10242 Glendon Drive Subdivision

Servicing & Stormwater Management Report

Project Location:
10242 Glendon Drive, Komoka, ON

Prepared for:
Sifton Properties Limited
London , ON

Prepared by:
MTE Consultants Inc.
1061 Hargrieve Road
London, ON N6E1P6

May 27, 2025
MTE File No.: 55926-100

Engineers, Scientists, Surveyors.

Contents

Appendices

1.0 INTRODUCTION

MTE Consultants Inc. (MTE) was retained by Sifton Properties Limited to complete a Servicing Report for 10242 Glendon Drive. The development is a residential subdivision development approximately 17.81Ha in size.

The site is located at the north-west of the Glendon Drive and Crestview Drive in the Komoka Ontario. The property is bounded to the north by CN Railway property, to the west by existing agricultural and commercial land, and to the east by agricultural and institutional lands.

This report details the municipal service (water, sanitary, storm) for the proposed development. A Location Plan for the proposed site is included in **Appendix 1**.

Background Documents

The following background materials were reviewed and referenced for the subject development:

- Middlesex Centre Settlement Area Stormwater Master Plan (Stantec, 2020)
- Preliminary Geotechnical Investigation (EXP, 2023)
- Preliminary Stormwater Management Strategy (Dillon, 2024)
- Phase 1 Environmental Assessment (EXP, 2023)

2.0 WATER

2.1 General

Water is available from the existing 300mm watermain on Glendon Road. Given the size of the project and proposed number of units, a looped service will be required. It is noted that the concept provided shows only one road connection to Glendon Road. If this should be the case, a secondary feed through one of the private blocks fronting onto Glendon Road will be required until such time as development of one of the neighbouring properties provides a secondary connection.

2.2 Criteria

The water distribution design criteria for the subject site, as provided by Municipality of Middlesex Centre are as follows:

- Operating pressures during all domestic scenarios shall be between 275-550 kPa;
- Operating pressures shall not fall below 140 kPa during the Max Day + Fire Flow Scenario; and
- Demands and material properties shall be designed in accordance with the Municipality of Middlesex Centre Design Criteria

2.2.1 Existing Conditions and Infrastructure

- Proposed grades within the subdivision vary between 247.81 and 251.69 masl.;
- The proposed subdivision will connect to:
    - Existing 300mm watermain on Glendon Drive

- A 300mm stub will be installed on Glendon Drive at Street “A’ and a 300mm stub will be installed in front of Block 21 to be looped through Block 21 and Block 19 connecting to a 300mm watermain on Street ‘B’.
- A hydrant test was provided by the Municipality located at Tunks Lane near the Glendon Road Intersection.

2.2.2 Capacity

As detailed in this report, the existing water distribution infrastructure can supply the required domestic and fire suppression flows at pressures which meet or exceed the Municipality’s minimum requirements

2.2.3 External Works

No external water works are required for this development.

2.2.4 Effect of Development on Existing Infrastructure

No negative effects or conflicts with the existing infrastructure are anticipated as a result of the proposed development. Future development to the east and west will provide an additional loop between the proposed stubs.

2.2.5 Oversizing

No oversizing of infrastructure is required for this project.

2.2.6 Water system Area Plans

A ‘Watermain Layout Figure’, **Figure 2.1**, is attached in **Appendix 2**.

2.2.7 Water Network Analysis

Modelling of the proposed subdivision has been completed and is further described in the following sections.

2.2.8 Water Services

Proposed water services for the residential lots will be 25mm PEX as per Municipal standards.

2.3 Water Distribution Modelling

The water distribution modelling for the site was completed using WaterCAD. The site was modelled using a series of nodes connected by pipes. Demands were applied at the nodes and attributes assigned to the connecting pipes in keeping with City standards.

Future connections to the lands east and west of the development have been provided for. Demands for the future residential areas north of the site were considered conceptually. Future development to the east will provide a loop between the proposed stubs on Street ‘B’ and Glendon Drive and the future development to the west will provide a loop between the stub on Street ‘B’ and Tunks Lane.

Water supply was modelled as one reservoir situated at the connection point to the existing system. A rough sketch of the model network is included along with detailed calculations and modelling result summaries. Modelling assumptions and rational are detailed further in the following sections.

2.3.1 Water Supply

Water supply for the proposed subdivision was modelled as 1 reservoir based on a hydrant flow test which was obtained from the Municipality. The test was completed at an existing hydrant on Tunks Lane near the Glendon Road Intersection. Refer to **Appendix 2** for the hydrant flow test report.

- Based on the hydrant test and adjusting for elevation changes the following data was inputted into model (see **Appendix B**):

Scenario	Flow (L/s)	Head (m)
Shutoff	0.00	33.17
Residual	90.72	21.85
Max Operation (20 psi)	139.56	8.07

2.3.2 Demands

The proposed internal network was modelled as a series of nodes and pipes. The nodes were placed at strategic locations within the proposed site and future development. Demands were assigned to the nodes based on their proximity to the surrounding lots. Demands were assigned to nodes based on the number of units in the vicinity, a population of 3 & 2.4 persons per low density and medium density units respectively, and an average day consumption of 350 L per person. Peaking factors of 2.0 and 3.0 were used for the max day and peak hour scenarios respectively in keeping with Municipal standards. Detailed demand calculations are included in **Appendix 2**.

2.4 Results

2.4.1 Domestic and Fire Flows (Including Future Developments)

AVERAGE DAY

Under this scenario, the minimum pressure in the system was computed to be 309 kPa (>275 kPa minimum required). Future demands were included, full summary modelling results are included in **Appendix 2**.

PEAK HOUR

Under this scenario, the minimum pressure in the Phase 3 system was computed to be 275 kPa (>275 kPa minimum required). Future demands were included. Full summary modelling results are included in **Appendix 2**.

MAX DAY + FIRE

For maximum day + fire 12 scenarios were completed applying a fire flow of 76.00L/s at each of the 9 proposed hydrant locations and 80 L/s at the medium density nodes (J-21, J-22 & J-23), as shown on ‘Fire Flow Results’ table below. A fire flow analysis was completed to determine the maximum fire flow available using a maximum velocity constraint of 2.4 m/s and minimum pressure constraint of 140 kPa. The result of each scenario is outlined below. Full summary modelling results are included in **Appendix 2.**

Fire Flow Results

Node	Available Flow (L/s)	Min Flow (L/s)	Max. Velocity (m/s)	Max. Allowed Velocity (m/s)
HYD-1	80.09	76.0	1.62	2.40
HYD-2	79.71	76.0	1.61	2.40
HYD-3	79.47	76.0	1.61	2.40
HYD-4	79.71	76.0	1.99	2.40
HYD-5	79.95	76.0	1.62	2.40
HYD-6	79.48	76.0	1.61	2.40
HYD-7	78.19	76.0	1.59	2.40
HYD-8	77.73	76.0	1.59	2.40
HYD-9	76.67	76.0	1.57	2.40
J-21	81.21	80.0	1.62	2.40
J-22	82.16	80.0	1.62	2.40
J-23	85.11	80.0	1.62	2.40

2.5 Quality Turnover

Quality turnover was modelled as an age analysis with a maximum allowable age of 72 hrs. The max age in the system was determined for full buildout of the site and future adjacent sites to the east and west. At full buildout the maximum age within the system was modelled to be approximately 14.3 hrs at J-16.

3.0 SANITARY

3.1 General

The site was accounted for in the design of the sanitary sewer system on Crestview Drive. As per the sanitary drainage area plan prepared for the Kilworth Heights West Subdivision (ENG PLUS, 2018),refer to **Appendix 3**, the site was accounted for with a population of 3486, which is approximately 100 persons per hectare. Given the size of the site a total population of 1781 persons would have been allocated for the site.

Sanitary servicing is proposed to be provided by connection to the existing 300mm sanitary sewer on Crestview Drive at Glendon Drive. (Refer to **Figure 3.1** in **Appendix 3**)

3.2 Proposed Design Flow

Based on the proposed sites land use the peak flows in the design of the local sewers was 32.69L/s. (Refer to the table and calculations on below)

Land Use	Area (Ha.)	Unit per Ha.	Units	People per Unit	Total Population
Single Family	3.90	30	117	3.0	351
Street Townhomes	1.45	75	109	2.4	262
Cluster Townhomes	3.94	75	296	2.4	711
Mixed Use	2.06	75	155	2.4	372
Totals					**1696**

Using the Municipal standard consumption rate of 350 L/person/day and a peaking factor of 4.5, a peak sanitary flow of:

1696 persons x 350 L/day / 86,400 s/day x 4.5 = 30.91L/s

Infiltration is considered using the Municipal standard of 8640 L/ha/day:

17.81ha x 8640L/ha/day /86,400 s/day= 1.78L/s

As the proposed population is less than the allocated population per Kilworth Heights Subdivision sanitary sewer design, no negative downstream impacts are anticipated.

4.0 STORMWATER

4.1 Criteria

The stormwater management design criteria for the subject site, as provided by the Municipality of Middlesex Centre and the Upper Thames River Conservation Authority (UTRCA) are as follows:

- Attenuation of the post-development peak flows for the 25mm through 100-year storm events to the pre-development (existing) peak flow rates;
- Implementation of water quality controls to provide Level 1 (enhanced) treatment levels as per the MOECC SWM Practices Planning and Design Manual (2003); and

4.2 Methodology

In order to successfully complete the stormwater management design for this site, the following specific tasks were undertaken:

- Determined the allowable/pre-development flow rates;
- Estimated the percent impervious of the site and catchment area parameters for inclusion in hydrologic modelling;
- Preliminary design of proposed SWM facility; and
- Modelling and design of controls to attain the required runoff rates.

4.3 Allowable/Pre-development Flow Rate

The site currently consists primarily of an undeveloped agricultural field which drains west to an adjacent woodlot and east to existing agricultural field. Runoff from the proposed site is to be captured and conveyed to the proposed SWM facility located at the north west end of the site. The proposed pond is intended to be a constructed dry SWM facility.

Pre-development conditions of the site were modelled using SWMHYMO modelling software to capture the existing drainage conditions of the site and the resulting flow rates to the wetland. Pre-development modelling information is further discussed in the sections below.

4.3.1 Topographical Information

A topographical survey of the site was completed by Trueline Service Inc. in April of 2025. Existing elevations across the site range from 251.80 in the northeast to 244.78 in the west. The site has undulating topography, with the overall fall towards the west property line and a smaller catchment area to the east.

4.3.2 Geotechnical Information

A geotechnical investigation of the site was completed by EXP. in September of 2023. The investigation consisted of the drilling of 11 boreholes within the site to depths ranging from 5.0m to 6.6m. The borehole data collected indicated the surficial topsoil depths ranged from 0.075m to 0.53m in depth (average ~0.41m). Sub-surface soils are generally comprised of sand and gravel with trace silt.

4.3.3 Hydro-geotechnical Information

As part of the geotechnical investigation, 4 monitoring wells were installed around the perimeter of the site and stabilized water elevations were recorded. The recorded elevations range from 242.94.0-246.25 and indicate a hydraulic gradient to the southeast.

4.3.4 Pre-Development Modelling

The following table summarizes the catchments used in the modelling of the site. The predevelopment condition was separated into 2 catchment areas representing the existing field (catchments 101-102). Catchment 101 represents the west side of the field which drains to the west limit of the woodlot, catchment 102 represents the east side of the field which drains to the adjacent agricultural property to the east. **Figure 4.1** illustrates the limits of the predevelopment catchment areas internal to the site.

Table 4-1 - Pre-Development Catchment Parameters

No.	Catchment	Area (ha)	% Impervious	Pervious CN	Impervious CN	Slope (%)	Flow Length (m)
101	TRIBUTARY WEST OF PROPERTY	14.66	0	75	98	0.93	525
102	TRIBUTARY EAST OF PROPERTY	3.16	0	75	98	0.77	210

Resulting Peak flow rates to the existing woodlot and adjacent lands to the east are summarized in the table below. These flow rates will serve as the target flow rates for the post development condition. Modelling output files are provided in **Appendix 4**.

Table 4-2 - Pre-Development Flow Rates

No.	25mm	2-year	5-year	10-year	25-year	50-year	100-year
Total to EP1 (Area 101)	0.076	0.156	0.293	0.404	0.553	0.672	0.798
To EP2 (Area 102)	0.021	0.044	0.084	0.117	0.160	0.195	0.232

4.4 Proposed SWM Strategy

4.4.1 General SWM Approach

The SWM strategy for the proposed development will be to capture a majority of the runoff from the proposed site and direct it toward the proposed dry SWM pond facility. Internal grading will be designed to direct minor system runoff to an internal storm sewer system while overland flow routes will be provided in the case of major system events. The proposed SWM facility will be designed to provide quality and quantity control for the entire site.

4.4.2 Quality Control

The proposed SWM facility has been designed as a dry pond with an active storage depth of 2.2m and a free board of 0.30m. As part of the ultimate solution, the pond could be designed as a dry pond facility with an infiltration component to achieve quality control and water balance for the site. The Infiltration could be used as the primary outlet for the facility, as explained in the 'Quantity Control' section.

