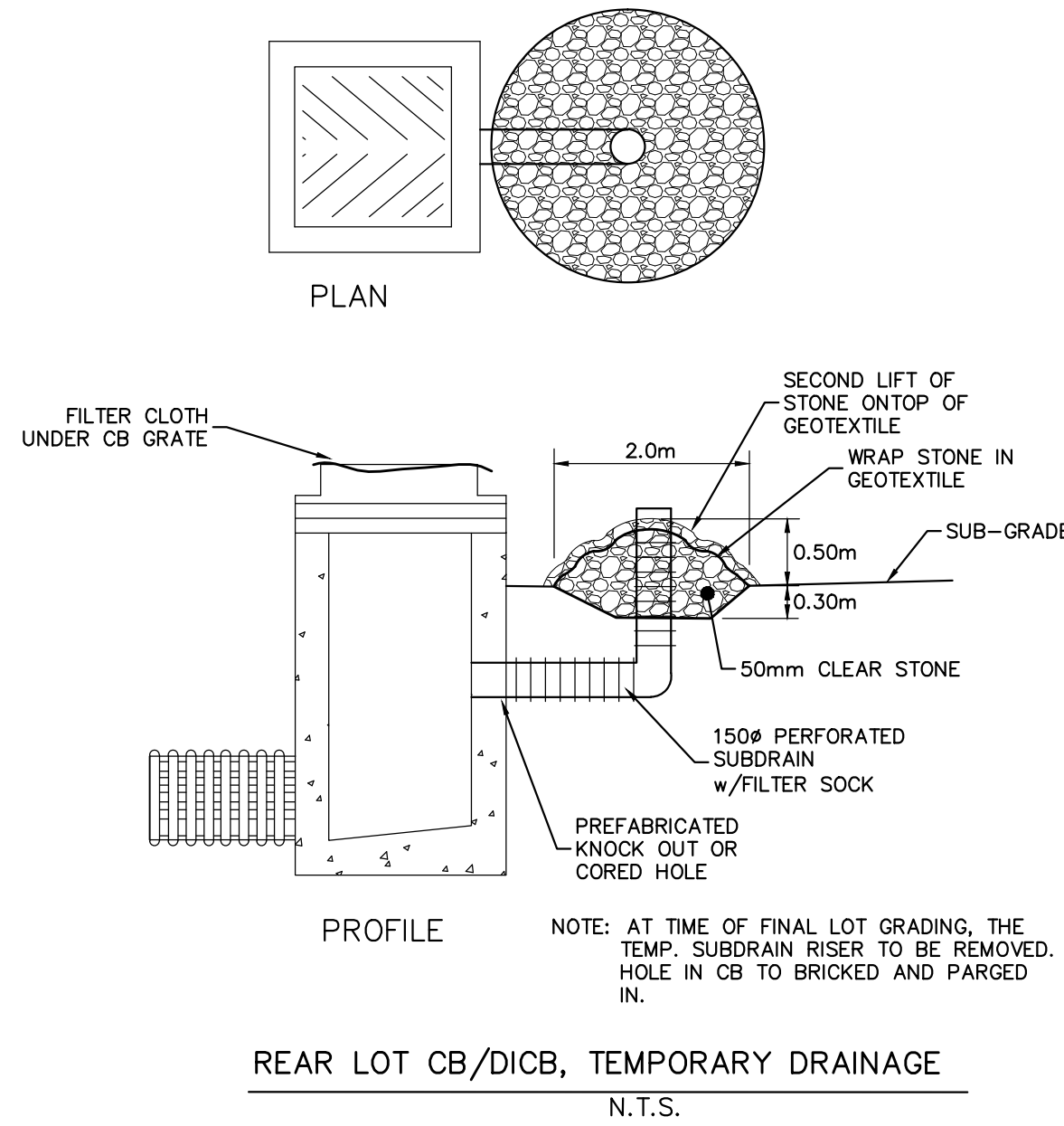
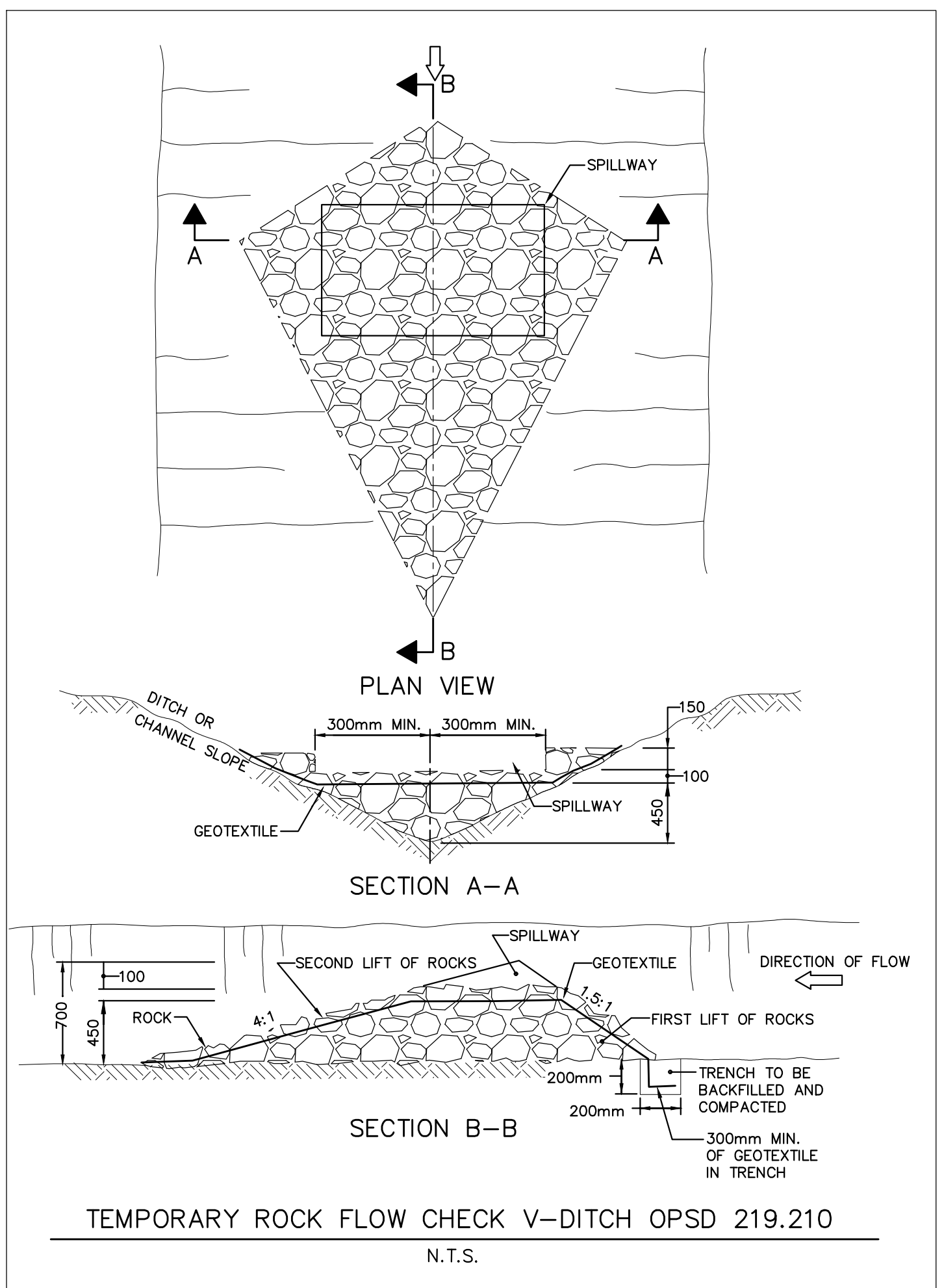
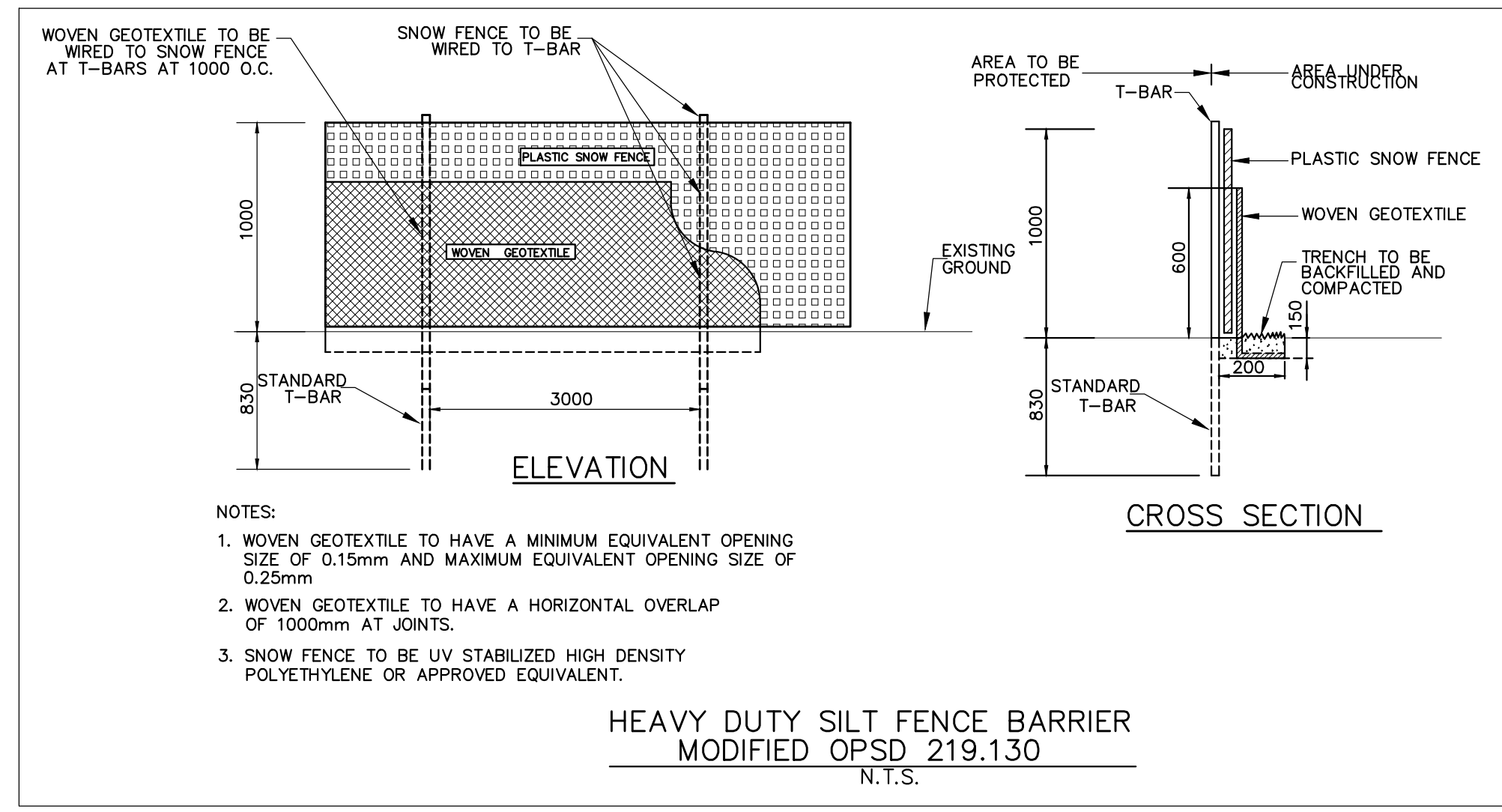
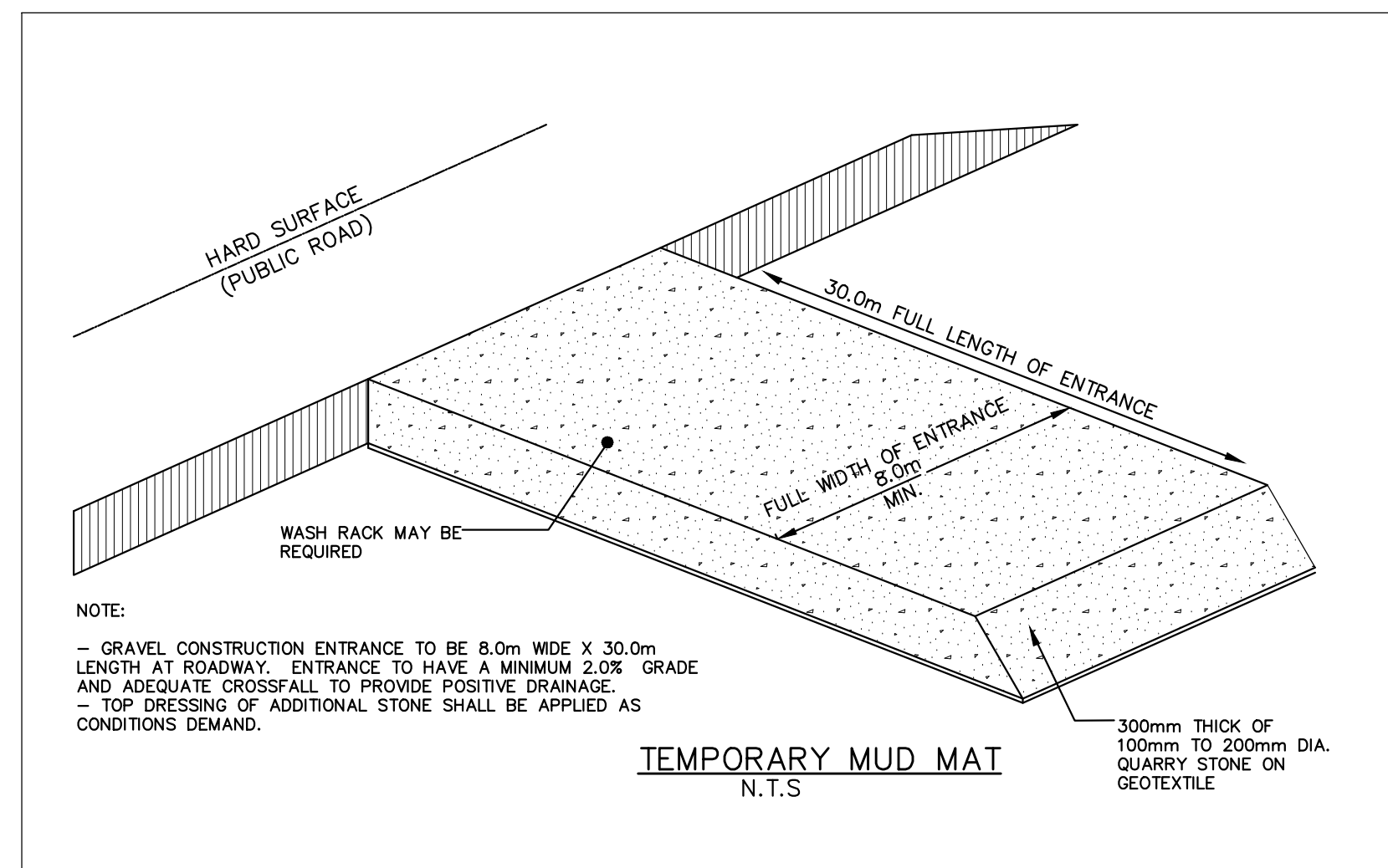
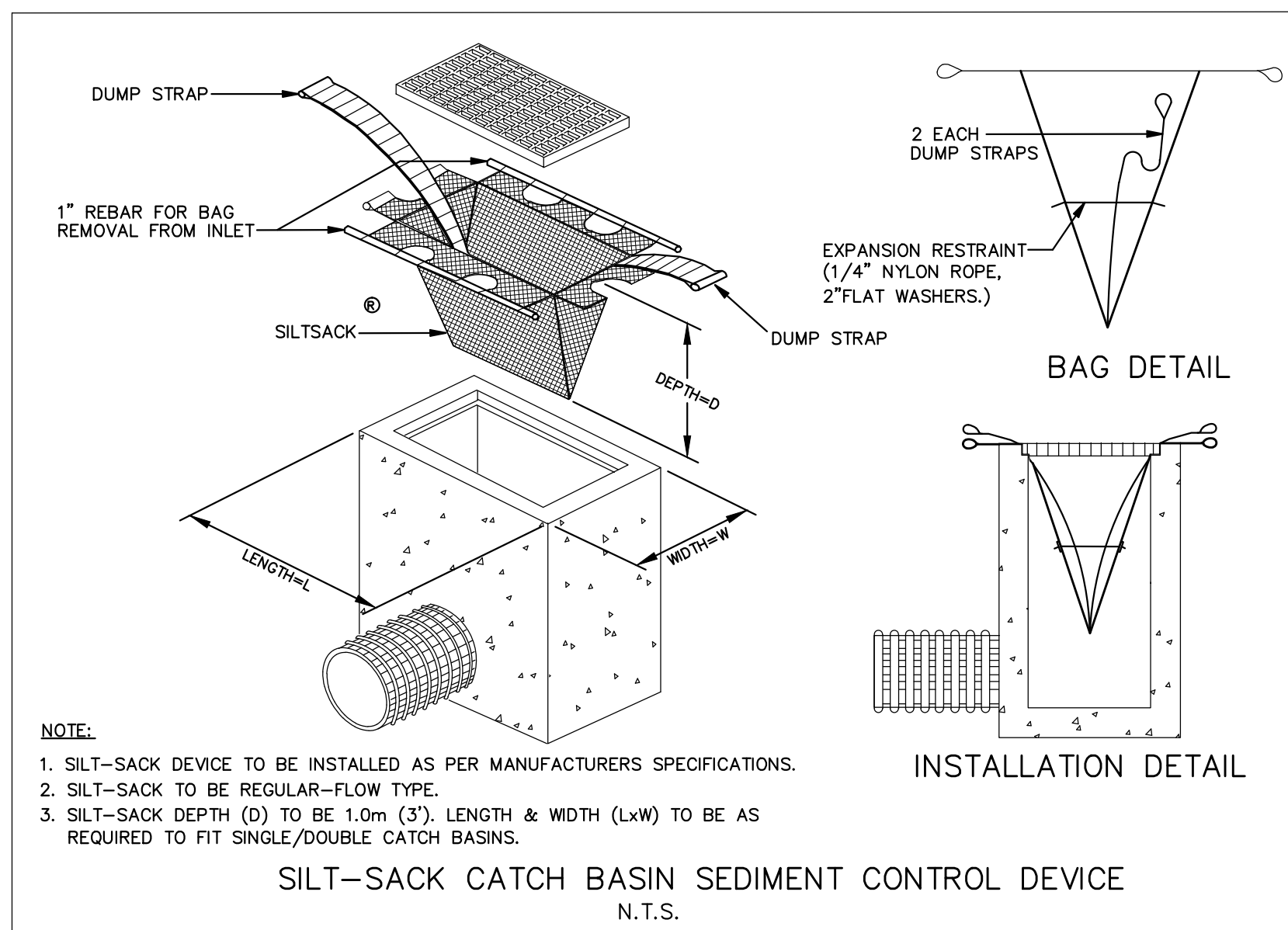
DRAWING NAME:
SEDIMENT CONTROL PLAN