An OGS will be incorporated into the storm system upstream of the dry pond to pre-treat events up to the 2-year storm sized to provide an enhanced level of control for the site. Since the majority of annual rainfall occurs in storms less than or equal to a 25mm event, the majority of water borne sediment is also transported to the stormwater management facilities in these less intense events. Furthermore, since larger storm events will have greater peak flows, there is potential for re-suspension of accumulated sediment within the OGS. To achieve this objective, it proposed that the overland flows generated by major events be directed into the dry pond directly.

4.4.3 Quantity Control

Flows for all storm events will be conveyed to the stormwater management facility by a combination of storm sewer and overland flow route. Detailed design calculations and the post-development SWMHYMO design event modeling output are included in **Appendix 4**.

This facility contains an outlet control weir structure to control events up to the 250-year event and will be designed as part of the detailed engineering of the pond.

Infiltration through the bottom of the SWM facility will be used as the primary outlet for the facility, up to the 100-year storm event. It was noted in the geotechnical investigation that moderate to

significant rates of infiltration were to be expected during excavation below the groundwater table. Thus, it is assumed that the native soils have high hydraulic conductivity. For the purposes of this analysis a factored infiltration rate of 15mm/hr was assumed (minimum recommended for infiltration measures). Based on the conceptual pond area and infiltration rate, a flow rate of 26L/s can be achieved via infiltration.

The infiltration is represented as EP1 on **Figure 4.3** and EP2 represents any overflow to the adjacent woodlot in events that exceed 100-year event up to a 250-year event. The stage storage discharge relationship of the pond is summarized in **Table 4-3**.

The peak storage, and outflow for the conceptual facility during the various design storms are shown in **Table 4-4**. Design parameters for the facility are summarized in **Table 4-5** and the location of the proposed facility is provided in **Figure 4.2**.

Table 4-3 – Pond Stage Storage Discharge Summary

Stage (masl)	Peak Storage (m^3)	Discharge (infiltration) (L/s)
246.50	0.00	0.00
246.55	312.10	25.67
247.00	3154.05	25.67
247.50	7486.00	25.67
247.70	10103.9	25.67

As per the 'Preliminary Geotechnical Investigation' by EXP dated September 1, 2023, the high groundwater elevation in the general area of the proposed SWM facility is 243.08m, which is 3.42m below the bottom of pond. Based on this preliminary information, there should not be any ground water concerns.

Table 4-4 – Proposed Event Model Output

Storm Event	Peak Storage Requirement (m^3)	Peak Outflow (Infiltration) (L/s)
25 mm	2,068	26.0
2 Year	3,152	26.0
5 Year	4,720	26.0
10 Year	5,849	26.0
25 Year	7,248	26.0
50 Year	8,345	26.0
100 Year	9,440	26.0

Table 4-5 – SWM Facility Design Characteristics

General	Facility Characteristics
Stormwater Management Facility Type	Dry Pond
Required MOE Water Quality Protection	Enhanced
Total Contributing Area	17.33 ha
Imperviousness (Average)	44.6%
Bottom Elevation	246.50

4.4.4 Major and Minor Flow Routing

Based on the layout of the proposed subdivision, overland flow from the proposed road and Blocks will be required to flow through a proposed maintenance access block fronting the SWM block in order to reach the proposed SWM facility. Therefore, the grading and layout of proposed maintenance access block will need to be designed to provide a corridor which will accommodate major and minor flows from the upstream areas through the property.

Minor flows will be collected and conveyed west along the roads to the proposed SWM pond via storm sewers. Major flows from the road will be conveyed overland within the proposed ROW.

5.0 CONCLUSIONS

Based on the foregoing analysis, it is concluded that:

i. the proposed development can be adequately serviced by the existing sanitary sewer on Glendon Drive

ii. the proposed development will be serviced by the existing 300mm watermain feed from Glendon Drive. Additional looping will be provided for the area once the adjacent lands to the east and west are developed;

iii. the proposed stormwater management design provides adequate attenuation of the 2 through 100-year storm events and provides adequate water quality control for the proposed site.

It is recommended that:

iv. the site grading be designed to convey major system runoff to the SWM facility and minimizes cut/fill requirements for the site;

v. the proposed servicing measures be fully designed and detailed as part of the detailed design process to the satisfaction of the Municipality of Middlesex Centre.

All of which is respectfully submitted,

MTE Consultants Inc.

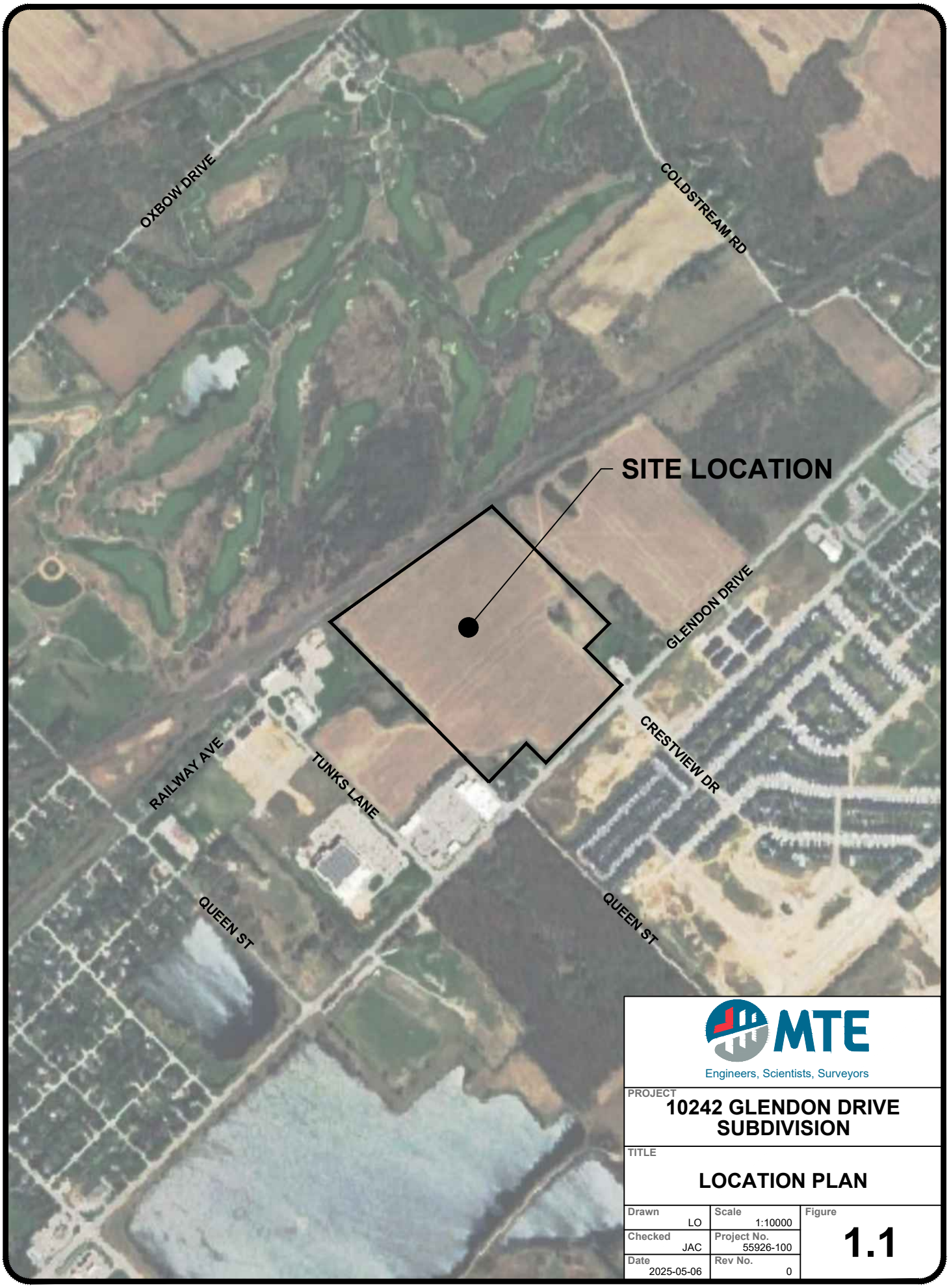
Joshua Monster, P.Eng.
Design Engineer
519-743-6500 ext. 555
jmonster@mte85.com

JJM:xxx

Document1

Appendix 1

Location Plan



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Plot Date: May 22, 2025 - 9:34 AM

MTE
Engineers, Scientists, Surveyors

PROJECT
10242 GLENDON DRIVE SUBDIVISION

TITLE
LOCATION PLAN

Drawn: LO	Scale: 1:10000	Figure: **1.1**
Checked: JAC	Project No.: 55926-100	
Date: 2025-05-06	Rev No.: 0	

Appendix 3

Water Servicing Information

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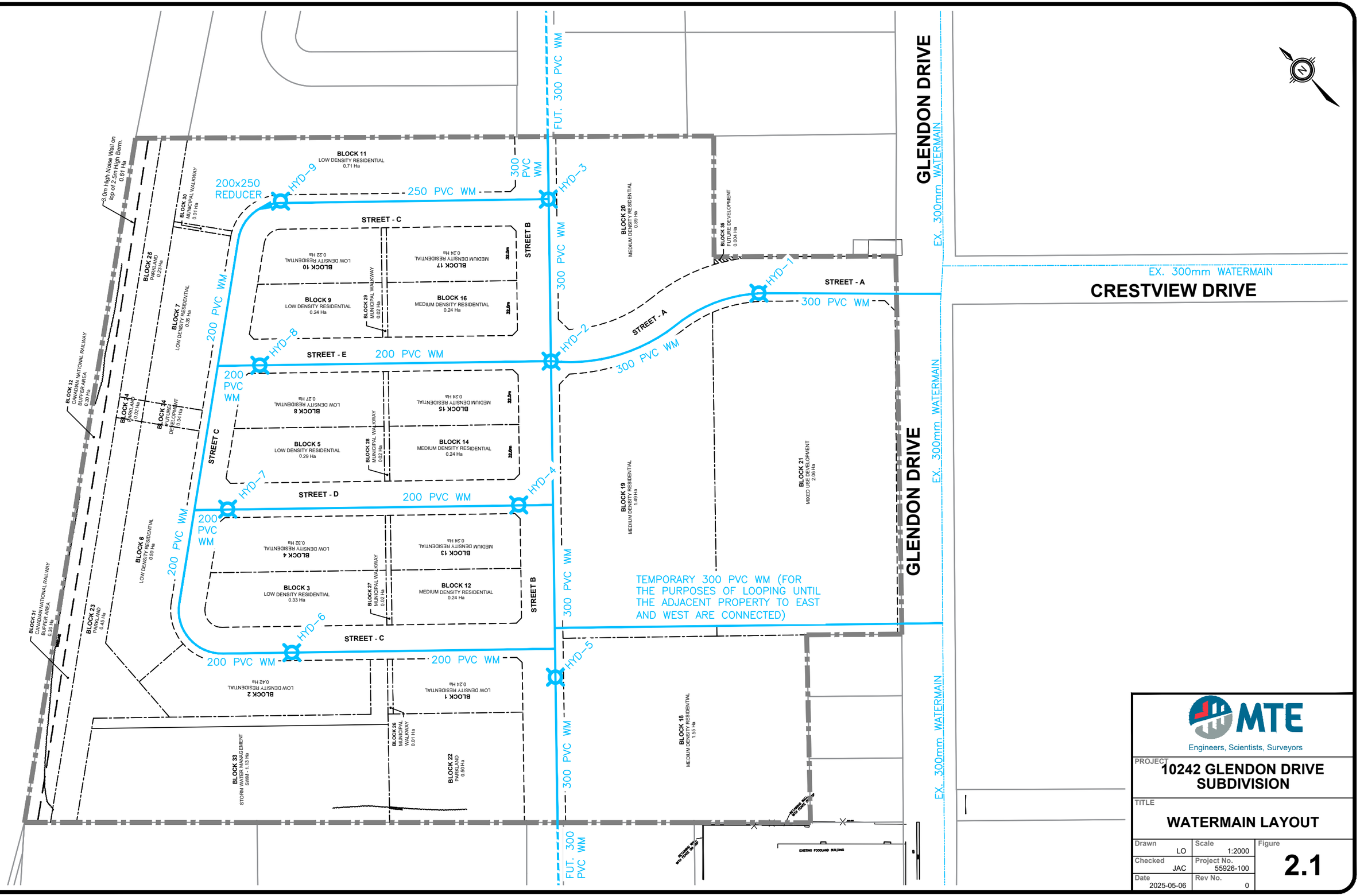
Plot Date: May 22, 2025 – 3:08 PM



MTE
Engineers, Scientists, Surveyors

PROJECT
10242 GLENDON DRIVE SUBDIVISION

TITLE
WATERMAIN LAYOUT

Drawn: LO	Scale: 1:2000	Figure: **2.1**
Checked: JAC	Project No.: 55926-100	
Date: 2025-05-06	Rev No.: 0	

MTE Consultants
123 St. George St., London, Ontario N6A 3A1

DATE: May 27, 2025
JOB NO.: 55926-100

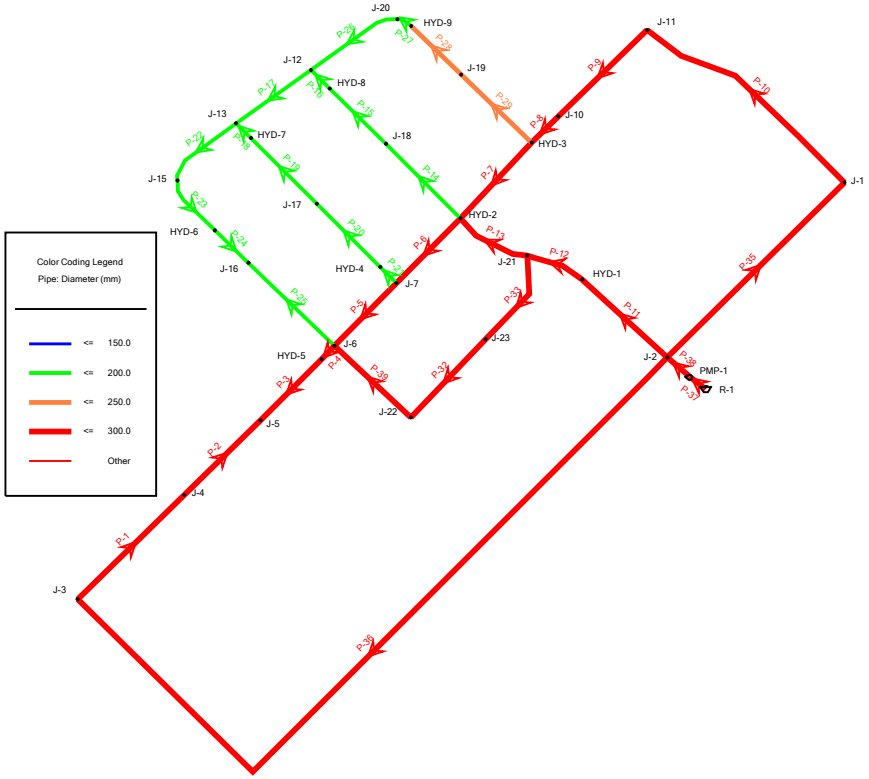
Project: **10242 Glendon Drive**
Location: **Komoka ON**

Water Demand Calculation

				Residential (Low Density)						Residential (Medium Density)						Demand Summary		
Building	**Approximate Surface Elevation (mASL)**	**Approximate Elevation (mASL)**	**Node**	**Area (ha.)**	**Units/ha**	**PPL/Units**	**Pop**	**L/day/cap**	**Avg. Day Demand (l/s)**	**Area (ha.)**	**Units/ha**	**PPL/Units**	**Pop**	**L/day/cap**	**Avg. Day Demand (l/s)**	**Avg. Day (l/s)**	**Max Day (l/s)**	**Max Hour (l/s)**
Adjacent Lands to the West	242.74	241.04	J-4	10.39	33.3	3.0	1038	350	4.21	0.00	75	2.4	0	350	0.00	4.21	8.42	12.63
Adjacent Lands to the East	247.90	246.2	J-11	-	-	-	1482	350	6.01	-	-	-	0	350	0.00	6.01	12.02	18.03
Street C	251.44	249.74	J-12	0.76	30	3.0	69	350	0.28	0.00	75	2.4	0	350	0.00	0.28	0.56	0.84
Street C	251.01	249.31	J-13	0.90	30	3.0	81	350	0.33	0.00	75	2.4	0	350	0.00	0.33	0.66	0.99
Street C	250.43	248.73	J-15	0.96	30	3.0	87	350	0.36	0.00	75	2.4	0	350	0.00	0.36	0.72	1.08
Street C	248.68	246.98	J-16	0.24	30	3.0	22	350	0.09	0.24	75	2.4	44	350	0.18	0.27	0.54	0.81
Street D	250.49	248.79	J-17	0.00	30	3.0	0	350	0.00	0.48	75	2.4	87	350	0.36	0.36	0.72	1.08
Street E	250.36	248.66	J-18	0.00	30	3.0	0	350	0.00	0.48	75	2.4	87	350	0.36	0.36	0.72	1.08
Street C	250.9	249.2	J-19	0.25	30	3.0	23	350	0.10	0.24	75	2.4	44	350	0.18	0.28	0.56	0.84
Street C	251.76	250.06	J-20	0.79	30	3.0	72	350	0.30	0.00	75	2.4	0	350	0.00	0.30	0.60	0.90
Street A	249.94	248.24	J-21	0.00	30	3.0	0	350	0.00	0.89	75	2.4	161	350	0.66	0.66	1.32	1.98
Medium Density Block 18	249.57	247.87	J-22	0.00	30	3.0	0	350	0.00	1.55	75	2.4	279	350	1.14	1.14	2.28	3.42
Medium Density Block 19 & 21	249.98	248.28	J-23	0.00	30	3.0	0	350	0.00	3.58	75	2.4	645	350	2.62	2.62	5.24	7.86
Total				**14.29**			**2874**		**11.68**	**7.46**			**1347**		**5.50**	**17.18**	**34.36**	**51.54**

Design Specifications and Requirments Manual
Max Day Factor = 2.00
Peak Hour Factor = 3.00

Scenario: Maximum Day + Fire Flow



Hydrant Test (Model Pump Data)

Elev. At HYD	241.84	Elev. At Main	247.83

Scenario	Flow (L/s)	Head (m)
Shutoff	0	33.17
Design	90.72	21.85
Max. Operation	139.56	8.07

FLOWMETRIX
INDU-TECH
PROCESS

Fire Flow Testing Report

Residual Hydrant # **Ko-38**

NFPA Colour Code **BLUE**

DATE	May 16, 2022
TIME	3:15 PM
ADDRESS	Tunks Lane @ Glendo
SETTLEMENT AREA	Komoka
MAKE	Canada Valve
MODEL	Century

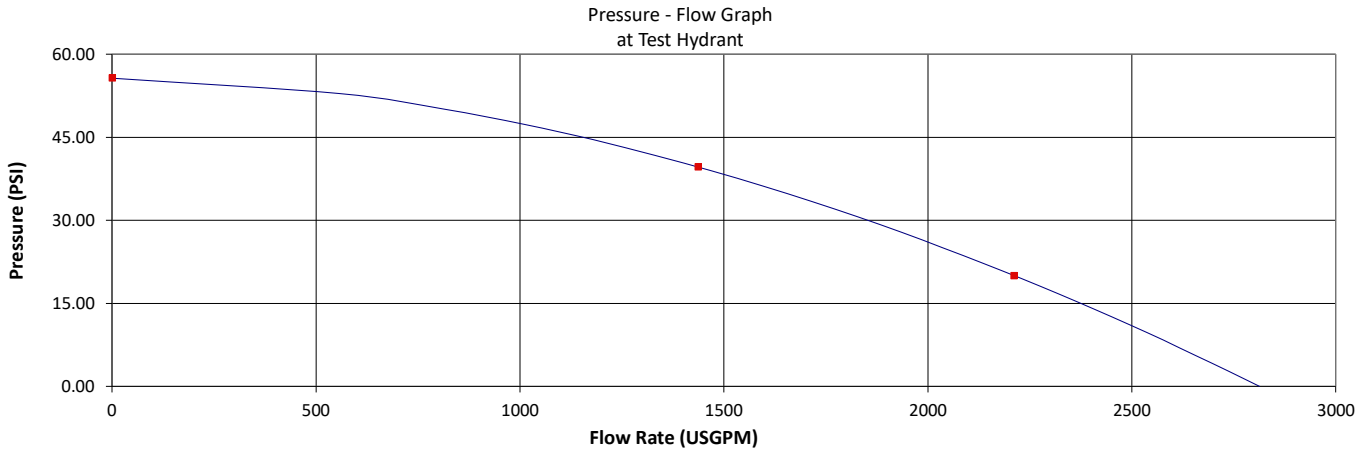
RESIDUAL HYDRANT INFO.

HYDRANT #	Ko-38	
N.F.P.A. COLOUR CODE	BLUE	
STATIC PRESSURE	55.7	psi
RESIDUAL PRESSURE	39.6	psi
PRESSURE DROP	16.1	psi
% PRESSURE DROP	28.9	% psi
Flow on Water Main At Test Hydrant @ 20 psi	2212	USGPM

FLOW HYDRANT(S) INFO.

HYDRANT ASSET ID	HYD. # PORTS	OUTLET DIAMETER (INCHES)	NOZZLE COEFFICIENT	DIFFUSER TYPE	DIFFUSER COEFFICIENT	PITOT READING (psi)	PITOT FLOW (USGPM)	TOTAL VOLUME OF WATER (Gal)
Ko-109	2	2.5	Round	LPD250	0.90	**22.7**	1438	1140
		2.5	Round	LPD250	0.90	**22.7**	0	1140
					Total Flow		1438	2280

FIRE FLOW CHART



COMMENTS

OPERATOR	FMX	Jordan Whitlock
OPERATOR	FMX	Ryan Ritchie
OPERATOR		

"If we don't measure it, how do you manage it?"

10242 Glendon Drive Subdivision

Average Day Demand Scenario

Junction Table - Time: 0.00 hours

Label	Elevation (m)	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)	Age (Maximum) (hours)	Block ID
HYD-1	247.87	0.00	281.47	329	(N/A)	
HYD-2	247.69	0.00	281.47	331	(N/A)	
HYD-3	248.02	0.00	281.47	327	(N/A)	
HYD-4	247.65	0.00	281.47	331	(N/A)	
HYD-5	246.84	0.00	281.46	339	(N/A)	
HYD-6	247.72	0.00	281.47	330	(N/A)	
HYD-7	249.22	0.00	281.47	316	(N/A)	
HYD-8	249.47	0.00	281.47	313	(N/A)	
HYD-9	249.90	0.00	281.47	309	(N/A)	
J-1	249.20	0.00	281.47	316	(N/A)	
J-2	247.18	0.00	281.47	336	(N/A)	
J-3	240.36	0.00	281.47	402	(N/A)	
J-4	241.04	4.21	281.47	396	(N/A)	
J-5	246.25	6.01	281.46	345	(N/A)	
J-6	246.96	0.00	281.47	338	(N/A)	
J-7	247.36	0.00	281.47	334	(N/A)	
J-10	248.20	0.00	281.47	326	(N/A)	
J-11	246.20	0.00	281.47	345	(N/A)	
J-12	249.74	0.28	281.47	311	(N/A)	
J-13	249.31	0.33	281.47	315	(N/A)	
J-15	248.73	0.36	281.47	320	(N/A)	
J-16	246.98	0.27	281.47	337	(N/A)	
J-17	248.79	0.36	281.47	320	(N/A)	
J-18	248.66	0.36	281.47	321	(N/A)	
J-19	249.20	0.28	281.47	316	(N/A)	
J-20	250.06	0.30	281.47	307	(N/A)	
J-21	248.24	0.66	281.47	325	(N/A)	
J-22	247.87	1.14	281.47	329	(N/A)	
J-23	248.28	2.62	281.47	325	(N/A)	

10242 Glendon Drive Subdivision

Average Day Demand Scenario

Pipe Table - Time: 0.00 hours

Label	Length (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Velocity (m/s)
P-1	139	J-3	J-4	300.0	120.0	0.11
P-2	99	J-4	J-5	300.0	120.0	0.05
P-3	80	J-5	HYD-5	300.0	110.0	0.04
P-4	17	HYD-5	J-6	300.0	110.0	0.04
P-5	82	J-6	J-7	300.0	120.0	0.04
P-6	85	J-7	HYD-2	300.0	120.0	0.04
P-7	97	HYD-2	HYD-3	300.0	120.0	0.03
P-8	35	HYD-3	J-10	300.0	120.0	0.05
P-9	115	J-10	J-11	300.0	120.0	0.05
P-10	235	J-11	J-1	300.0	120.0	0.05
P-11	107	J-2	HYD-1	300.0	120.0	0.09
P-12	56	HYD-1	J-21	300.0	120.0	0.09
P-13	73	J-21	HYD-2	300.0	120.0	0.02
P-14	98	HYD-2	J-18	200.0	110.0	0.02
P-15	73	J-18	HYD-8	200.0	110.0	0.01
P-16	25	HYD-8	J-12	200.0	110.0	0.01
P-17	86	J-12	J-13	200.0	110.0	0.02
P-18	19	J-13	HYD-7	200.0	110.0	0.00
P-19	86	HYD-7	J-17	200.0	110.0	0.00
P-20	83	J-17	HYD-4	200.0	110.0	0.02
P-21	21	HYD-4	J-7	200.0	110.0	0.02
P-22	79	J-13	J-15	200.0	110.0	0.02
P-23	60	J-15	HYD-6	200.0	110.0	0.01
P-24	43	HYD-6	J-16	200.0	110.0	0.01
P-25	111	J-16	J-6	200.0	110.0	0.00
P-26	95	J-12	J-20	200.0	110.0	0.02
P-27	15	J-20	HYD-9	200.0	110.0	0.03
P-28	65	HYD-9	J-19	250.0	110.0	0.02
P-29	91	J-19	HYD-3	250.0	110.0	0.03
P-32	101	J-22	J-23	300.0	120.0	0.02
P-33	94	J-23	J-21	300.0	120.0	0.06
P-35	1	J-2	J-1	300.0	120.0	0.05
P-36	1	J-2	J-3	300.0	120.0	0.11
P-37	1	R-1	PMP-1	300.0	120.0	0.24
P-38	1	PMP-1	J-2	300.0	120.0	0.24