SCALE: 1:750	AREA: MINTO	PROJECT No.: 22-471
DRAWN BY: G.J.	CHECKED BY: A.J.	PLAN No.: SED1

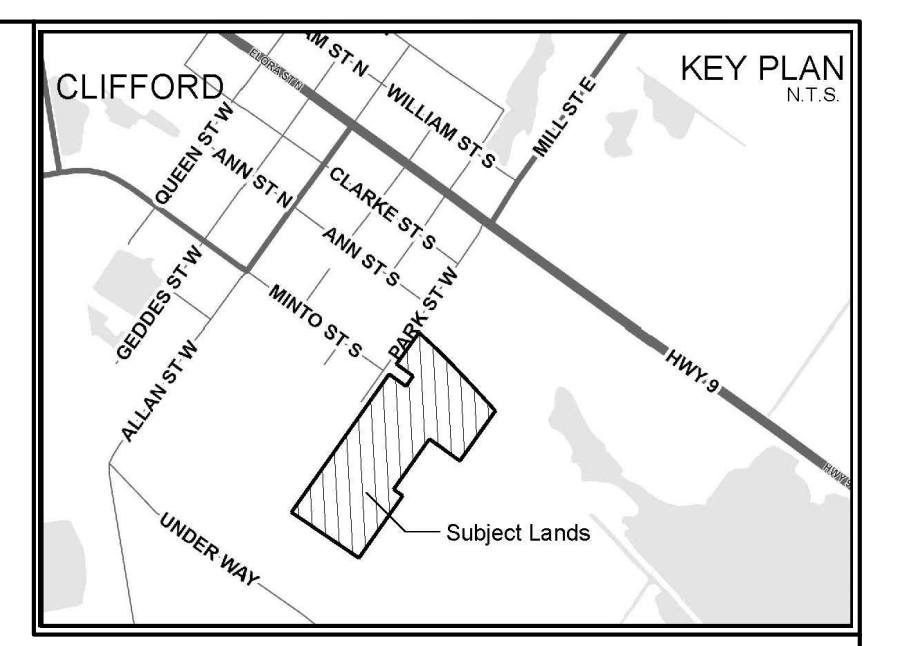
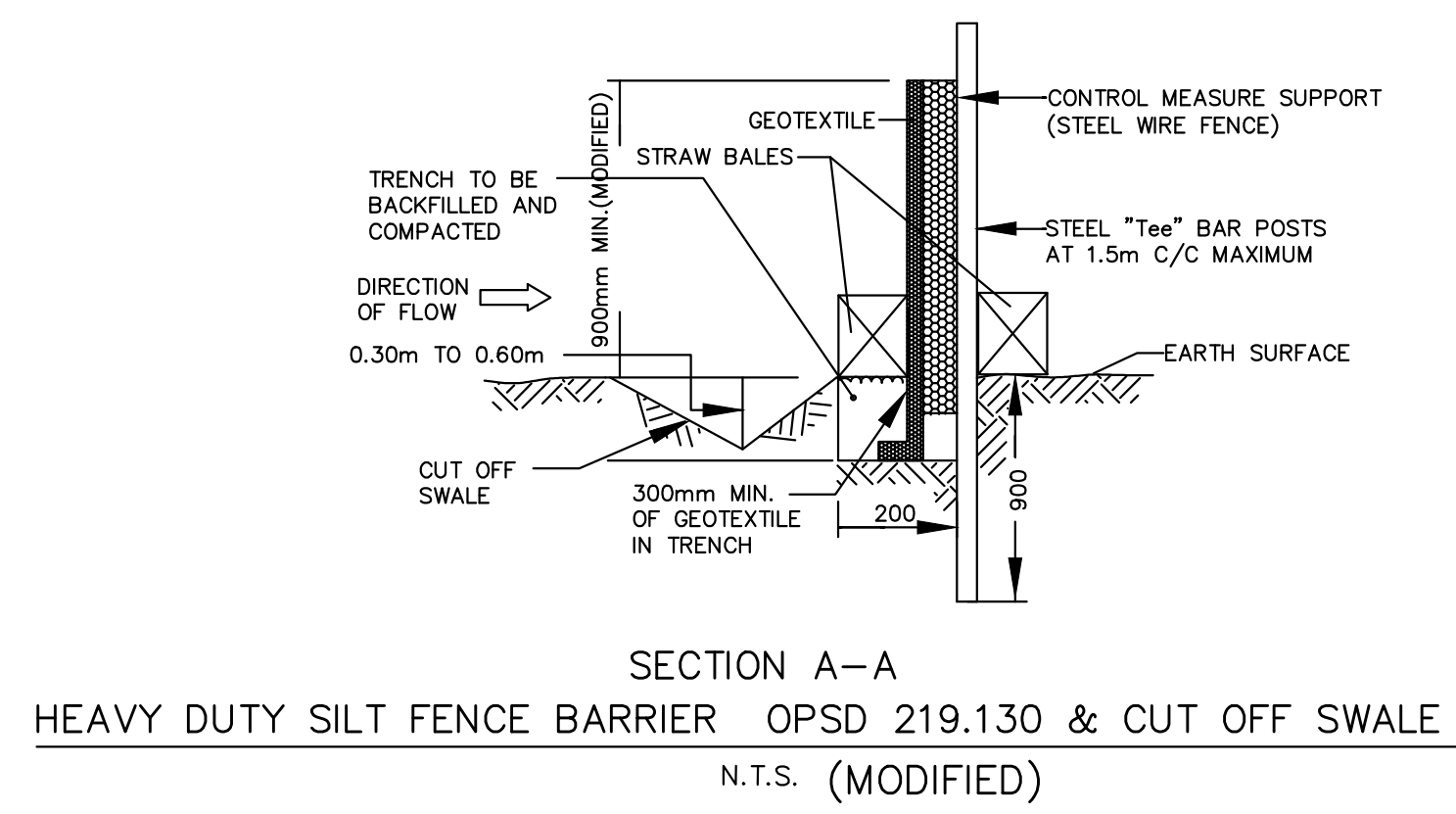
CONCEPTUAL DRIVEWAY(6m WIDE)
 LOCATION TO UNDER WAY ROAD
 DESIGN WILL BE PROVIDED