10242 Glendon Drive Subdivision

Max Day Demand + Fire Flow Scenario

Junction Table - Time: 0.00 hours

Label	Elevation (m)	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)	Age (Maximum) (hours)	Block ID
HYD-1	247.87	0.00	280.10	315	(N/A)	
HYD-2	247.69	0.00	280.09	317	(N/A)	
HYD-3	248.02	0.00	280.09	314	(N/A)	
HYD-4	247.65	0.00	280.08	317	(N/A)	
HYD-5	246.84	0.00	280.08	325	(N/A)	
HYD-6	247.72	0.00	280.08	317	(N/A)	
HYD-7	249.22	0.00	280.08	302	(N/A)	
HYD-8	249.47	0.00	280.09	300	(N/A)	
HYD-9	249.90	0.00	280.09	295	(N/A)	
J-1	249.20	0.00	280.11	303	(N/A)	
J-2	247.18	0.00	280.11	322	(N/A)	
J-3	240.36	0.00	280.11	389	(N/A)	
J-4	241.04	8.42	280.08	382	(N/A)	
J-5	246.25	12.02	280.08	331	(N/A)	
J-6	246.96	0.00	280.08	324	(N/A)	
J-7	247.36	0.00	280.08	320	(N/A)	
J-10	248.20	0.00	280.09	312	(N/A)	
J-11	246.20	0.00	280.10	332	(N/A)	
J-12	249.74	0.56	280.09	297	(N/A)	
J-13	249.31	0.66	280.08	301	(N/A)	
J-15	248.73	0.72	280.08	307	(N/A)	
J-16	246.98	0.54	280.08	324	(N/A)	
J-17	248.79	0.72	280.08	306	(N/A)	
J-18	248.66	0.72	280.09	308	(N/A)	
J-19	249.20	0.56	280.09	302	(N/A)	
J-20	250.06	0.60	280.09	294	(N/A)	
J-21	248.24	1.32	280.09	312	(N/A)	
J-22	247.87	2.28	280.08	315	(N/A)	
J-23	248.28	5.24	280.08	311	(N/A)	

10242 Glendon Drive Subdivision

Max Day Demand + Fire Flow Scenario

Pipe Table - Time: 0.00 hours

Label	Length (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Velocity (m/s)
P-1	139	J-3	J-4	300.0	120.0	0.21
P-2	99	J-4	J-5	300.0	120.0	0.09
P-3	80	J-5	HYD-5	300.0	110.0	0.08
P-4	17	HYD-5	J-6	300.0	110.0	0.08
P-5	82	J-6	J-7	300.0	120.0	0.08
P-6	85	J-7	HYD-2	300.0	120.0	0.09
P-7	97	HYD-2	HYD-3	300.0	120.0	0.07
P-8	35	HYD-3	J-10	300.0	120.0	0.10
P-9	115	J-10	J-11	300.0	120.0	0.10
P-10	235	J-11	J-1	300.0	120.0	0.10
P-11	107	J-2	HYD-1	300.0	120.0	0.17
P-12	56	HYD-1	J-21	300.0	120.0	0.17
P-13	73	J-21	HYD-2	300.0	120.0	0.04
P-14	98	HYD-2	J-18	200.0	110.0	0.05
P-15	73	J-18	HYD-8	200.0	110.0	0.02
P-16	25	HYD-8	J-12	200.0	110.0	0.02
P-17	86	J-12	J-13	200.0	110.0	0.05
P-18	19	J-13	HYD-7	200.0	110.0	0.01
P-19	86	HYD-7	J-17	200.0	110.0	0.01
P-20	83	J-17	HYD-4	200.0	110.0	0.03
P-21	21	HYD-4	J-7	200.0	110.0	0.03
P-22	79	J-13	J-15	200.0	110.0	0.03
P-23	60	J-15	HYD-6	200.0	110.0	0.01
P-24	43	HYD-6	J-16	200.0	110.0	0.01
P-25	111	J-16	J-6	200.0	110.0	0.01
P-26	95	J-12	J-20	200.0	110.0	0.04
P-27	15	J-20	HYD-9	200.0	110.0	0.06
P-28	65	HYD-9	J-19	250.0	110.0	0.04
P-29	91	J-19	HYD-3	250.0	110.0	0.05
P-32	101	J-22	J-23	300.0	120.0	0.04
P-33	94	J-23	J-21	300.0	120.0	0.11
P-35	1	J-2	J-1	300.0	120.0	0.10
P-36	1	J-2	J-3	300.0	120.0	0.21
P-37	1	R-1	PMP-1	300.0	120.0	0.49
P-38	1	PMP-1	J-2	300.0	120.0	0.49

10242 Glendon Drive Subdivision

Max Day Demand + Fire Flow Scenario

Fire Flow Results Table - Time: 0.00 hours

Label	Fire Flow (Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Calculated Residual) (kPa)	Junction w/ Minimum Pressure (System)	Pressure (Calculated Zone Lower Limit) (kPa)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (m/s)
HYD-1	76.00	80.09	161	J-20	140	P-38	1.62
HYD-2	76.00	79.71	163	J-20	140	P-38	1.61
HYD-3	73.00	79.47	160	J-20	140	P-38	1.61
HYD-4	76.00	79.71	157	J-20	140	P-21	1.99
HYD-5	76.00	79.95	170	J-20	140	P-38	1.62
HYD-6	76.00	79.48	144	J-20	140	P-38	1.61
HYD-7	76.00	78.19	140	J-13	142	P-38	1.59
HYD-8	76.00	77.73	140	J-12	141	P-38	1.59
HYD-9	76.00	76.67	141	J-20	140	P-38	1.57
J-21	80.00	81.21	157	J-20	140	P-38	1.62
J-22	80.00	82.16	159	J-20	140	P-38	1.62
J-23	80.00	85.11	155	J-20	140	P-38	1.62

10242 Glendon Drive Subdivision

Peak Hour Demand Scenario

Junction Table - Time: 0.00 hours

Label	Elevation (m)	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)	Age (Maximum) (hours)	Block ID
HYD-1	247.87	0.00	277.98	295	(N/A)	
HYD-2	247.69	0.00	277.96	296	(N/A)	
HYD-3	248.02	0.00	277.96	293	(N/A)	
HYD-4	247.65	0.00	277.95	297	(N/A)	
HYD-5	246.84	0.00	277.94	304	(N/A)	
HYD-6	247.72	0.00	277.95	296	(N/A)	
HYD-7	249.22	0.00	277.95	281	(N/A)	
HYD-8	249.47	0.00	277.95	279	(N/A)	
HYD-9	249.90	0.00	277.96	275	(N/A)	
J-1	249.20	0.00	278.01	282	(N/A)	
J-2	247.18	0.00	278.01	302	(N/A)	
J-3	240.36	0.00	278.01	369	(N/A)	
J-4	241.04	12.63	277.95	361	(N/A)	
J-5	246.25	18.03	277.94	310	(N/A)	
J-6	246.96	0.00	277.95	303	(N/A)	
J-7	247.36	0.00	277.95	299	(N/A)	
J-10	248.20	0.00	277.97	291	(N/A)	
J-11	246.20	0.00	277.98	311	(N/A)	
J-12	249.74	0.84	277.95	276	(N/A)	
J-13	249.31	0.99	277.95	280	(N/A)	
J-15	248.73	1.08	277.95	286	(N/A)	
J-16	246.98	0.81	277.95	303	(N/A)	
J-17	248.79	1.08	277.95	285	(N/A)	
J-18	248.66	1.08	277.95	287	(N/A)	
J-19	249.20	0.84	277.96	282	(N/A)	
J-20	250.06	0.90	277.96	275	(N/A)	
J-21	248.24	1.98	277.96	291	(N/A)	
J-22	247.87	3.42	277.95	294	(N/A)	
J-23	248.28	7.86	277.95	290	(N/A)	

10242 Glendon Drive Subdivision

Peak Hour Demand Scenario

Pipe Table - Time: 0.00 hours

Label	Length (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Velocity (m/s)
P-1	139	J-3	J-4	300.0	120.0	0.32
P-2	99	J-4	J-5	300.0	120.0	0.14
P-3	80	J-5	HYD-5	300.0	110.0	0.12
P-4	17	HYD-5	J-6	300.0	110.0	0.12
P-5	82	J-6	J-7	300.0	120.0	0.11
P-6	85	J-7	HYD-2	300.0	120.0	0.13
P-7	97	HYD-2	HYD-3	300.0	120.0	0.10
P-8	35	HYD-3	J-10	300.0	120.0	0.15
P-9	115	J-10	J-11	300.0	120.0	0.15
P-10	235	J-11	J-1	300.0	120.0	0.15
P-11	107	J-2	HYD-1	300.0	120.0	0.26
P-12	56	HYD-1	J-21	300.0	120.0	0.26
P-13	73	J-21	HYD-2	300.0	120.0	0.06
P-14	98	HYD-2	J-18	200.0	110.0	0.07
P-15	73	J-18	HYD-8	200.0	110.0	0.03
P-16	25	HYD-8	J-12	200.0	110.0	0.03
P-17	86	J-12	J-13	200.0	110.0	0.07
P-18	19	J-13	HYD-7	200.0	110.0	0.01
P-19	86	HYD-7	J-17	200.0	110.0	0.01
P-20	83	J-17	HYD-4	200.0	110.0	0.05
P-21	21	HYD-4	J-7	200.0	110.0	0.05
P-22	79	J-13	J-15	200.0	110.0	0.05
P-23	60	J-15	HYD-6	200.0	110.0	0.02
P-24	43	HYD-6	J-16	200.0	110.0	0.02
P-25	111	J-16	J-6	200.0	110.0	0.01
P-26	95	J-12	J-20	200.0	110.0	0.06
P-27	15	J-20	HYD-9	200.0	110.0	0.09
P-28	65	HYD-9	J-19	250.0	110.0	0.06
P-29	91	J-19	HYD-3	250.0	110.0	0.08
P-32	101	J-22	J-23	300.0	120.0	0.06
P-33	94	J-23	J-21	300.0	120.0	0.17
P-35	1	J-2	J-1	300.0	120.0	0.15
P-36	1	J-2	J-3	300.0	120.0	0.32
P-37	1	R-1	PMP-1	300.0	120.0	0.73
P-38	1	PMP-1	J-2	300.0	120.0	0.73

10242 Glendon Drive Subdivision

Water Age Analysis

Junction Table - Time: 0.00 hours

Label	Elevation (m)	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)	Age (Maximum) (hours)	Block ID
HYD-1	247.87	0.00	281.47	329	0.548	
HYD-2	247.69	0.00	281.47	331	2.618	
HYD-3	248.02	0.00	281.47	327	2.374	
HYD-4	247.65	0.00	281.47	331	3.518	
HYD-5	246.84	0.00	281.46	339	4.486	
HYD-6	247.72	0.00	281.47	330	11.866	
HYD-7	249.22	0.00	281.47	316	10.602	
HYD-8	249.47	0.00	281.47	313	5.635	
HYD-9	249.90	0.00	281.47	309	4.290	
J-1	249.20	0.00	281.47	316	0.300	
J-2	247.18	0.00	281.47	336	0.200	
J-3	240.36	0.00	281.47	402	0.300	
J-4	241.04	4.21	281.47	396	0.664	
J-5	246.25	6.01	281.46	345	2.993	
J-6	246.96	0.00	281.47	338	4.363	
J-7	247.36	0.00	281.47	334	3.144	
J-10	248.20	0.00	281.47	326	2.187	
J-11	246.20	0.00	281.47	345	1.567	
J-12	249.74	0.28	281.47	311	5.872	
J-13	249.31	0.33	281.47	315	7.657	
J-15	248.73	0.36	281.47	320	8.940	
J-16	246.98	0.27	281.47	337	14.344	
J-17	248.79	0.36	281.47	320	4.990	
J-18	248.66	0.36	281.47	321	3.819	
J-19	249.20	0.28	281.47	316	3.373	
J-20	250.06	0.30	281.47	307	4.425	
J-21	248.24	0.66	281.47	325	0.731	
J-22	247.87	1.14	281.47	329	2.709	
J-23	248.28	2.62	281.47	325	1.202	

10242 Glendon Drive Subdivision

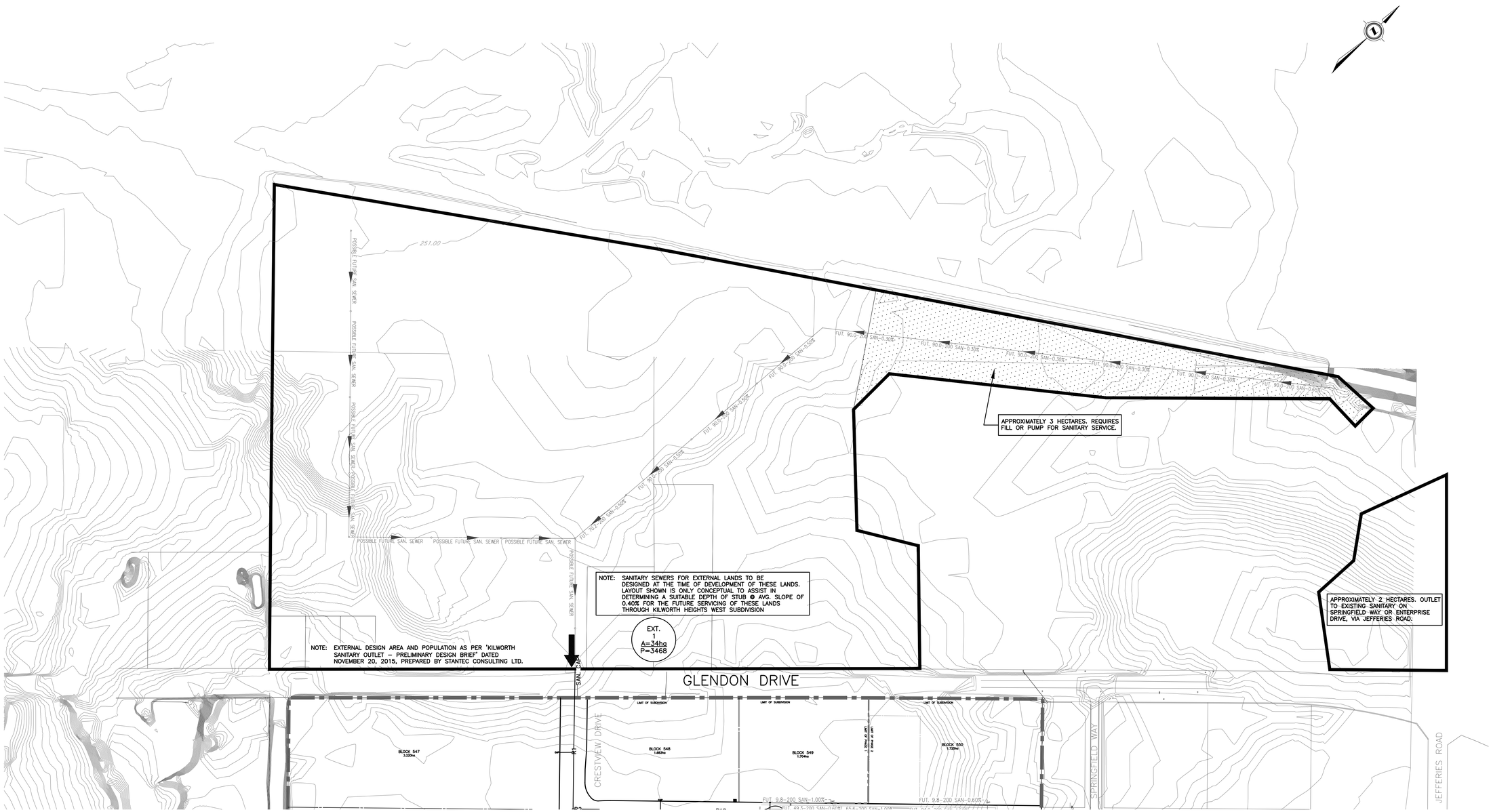
Water Age Analysis

Pipe Table - Time: 0.00 hours

Label	Length (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Velocity (m/s)
P-1	139	J-3	J-4	300.0	120.0	0.11
P-2	99	J-4	J-5	300.0	120.0	0.05
P-3	80	J-5	HYD-5	300.0	110.0	0.04
P-4	17	HYD-5	J-6	300.0	110.0	0.04
P-5	82	J-6	J-7	300.0	120.0	0.04
P-6	85	J-7	HYD-2	300.0	120.0	0.04
P-7	97	HYD-2	HYD-3	300.0	120.0	0.03
P-8	35	HYD-3	J-10	300.0	120.0	0.05
P-9	115	J-10	J-11	300.0	120.0	0.05
P-10	235	J-11	J-1	300.0	120.0	0.05
P-11	107	J-2	HYD-1	300.0	120.0	0.09
P-12	56	HYD-1	J-21	300.0	120.0	0.09
P-13	73	J-21	HYD-2	300.0	120.0	0.02
P-14	98	HYD-2	J-18	200.0	110.0	0.02
P-15	73	J-18	HYD-8	200.0	110.0	0.01
P-16	25	HYD-8	J-12	200.0	110.0	0.01
P-17	86	J-12	J-13	200.0	110.0	0.02
P-18	19	J-13	HYD-7	200.0	110.0	0.00
P-19	86	HYD-7	J-17	200.0	110.0	0.00
P-20	83	J-17	HYD-4	200.0	110.0	0.02
P-21	21	HYD-4	J-7	200.0	110.0	0.02
P-22	79	J-13	J-15	200.0	110.0	0.02
P-23	60	J-15	HYD-6	200.0	110.0	0.01
P-24	43	HYD-6	J-16	200.0	110.0	0.01
P-25	111	J-16	J-6	200.0	110.0	0.00
P-26	95	J-12	J-20	200.0	110.0	0.02
P-27	15	J-20	HYD-9	200.0	110.0	0.03
P-28	65	HYD-9	J-19	250.0	110.0	0.02
P-29	91	J-19	HYD-3	250.0	110.0	0.03
P-32	101	J-22	J-23	300.0	120.0	0.02
P-33	94	J-23	J-21	300.0	120.0	0.06
P-35	1	J-2	J-1	300.0	120.0	0.05
P-36	1	J-2	J-3	300.0	120.0	0.11
P-37	1	R-1	PMP-1	300.0	120.0	0.24
P-38	1	PMP-1	J-2	300.0	120.0	0.24

Appendix 2

Sanitary Servicing Information



EXISTING SERVICES	DRAWING #, SOURCE	DATE	CONSTRUCTED SERVICES	COMPLETION

DETAILS	
DESIGN	TK
DRAWN BY	TK
CHECKED	VP
APPROVED	VP
DATE	SEPTEMBER 2018

No.	REVISIONS	DATE	CONSULTANT
1	AS PER M.C. COMMENTS	JAN. 30, 2018	ENG PLUS LTD.
2	AS PER M.C. COMMENTS	MAR. 05, 2018	ENG PLUS LTD.
3	M.O.E.C.C. SUBMISSION	APR. 17, 2018	ENG PLUS LTD.
4	AS PER M.C. COMMENTS	MAY 28, 2018	ENG PLUS LTD.
5	AS PER M.C. COMMENTS	AUG. 17, 2018	ENG PLUS LTD.
6	AS PER M.C. COMMENTS	SEPT. 14, 2018	ENG PLUS LTD

CONSULTANT OR DIVISION

ENG PLUS

Engineers
Landscape Architects
and Building Designers

100–609 WILLIAM STREET, LONDON, ON. N6B 3G1
tel. 519.438.6994 fax. 519.438.7052

ENGINEER'S STAMP

LICENSED PROFESSIONAL ENGINEER
Sept. 14, 2018
V. PHAM
PROVINCE OF ONTARIO

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SCALE

SCALE – 1 : 1500
15m 0 30m

TITLE

KILWORTH HEIGHTS WEST SUBDIVISION
KILWORTH HEIGHTS WEST LTD.

EXTERNAL SANITARY AREA PLAN

PROJECT No. 15.093

SHEET No. 8

PLAN FILE No.

PRINTED ON: Sep 13, 2018 1:32pm FILE NAME: X:\Engineering\15.093 Block Subdivision\Engineering Drawings\CSD\15.093-Design.dwg LAYOUT: EXTERNAL SANITARY AREA PLAN

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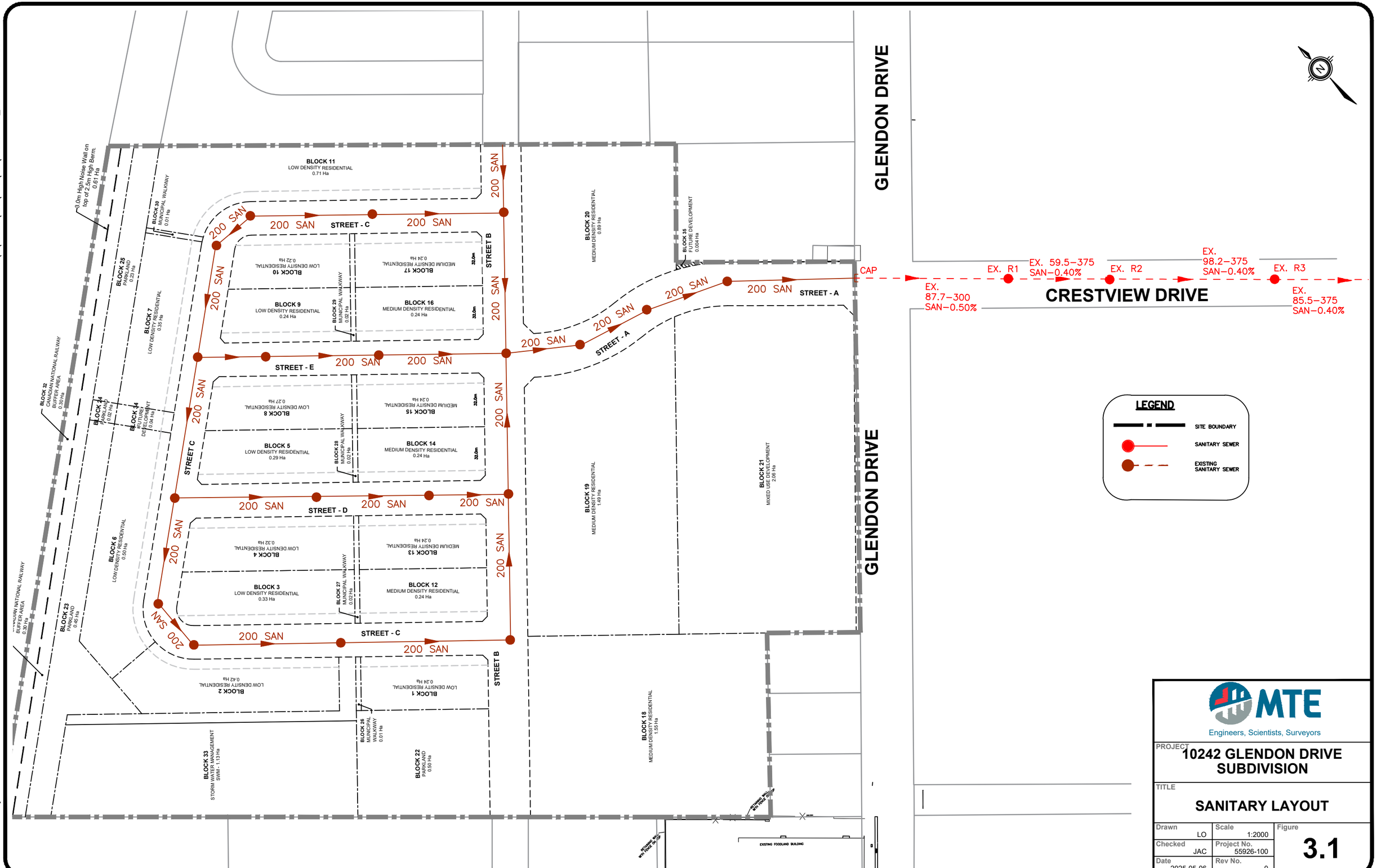
Plot Date: May 27, 2025 - 1:12 PM