 AT DETAILED DESIGN STAGE

PIN 71003-0039 (LT)

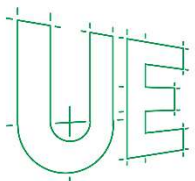
OUTLET STRUCTURE 2/
 TOP 372.20
 2000 AND 5000 TO
 1406 ORifice ELEV.370.70
 60mm WIRE MESH ELEV.371.90
 DETAILS REFER TO DWG. PSEC-1



- GENERAL NOTES:**
- QUALIFIED PERSONS AND PROTOCOLS ARE TO PROVIDE CONFIRMATION/SUPERVISION ON SITE TO ENSURE THAT ONLY TESTED/ACCEPTABLE MATERIAL IS BEING RECEIVED.
 - FILL BEING BROUGHT TO SITE IS TO BE FROM A LICENSED PIT AND/OR MEET TABLE 2 OF THE SOIL, GROUND WATER AND SEDIMENT STANDARDS FOR USE UNDER PART XV.1 OF THE ENVIRONMENTAL PROTECTION ACT.
 - ANY DISTURBED AREAS THAT REMAIN INACTIVE FOR MORE THAN 90 DAYS ARE TO BE STABILIZED WITH TOPSOIL AND VEGETATION.
- NOTES:**
- EROSION AND SEDIMENT CONTROL (ESC) PLAN IS A DYNAMIC DOCUMENT, WHICH MAY BE SUBJECT TO CHANGE OR MODIFICATIONS AS A RESULT OF SITE DEVELOPMENTS OR CHANGES ON SITE. ANY DEVIATION FROM APPROVED PLANS MUST BE DESIGNED BY A QUALIFIED PROFESSIONAL.
 - IT IS EVERYONE'S RESPONSIBILITY TO PREVENT CONSTRUCTION RELATED SEDIMENT FROM IMPACTING AQUATIC RESOURCES AND OTHER NATURAL FEATURES.
 - PLEASE REFER TO ESC GUIDELINE FOR URBAN CONSTRUCTION (DECEMBER 2008) FOR THE DESIGN AND DESIGN ALTERATION OF ESC.