MTE
Engineers, Scientists, Surveyors

PROJECT
10242 GLENDON DRIVE SUBDIVISION

TITLE
SANITARY LAYOUT

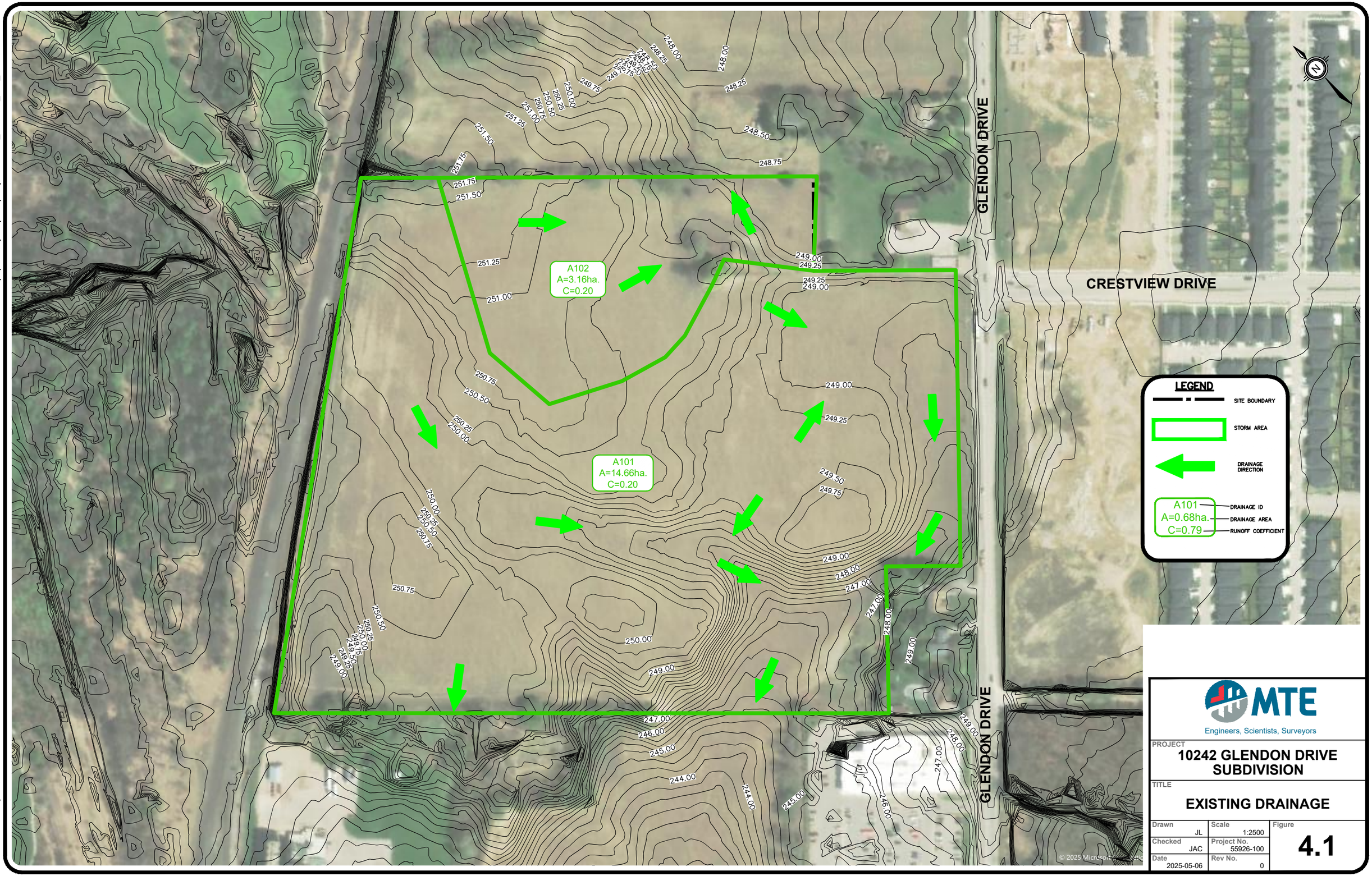
Drawn: LO	Scale: 1:2000	Figure: 3.1
Checked: JAC	Project No.: 55926-100	
Date: 2025-05-06	Rev No.: 0	

Appendix 4

Stormwater Servicing Information

CAD: P:\55926\100\DWG\FIG\55926-100_EXISTING_STM_DRAINAGE.DWG

Plot Date: May 22, 2025 – 3:11 PM



Engineers, Scientists, Surveyors

PROJECT
10242 GLENDON DRIVE SUBDIVISION

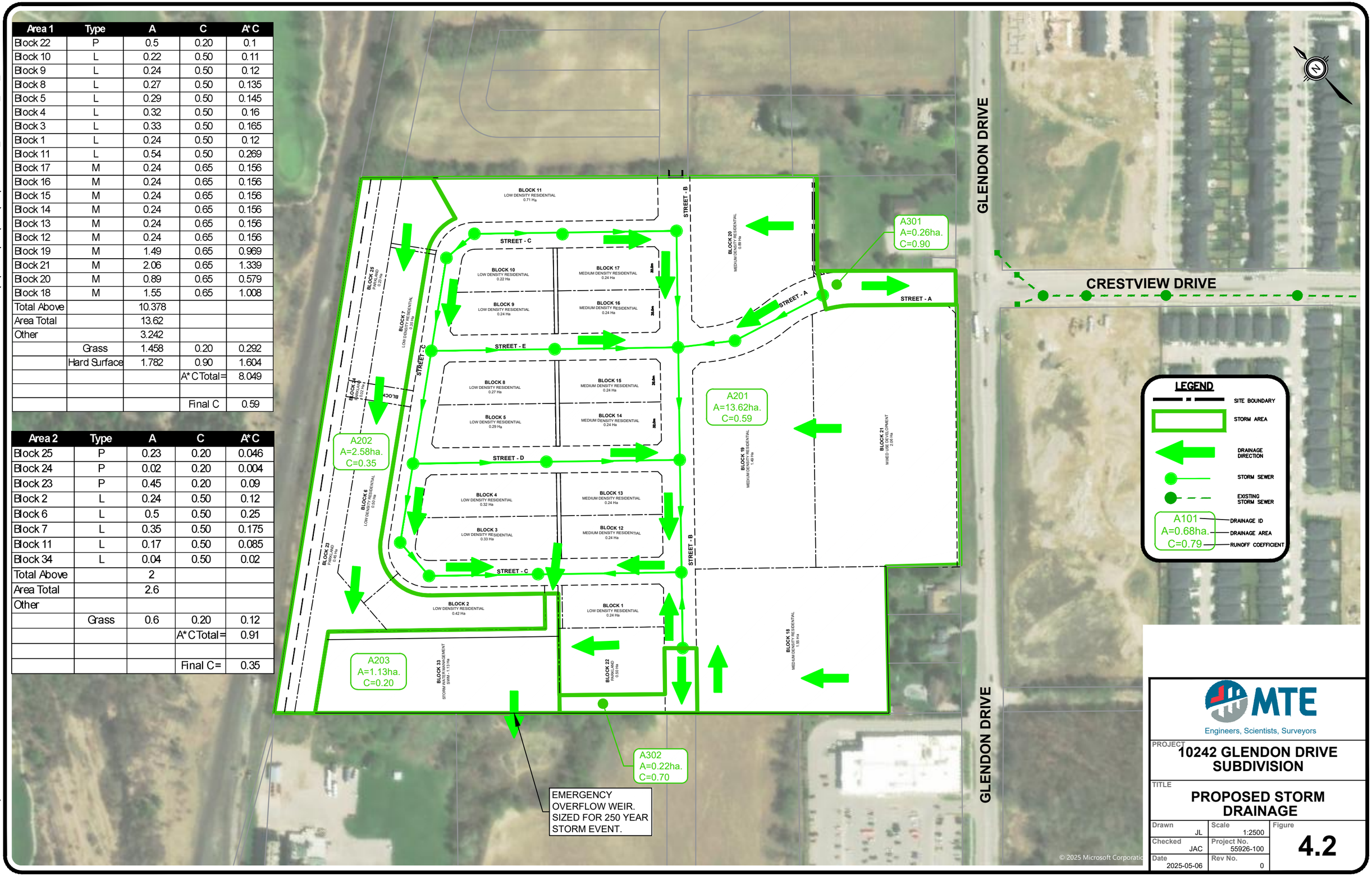
TITLE
EXISTING DRAINAGE

Drawn	Scale	Figure
JL	1:2500	**4.1**
Checked	Project No.	
JAC	55926-100	
Date	Rev No.	
2025-05-06	0	

CAD: P:\P\55926\100\DWG\FIG\55926-100_PROPOSED_STM_DRAINAGE.DWG

Area 1	Type	A	C	A*C
Block 22	P	0.5	0.20	0.1
Block 10	L	0.22	0.50	0.11
Block 9	L	0.24	0.50	0.12
Block 8	L	0.27	0.50	0.135
Block 5	L	0.29	0.50	0.145
Block 4	L	0.32	0.50	0.16
Block 3	L	0.33	0.50	0.165
Block 1	L	0.24	0.50	0.12
Block 11	L	0.54	0.50	0.269
Block 17	M	0.24	0.65	0.156
Block 16	M	0.24	0.65	0.156
Block 15	M	0.24	0.65	0.156
Block 14	M	0.24	0.65	0.156
Block 13	M	0.24	0.65	0.156
Block 12	M	0.24	0.65	0.156
Block 19	M	1.49	0.65	0.969
Block 21	M	2.06	0.65	1.339
Block 20	M	0.89	0.65	0.579
Block 18	M	1.55	0.65	1.008
Total Above		10.378		
Area Total		13.62		
Other		3.242		
	Grass	1.458	0.20	0.292
	Hard Surface	1.782	0.90	1.604
			A*C Total=	8.049
			Final C	0.59

Area 2	Type	A	C	A*C
Block 25	P	0.23	0.20	0.046
Block 24	P	0.02	0.20	0.004
Block 23	P	0.45	0.20	0.09
Block 2	L	0.24	0.50	0.12
Block 6	L	0.5	0.50	0.25
Block 7	L	0.35	0.50	0.175
Block 11	L	0.17	0.50	0.085
Block 34	L	0.04	0.50	0.02
Total Above		2		
Area Total		2.6		
Other				
	Grass	0.6	0.20	0.12
			A*C Total=	0.91
			Final C=	0.35



Engineers, Scientists, Surveyors

PROJECT
10242 GLENDON DRIVE SUBDIVISION

TITLE
PROPOSED STORM DRAINAGE

Drawn	JL	Scale	1:2500
Checked	JAC	Project No.	55926-100
Date	2025-05-06	Rev No.	0

Figure **4.2**

Plot Date: May 22, 2025 - 3:12 PM

10242 Glendon Drive
STORMWATER MANAGEMENT
Komoka, Ontario

Project Number:	55926-100
Date:	May 22, 2025
Design By:	JAC
File:	https://mte85.sharepoint.com/sites/55926-100/Shared Documents/MTE Reports/FSR/swm/55926-100Master SWM Facility Design Sheet.xlsx

HYDROLOGIC PARAMETERS

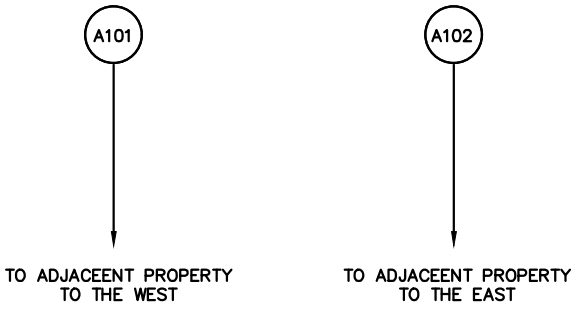
Pre-Development Conditions

Sub-Catchment Number	Area	Overland Slope	Overland Length	SCS Curve Number			Percent Impervious	Land Use	Comment
				Pervious (AMC II)	Pervious (AMC III)	Impervious			
	(ha)	*(%)*	*(m)*				*(%)*		
101	14.66	525	0.93	75	87	98	0	Agriculture	Drains Externaly
102	3.16	210	0.77	75	87	98	0	Agriculture	Drains Externaly
Total	**17.82**						**0.00**		

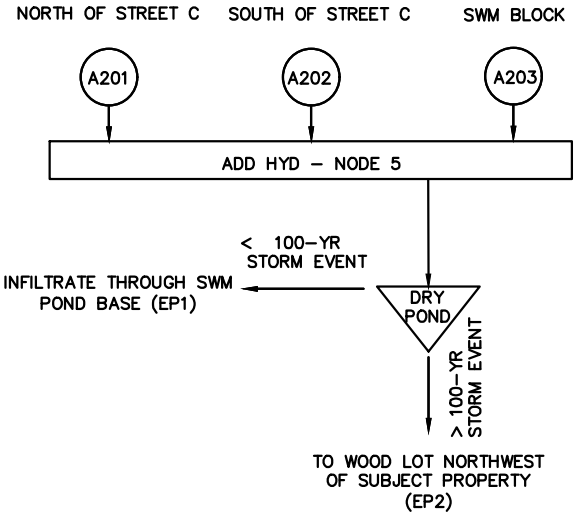
Post-Development Conditions

Sub-Catchment Number	Area	Overland Slope	Overland Length	SCS Curve Number			Percent Impervious	Land Use	Comment
				Pervious (AMC II)	Pervious (AMC III)	Impervious			
	(ha)	*(%)*	*(m)*				*(%)*		
201	13.62	2	356	75	87	98	52.1	Residential	Proposed Dev.
202	2.58	0.8	555	81	91	98	25	Residential	Proposed Dev.
203	1.13				0	98	0	SWM Pond	Proposed Dev.
301	0.26	2	57	95	98	98	45	Road	Proposed Dev.
302	0.22	1.8	105	95	98	98	45	Road	Proposed Dev.
Total	**17.81**						**44.68**		
Total to Pond	**16.2**						**47.78**		

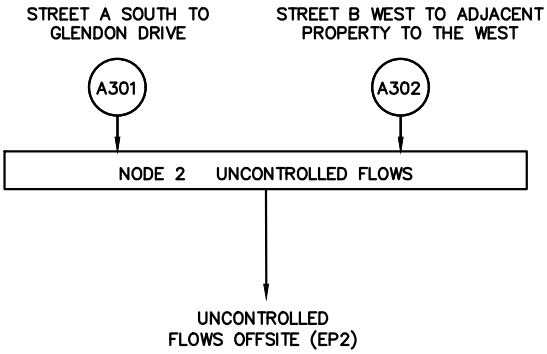
PRE-DEVELOPMENT HYDROLOGIC MODELLING SCHEMATIC



POST-DEVELOPMENT (CONTROLLED) HYDROLOGIC MODELLING SCHEMATIC



POST-DEVELOPMENT (UNCONTROLLED) HYDROLOGIC MODELLING SCHEMATIC



LEGEND

- 202 — HYDROGRAPH GENERATION
- POND INF — HYDROGRAPH ROUTING
- NODE 2 — HYDROGRAPH ADDITION MIDUSS STORAGE LOCATION NUMBER