 - NO PUMPING OF SEDIMENT LADEN RUNOFF FROM CONSTRUCTION AREA TO THE WETLAND/REGULATED FEATURE IS ALLOWED AT ANY TIME.
 - AN AFTER-HOURS CONTACT NUMBER IS TO BE VISIBLY POSTED ON-SITE FOR EMERGENCIES. ALL THE PLANS SHOULD HAVE NAME AND CONTACT INFO OF THE PERSON RESPONSIBLE FOR ESC MEASURES.
 - ANY SEDIMENT SPILL FROM THE SITE SHOULD BE REPORTED TO MINISTRY OF ENVIRONMENTAL (SPILL ACTION CENTER) AT 1-800-268-6060.
 - EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE EVALUATED ON A WEEKLY BASIS AND AFTER ANY STORM EVENT. ANY REPAIRS REQUIRED ARE TO BE RECTIFIED WITHIN 48HR.
 - PERIMETER FENCING ALONG NORTH WEST EAST AND SOUTH SIDE OF SITE TO BE EXTENDED TO MINIMIZE IMPACT ON EXISTING RESIDENCES.
 - IN THE EVENT OF HIGH WINDS, EARTHWORKS WILL BE SUSPENDED AND CONTRACTOR WILL BE REQUIRED TO CONFINE ALL ACTIVITIES TO DUST CONTROL UNTIL FURTHER NOTICE. THE TOWN WILL DETERMINE WHEN THE CONDITION WILL BE INVOKED.
 - PRIOR TO ANY WORK BEGINNING ON THE SITE, THE CONTRACTOR WILL CALL TOWN OF MINTO TO ARRANGE A PRE-START UP MEETING TO REVIEW THE CONSTRUCTION PLAN. SEDIMENT AND EROSION CONTROL MAY BEGIN AFTER THAT TIME AS DIRECTED BY THE TOWN. SERVICING AND OTHER WORK WILL NOT BEGIN UNTIL THE TOWN HAS INSPECTED AND APPROVED ALL SEDIMENT AND EROSION CONTROL MEASURES ON AND OFF THE SITE. MEASURES WILL INCLUDE THOSE SHOWN ON THE PLAN AS WELL AS A STREET SWEEPING PROGRAM AND ANY DIRECTION THAT MAY BE PROVIDED BY THE TOWN AT THAT TIME.
 - QUALIFIED PERSONS AND PROTOCOLS ARE TO PROVIDE CONFIRMATION /SUPERVISION ON SITE TO ENSURE THAT ONLY TESTED/ACCEPTABLE MATERIAL IS BEING RECEIVED.
 - FILL BEING BROUGHT TO SITE IS TO BE FROM A LICENSED PIT AND/OR MEET TABLE 2 OF THE SOIL, GROUND WATER AND SEDIMENT STANDARDS FOR USE UNDER PART XV.1 OF THE ENVIRONMENTAL PROTECTION ACT.
 - ANY DISTURBED AREAS THAT REMAIN INACTIVE FOR MORE THAN 90 DAYS ARE TO BE STABILIZED WITH TOPSOIL AND VEGETATION.



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 LICENSED PROFESSIONAL ENGINEER MARCH 27, 2025 A. JAWORSKI 100109267 PROVINCE OF ONTARIO	REVIEWED BY DATE DIRECTOR OF PUBLIC WORKS
 Urbtech Engineering Inc. 1200 Speers Road, Suite 8, Oakville, Ontario, L6L 2X4 Telephone: 905 896 7364	
CLIFFORD (PARK STREET) DEVELOPMENTS INC. 41 PARK STREET WEST TOWN OF MINTO	
 TOWN OF MINTO	
DRAWING NAME:	
EROSION & SEDIMENT CONTROL DETAILS	
SCALE: AS NOTED	AREA: MINTO
DRAWN BY: G.J.	CHECKED BY: A.J.
PROJECT No.: 22-471	PLAN No.: SN1



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