FIGURE 4.3

Date: 5/20/2025
Scale: N/A

HYDROLOGIC MODELLING SCHEMATIC

MTE
Engineers | Scientists | Surveyors

Project No.: 55926-100

```
================================================================================
===

   SSSSS  W   W  M   M  H   H  Y   Y  M   M   OOO        999    999
=========
   S      W W W  MM MM  H   H   Y Y   MM MM  O   O      9   9  9   9
   SSSSS  W W W  M M M  HHHHH    Y    M M M  O   O  ##  9   9  9   9   Ver
4.05
       S   W W   M   M  H   H    Y    M   M  O   O       9999   9999   Sept
2011
   SSSSS   W W   M   M  H   H    Y    M   M   OOO           9      9
=========
                                                        9   9  9   9   #
3053466
        StormWater Management HYdrologic Model           999    999
=========


********************************************************************************
*
 ****************************** SWMHYMO Ver/4.05
******************************
 *********  A single event and continuous hydrologic simulation model
*********
 *********     based on the principles of HYMO and its successors
*********
 *********                 OTTHYMO-83 and OTTHYMO-89.
*********

********************************************************************************
*
 ********* Distributed by:  J.F. Sabourin and Associates Inc.
*********
 *********                  Ottawa,  Ontario: (613) 836-3884
*********
 *********                  Gatineau, Quebec: (819) 243-6858
*********
 *********                  E-Mail: swmhymo@jfsa.Com
*********

********************************************************************************
*


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+
 +++++++++ Licensed user: MTE Consultants Inc.
+++++++++
 +++++++++                Burlington            SERIAL#:3053466
+++++++++

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+
```

```
*******************************************************************************
*
 *********           ++++++ PROGRAM ARRAY DIMENSIONS ++++++
*********
 *********           Maximum value for ID numbers  :     10
*********
 *********           Max. number of rainfall points: 105408
*********
 *********           Max. number of flow points    : 105408
*********

*******************************************************************************
*


 **********************   D E T A I L E D   O U T P U T
**********************

*******************************************************************************
*
 *         DATE: 2025-05-21     TIME: 13:12:50     RUN COUNTER: 000009
*

*******************************************************************************
*
 * Input   filename: Q:\55926\100\202505~1\SWMHYMO\PREMODEL.dat
*
 * Output  filename: Q:\55926\100\202505~1\SWMHYMO\PREMODEL.out
*
 * Summary filename: Q:\55926\100\202505~1\SWMHYMO\PREMODEL.sum
*
 * User comments:
*
 *
1:_____________________________________________________________________________*
 *
2:_____________________________________________________________________________*
 *
3:_____________________________________________________________________________*

*******************************************************************************
*

--------------------------------------------------------------------------------
-------
001:0001-----------------------------------------------------------------------
-------
*#*****************************************************************************
**
*#  Project Name: [GLENDON]    Project Number: [55926-100]
```

```
*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#**************************************************************************
**
--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 001
    NSTORM=   1
           #  1=25mm.HYT
--------------------------------------------------------------------------------
-------
001:0002-----------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 25mm Chicago 4-hr duration
| Ptotal=  24.83 mm|    Comments: 25mm Chicago 4-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   1.326 |   1.17   3.978 |   2.25   4.889 |   3.33   1.844
               .17   1.392 |   1.25   4.803 |   2.33   4.304 |   3.42   1.765
               .25   1.466 |   1.33   6.089 |   2.42   3.849 |   3.50   1.693
               .33   1.549 |   1.42   8.350 |   2.50   3.485 |   3.58   1.627
               .42   1.643 |   1.50  13.259 |   2.58   3.187 |   3.67   1.567
               .50   1.750 |   1.58  29.925 |   2.67   2.939 |   3.75   1.511
               .58   1.875 |   1.67  75.600 |   2.75   2.729 |   3.83   1.460
               .67   2.020 |   1.75  27.475 |   2.83   2.549 |   3.92   1.412
               .75   2.193 |   1.83  15.856 |   2.92   2.392 |   4.00   1.368
               .83   2.401 |   1.92  10.977 |   3.00   2.256 |   4.08   1.326
               .92   2.657 |   2.00   8.363 |   3.08   2.135 |
              1.00   2.981 |   2.08   6.752 |   3.17   2.027 |
              1.08   3.404 |   2.17   5.667 |   3.25   1.930 |

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001:0003-----------------------------------------------------------------------
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*==========================================================================
=
*

*         AREAS TRIBUTARY TO THE WEST
```

```
*
*===============================================================================
=
*===============================================================================
=
*EXISTING AGRICULTURAL LANDS (WEST)

*===============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=   14.66   Curve Number   (CN)=75.00
| 01:101    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .690

     Unit Hyd Qpeak  (cms)=     .812

     PEAK FLOW       (cms)=     .076 (i)
     TIME TO PEAK    (hrs)=    2.583
     RUNOFF VOLUME    (mm)=    3.764
     TOTAL RAINFALL   (mm)=   24.833
     RUNOFF COEFFICIENT   =     .152

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
-------
001:0004--------------------------------------------------------------------
-------
*===============================================================================
=
*

*         AREAS TRIBUTARY TO THE EAST

*

*===============================================================================
=
*===============================================================================
=
*EXISTING AGRICULTURAL LANDS (EAST)

*===============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    3.16   Curve Number   (CN)=75.00
| 02:102    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .460

     Unit Hyd Qpeak  (cms)=     .262
```

```
     PEAK FLOW       (cms)=     .021 (i)
     TIME TO PEAK    (hrs)=    2.250
     RUNOFF VOLUME    (mm)=    3.764
     TOTAL RAINFALL   (mm)=   24.833
     RUNOFF COEFFICIENT   =     .152

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------
001:0005-------------------------------------------------------------------------
-------
  ** END OF RUN :   1

********************************************************************************
*




--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 002
    NSTORM=   1
           #  1=2YR.HYT
--------------------------------------------------------------------------------
-------
002:0002-------------------------------------------------------------------------
-------
*#*****************************************************************************
**
*#  Project Name: [GLENDON]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#*****************************************************************************
**
--------------------------------------------------------------------------------
-------
002:0002-------------------------------------------------------------------------
-------
```

```
--------------------
| READ STORM       |    Filename: 2YR Chicago 3-hr duration
| Ptotal=  32.95 mm|    Comments: 2YR Chicago 3-hr duration
--------------------
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
.08	2.366	.92	7.556	1.75	8.343	2.58	3.173
.17	2.528	1.00	9.957	1.83	7.120	2.67	2.999
.25	2.716	1.08	14.640	1.92	6.218	2.75	2.844
.33	2.938	1.17	27.128	2.00	5.527	2.83	2.706
.42	3.203	1.25	106.663	2.08	4.980	2.92	2.581
.50	3.527	1.33	54.508	2.17	4.537	3.00	2.469
.58	3.931	1.42	26.925	2.25	4.170	3.08	2.366
.67	4.449	1.50	17.418	2.33	3.862		
.75	5.140	1.58	12.788	2.42	3.599		
.83	6.108	1.67	10.093	2.50	3.372		

```
--------------------------------------------------------------------------------
-------
002:0003-----------------------------------------------------------------------
-------
*==============================================================================
=
*

*         AREAS TRIBUTARY TO THE WEST

*

*==============================================================================
=
*==============================================================================
=
*EXISTING AGRICULTURAL LANDS (WEST)

*==============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=   14.66   Curve Number   (CN)=75.00
| 01:101    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .690

     Unit Hyd Qpeak  (cms)=     .812

     PEAK FLOW       (cms)=     .156 (i)
     TIME TO PEAK    (hrs)=    2.167
     RUNOFF VOLUME    (mm)=    6.938
     TOTAL RAINFALL   (mm)=   32.954
     RUNOFF COEFFICIENT   =     .211

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
```

```
-------
002:0004-------------------------------------------------------------------
-------
*===========================================================================
=
*

*         AREAS TRIBUTARY TO THE EAST

*

*===========================================================================
=
*===========================================================================
=
*EXISTING AGRICULTURAL LANDS (EAST)

*===========================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    3.16   Curve Number   (CN)=75.00
| 02:102    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .460

     Unit Hyd Qpeak  (cms)=     .262

     PEAK FLOW       (cms)=     .044 (i)
     TIME TO PEAK    (hrs)=    1.833
     RUNOFF VOLUME    (mm)=    6.938
     TOTAL RAINFALL   (mm)=   32.954
     RUNOFF COEFFICIENT   =     .211

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
-------
002:0005-------------------------------------------------------------------
-------
-------------------------------------------------------------------------------
-------
002:0002-------------------------------------------------------------------
-------
  ** END OF RUN :   4

*******************************************************************************
*




--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\
```

```
--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 005
    NSTORM=   1
           #  1=5YR.HYT
--------------------------------------------------------------------------------
-------
005:0002----------------------------------------------------------------------
-------
*#*****************************************************************************
**
*#  Project Name: [GLENDON]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#*****************************************************************************
**
--------------------------------------------------------------------------------
-------
005:0002----------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 5YR Chicago 3-hr duration
| Ptotal=  44.47 mm|    Comments: 5YR Chicago 3-hr duration
--------------------
              TIME     RAIN |   TIME     RAIN |   TIME     RAIN |   TIME     RAIN
               hrs    mm/hr |    hrs    mm/hr |    hrs    mm/hr |    hrs    mm/hr
               .08    2.889 |    .92   10.155 |   1.75   11.292 |   2.58    3.967
               .17    3.102 |   1.00   13.656 |   1.83    9.520 |   2.67    3.731
               .25    3.352 |   1.08   20.548 |   1.92    8.224 |   2.75    3.523
               .33    3.649 |   1.17   38.765 |   2.00    7.239 |   2.83    3.338
               .42    4.007 |   1.25  141.200 |   2.08    6.466 |   2.92    3.173
               .50    4.447 |   1.33   76.415 |   2.17    5.844 |   3.00    3.024
               .58    5.002 |   1.42   38.412 |   2.25    5.333 |   3.08    2.889
               .67    5.722 |   1.50   24.610 |   2.33    4.907 |
               .75    6.693 |   1.58   17.806 |   2.42    4.545 |
               .83    8.068 |   1.67   13.848 |   2.50    4.235 |

--------------------------------------------------------------------------------
-------
005:0003----------------------------------------------------------------------
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*=============================================================================
=
```

```
*
*         AREAS TRIBUTARY TO THE WEST
*
*=============================================================================
=
*=============================================================================
=
*EXISTING AGRICULTURAL LANDS (WEST)

*=============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=   14.66   Curve Number   (CN)=75.00
| 01:101    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .690

     Unit Hyd Qpeak  (cms)=     .812

     PEAK FLOW       (cms)=     .293 (i)
     TIME TO PEAK    (hrs)=    2.167
     RUNOFF VOLUME    (mm)=   12.548
     TOTAL RAINFALL   (mm)=   44.466
     RUNOFF COEFFICIENT   =     .282

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
-------
005:0004---------------------------------------------------------------------
-------
*=============================================================================
=
*
*         AREAS TRIBUTARY TO THE EAST
*
*=============================================================================
=
*=============================================================================
=
*EXISTING AGRICULTURAL LANDS (EAST)

*=============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    3.16   Curve Number   (CN)=75.00
| 02:102    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .460
```

```
     Unit Hyd Qpeak  (cms)=     .262

     PEAK FLOW       (cms)=     .084 (i)
     TIME TO PEAK    (hrs)=    1.833
     RUNOFF VOLUME    (mm)=   12.548
     TOTAL RAINFALL   (mm)=   44.466
     RUNOFF COEFFICIENT   =     .282

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

---------------------------------------------------------------------------
-------
005:0005-----------------------------------------------------------------
-------
---------------------------------------------------------------------------
-------
005:0002-----------------------------------------------------------------
-------
---------------------------------------------------------------------------
-------
005:0002-----------------------------------------------------------------
-------
  ** END OF RUN :   9

***************************************************************************
*




--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 010
    NSTORM=   1
           #  1=10YR.HYT
---------------------------------------------------------------------------
-------
010:0002-----------------------------------------------------------------
-------
*#************************************************************************
**
*#  Project Name: [GLENDON]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]
```

```
*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#**************************************************************************
**
--------------------------------------------------------------------------------
-------
010:0002-------------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 10YR Chicago 3-hr duration
| Ptotal=  52.37 mm|    Comments: 10YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   3.141 |    .92  11.986 |   1.75  13.417 |   2.58   4.407
               .17   3.389 |   1.00  16.365 |   1.83  11.203 |   2.67   4.128
               .25   3.681 |   1.08  25.006 |   1.92   9.593 |   2.75   3.882
               .33   4.030 |   1.17  47.536 |   2.00   8.375 |   2.83   3.665
               .42   4.454 |   1.25 162.500 |   2.08   7.426 |   2.92   3.472
               .50   4.979 |   1.33  92.425 |   2.17   6.667 |   3.00   3.298
               .58   5.645 |   1.42  47.240 |   2.25   6.047 |   3.08   3.141
               .67   6.517 |   1.50  30.137 |   2.33   5.531 |
               .75   7.701 |   1.58  21.600 |   2.42   5.097 |
               .83   9.394 |   1.67  16.623 |   2.50   4.727 |

--------------------------------------------------------------------------------
-------
010:0003-------------------------------------------------------------------------
-------
*==========================================================================
=
*

*         AREAS TRIBUTARY TO THE WEST

*

*==========================================================================
=
*==========================================================================
=
*EXISTING AGRICULTURAL LANDS (WEST)

*==========================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=   14.66   Curve Number   (CN)=75.00
| 01:101    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .690
```

```
     Unit Hyd Qpeak  (cms)=     .812

     PEAK FLOW       (cms)=     .404 (i)
     TIME TO PEAK    (hrs)=    2.083
     RUNOFF VOLUME    (mm)=   16.994
     TOTAL RAINFALL   (mm)=   52.369
     RUNOFF COEFFICIENT   =     .325

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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010:0004-----------------------------------------------------------------
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*===========================================================================
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*

*         AREAS TRIBUTARY TO THE EAST

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*===========================================================================
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*===========================================================================
=
*EXISTING AGRICULTURAL LANDS (EAST)

*===========================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    3.16   Curve Number   (CN)=75.00
| 02:102    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .460

     Unit Hyd Qpeak  (cms)=     .262

     PEAK FLOW       (cms)=     .117 (i)
     TIME TO PEAK    (hrs)=    1.833
     RUNOFF VOLUME    (mm)=   16.994
     TOTAL RAINFALL   (mm)=   52.369
     RUNOFF COEFFICIENT   =     .325

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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010:0005-----------------------------------------------------------------
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010:0002-----------------------------------------------------------------
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010:0002----------------------------------------------------------------------
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010:0002----------------------------------------------------------------------
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  ** END OF RUN :  24

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--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 025
    NSTORM=   1
           #  1=25YR.HYT
--------------------------------------------------------------------------------
-------
025:0002----------------------------------------------------------------------
-------
*#****************************************************************************
**
*#  Project Name: [GLENDON]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#****************************************************************************
**
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-------
025:0002----------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 25YR Chicago 3-hr duration
| Ptotal=  61.85 mm|    Comments: 25YR Chicago 3-hr duration
--------------------
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
.08	3.490	.92	14.107	1.75	15.861	2.58	4.972
.17	3.779	1.00	19.457	1.83	13.158	2.67	4.644
.25	4.120	1.08	30.035	1.92	11.200	2.75	4.356
.33	4.529	1.17	57.437	2.00	9.725	2.83	4.101
.42	5.028	1.25	190.801	2.08	8.578	2.92	3.875
.50	5.649	1.33	111.064	2.17	7.665	3.00	3.672
.58	6.442	1.42	57.174	2.25	6.922	3.08	3.490
.67	7.484	1.50	36.348	2.33	6.307		
.75	8.908	1.58	25.889	2.42	5.790		
.83	10.956	1.67	19.786	2.50	5.351		

025:0003---
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* AREAS TRIBUTARY TO THE WEST

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*==========
=
*EXISTING AGRICULTURAL LANDS (WEST)

*==========
=

| CALIB NASHYD | Area (ha)= 14.66 | Curve Number (CN)=75.00
| 01:101 DT= 5.00 | Ia (mm)= 5.000 | # of Linear Res.(N)= 3.00

U.H. Tp(hrs)= .690

Unit Hyd Qpeak (cms)= .812

PEAK FLOW (cms)= .553 (i)
TIME TO PEAK (hrs)= 2.083
RUNOFF VOLUME (mm)= 22.835
TOTAL RAINFALL (mm)= 61.846
RUNOFF COEFFICIENT = .369

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

025:0004---
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*         AREAS TRIBUTARY TO THE EAST

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*===============================================================================
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*===============================================================================
=
*EXISTING AGRICULTURAL LANDS (EAST)

*===============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    3.16   Curve Number   (CN)=75.00
| 02:102    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .460

     Unit Hyd Qpeak  (cms)=     .262

     PEAK FLOW       (cms)=     .160 (i)
     TIME TO PEAK    (hrs)=    1.833
     RUNOFF VOLUME    (mm)=   22.835
     TOTAL RAINFALL   (mm)=   61.846
     RUNOFF COEFFICIENT   =     .369

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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025:0005---------------------------------------------------------------------
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025:0002---------------------------------------------------------------------
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025:0002---------------------------------------------------------------------
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025:0002---------------------------------------------------------------------
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025:0002---------------------------------------------------------------------
-------
  ** END OF RUN :  49

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```
--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\
--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 050
    NSTORM=   1
           #  1=50YR.HYT
--------------------------------------------------------------------------------
-------
050:0002-----------------------------------------------------------------------
-------
*#*****************************************************************************
**
*#  Project Name: [GLENDON]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#*****************************************************************************
**
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-------
050:0002-----------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 50YR Chicago 3-hr duration
| Ptotal=  69.13 mm|    Comments: 50YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   3.895 |    .92  15.824 |   1.75  17.797 |   2.58   5.558
               .17   4.219 |   1.00  21.837 |   1.83  14.758 |   2.67   5.189
               .25   4.601 |   1.08  33.713 |   1.92  12.556 |   2.75   4.866
               .33   5.060 |   1.17  64.387 |   2.00  10.897 |   2.83   4.580
               .42   5.620 |   1.25 212.001 |   2.08   9.609 |   2.92   4.326
               .50   6.318 |   1.33 124.085 |   2.17   8.582 |   3.00   4.100
               .58   7.208 |   1.42  64.104 |   2.25   7.747 |   3.08   3.895
               .67   8.379 |   1.50  40.797 |   2.33   7.057 |
               .75   9.980 |   1.58  29.062 |   2.42   6.476 |
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               .83  12.281 |   1.67  22.208 |   2.50   5.983 |

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050:0003---------------------------------------------------------------------
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*===============================================================================
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*         AREAS TRIBUTARY TO THE WEST

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*===============================================================================
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*===============================================================================
=
*EXISTING AGRICULTURAL LANDS (WEST)

*===============================================================================
=
-----------------------
| CALIB NASHYD       |   Area    (ha)=   14.66   Curve Number   (CN)=75.00
| 01:101    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
-----------------------   U.H. Tp(hrs)=    .690

     Unit Hyd Qpeak  (cms)=     .812

     PEAK FLOW       (cms)=     .672 (i)
     TIME TO PEAK    (hrs)=    2.083
     RUNOFF VOLUME    (mm)=   27.639
     TOTAL RAINFALL   (mm)=   69.130
     RUNOFF COEFFICIENT   =     .400

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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050:0004---------------------------------------------------------------------
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*===============================================================================
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*         AREAS TRIBUTARY TO THE EAST

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*===============================================================================
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*===============================================================================
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```
*EXISTING AGRICULTURAL LANDS (EAST)

*==========================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    3.16   Curve Number   (CN)=75.00
| 02:102    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .460

     Unit Hyd Qpeak  (cms)=     .262

     PEAK FLOW       (cms)=     .195 (i)
     TIME TO PEAK    (hrs)=    1.833
     RUNOFF VOLUME    (mm)=   27.639
     TOTAL RAINFALL   (mm)=   69.130
     RUNOFF COEFFICIENT   =     .400

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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050:0005--------------------------------------------------------------------
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050:0002--------------------------------------------------------------------
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050:0002--------------------------------------------------------------------
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050:0002--------------------------------------------------------------------
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050:0002--------------------------------------------------------------------
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050:0002--------------------------------------------------------------------
-------
  ** END OF RUN :  99

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```
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 100
    NSTORM=   1
           #  1=100YR.HYT
--------------------------------------------------------------------------------
-------
100:0002-----------------------------------------------------------------------
-------
*#**************************************************************************
**
*#  Project Name: [GLENDON]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#**************************************************************************
**
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-------
100:0002-----------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 100YR Chicago 3-hr duration
| Ptotal=  76.27 mm|    Comments: 100YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   4.164 |    .92  17.483 |   1.75  19.709 |   2.58   5.997
               .17   4.519 |   1.00  24.251 |   1.83  16.288 |   2.67   5.589
               .25   4.940 |   1.08  37.617 |   1.92  13.813 |   2.75   5.232
               .33   5.447 |   1.17  71.935 |   2.00  11.952 |   2.83   4.917
               .42   6.066 |   1.25 232.200 |   2.08  10.509 |   2.92   4.638
               .50   6.839 |   1.33 137.906 |   2.17   9.361 |   3.00   4.388
               .58   7.828 |   1.42  71.694 |   2.25   8.430 |   3.08   4.164
               .67   9.133 |   1.50  45.604 |   2.33   7.661 |
               .75  10.922 |   1.58  32.403 |   2.42   7.015 |
               .83  13.502 |   1.67  24.679 |   2.50   6.467 |

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100:0003-----------------------------------------------------------------------
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*

*         AREAS TRIBUTARY TO THE WEST

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*===============================================================================
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*===============================================================================
=
*EXISTING AGRICULTURAL LANDS (WEST)

*===============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=   14.66   Curve Number   (CN)=75.00
| 01:101    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .690

     Unit Hyd Qpeak  (cms)=     .812

     PEAK FLOW       (cms)=     .798 (i)
     TIME TO PEAK    (hrs)=    2.083
     RUNOFF VOLUME    (mm)=   32.575
     TOTAL RAINFALL   (mm)=   76.272
     RUNOFF COEFFICIENT   =     .427

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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100:0004--------------------------------------------------------------------
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*===============================================================================
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*

*         AREAS TRIBUTARY TO THE EAST

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*===============================================================================
=
*===============================================================================
=
*EXISTING AGRICULTURAL LANDS (EAST)

*===============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    3.16   Curve Number   (CN)=75.00
| 02:102    DT= 5.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
```

```
----------------------   U.H. Tp(hrs)=    .460

     Unit Hyd Qpeak  (cms)=     .262

     PEAK FLOW       (cms)=     .232 (i)
     TIME TO PEAK    (hrs)=    1.833
     RUNOFF VOLUME    (mm)=   32.575
     TOTAL RAINFALL   (mm)=   76.272
     RUNOFF COEFFICIENT   =     .427

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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100:0005-------------------------------------------------------------------------
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100:0002-------------------------------------------------------------------------
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100:0002-------------------------------------------------------------------------
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100:0002-------------------------------------------------------------------------
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100:0002-------------------------------------------------------------------------
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100:0002-------------------------------------------------------------------------
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100:0002-------------------------------------------------------------------------
-------
      FINISH
--------------------------------------------------------------------------------
-------
********************************************************************************
*******
     WARNINGS / ERRORS / NOTES
     -------------------------
   Simulation ended on 2025-05-21     at 13:12:52
================================================================================
=======
```

```
================================================================================
===

   SSSSS  W   W  M   M  H   H  Y   Y  M   M   OOO        999    999
=========
   S      W W W  MM MM  H   H   Y Y   MM MM  O   O      9   9  9   9
   SSSSS  W W W  M M M  HHHHH    Y    M M M  O   O  ##  9   9  9   9   Ver
4.05
       S   W W   M   M  H   H    Y    M   M  O   O       9999   9999   Sept
2011
   SSSSS   W W   M   M  H   H    Y    M   M   OOO           9      9
=========
                                                        9   9  9   9   #
3053466
        StormWater Management HYdrologic Model           999    999
=========


********************************************************************************
*
 ****************************** SWMHYMO Ver/4.05
******************************
 *********  A single event and continuous hydrologic simulation model
*********
 *********     based on the principles of HYMO and its successors
*********
 *********                 OTTHYMO-83 and OTTHYMO-89.
*********

********************************************************************************
*
 ********* Distributed by:  J.F. Sabourin and Associates Inc.
*********
 *********                  Ottawa,  Ontario: (613) 836-3884
*********
 *********                  Gatineau, Quebec: (819) 243-6858
*********
 *********                  E-Mail: swmhymo@jfsa.Com
*********

********************************************************************************
*


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+
 +++++++++ Licensed user: MTE Consultants Inc.
+++++++++
 +++++++++                Burlington            SERIAL#:3053466
+++++++++

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+
```

```
*******************************************************************************
*
 *********           ++++++ PROGRAM ARRAY DIMENSIONS ++++++
*********
 *********           Maximum value for ID numbers  :     10
*********
 *********           Max. number of rainfall points: 105408
*********
 *********           Max. number of flow points    : 105408
*********

*******************************************************************************
*


 **********************   D E T A I L E D   O U T P U T
**********************

*******************************************************************************
*
 *         DATE: 2025-05-27     TIME: 13:13:22     RUN COUNTER: 000033
*

*******************************************************************************
*
 * Input   filename: Q:\55926\100\202505~1\SWMHYMO\POST_DEV.dat
*
 * Output  filename: Q:\55926\100\202505~1\SWMHYMO\POST_DEV.out
*
 * Summary filename: Q:\55926\100\202505~1\SWMHYMO\POST_DEV.sum
*
 * User comments:
*
 *
1:_____________________________________________________________________________*
 *
2:_____________________________________________________________________________*
 *
3:_____________________________________________________________________________*

*******************************************************************************
*

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-------
001:0001-----------------------------------------------------------------------
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*#*****************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]
```

```
*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#**************************************************************************
**
--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 001
    NSTORM=   1
           #  1=25mm.HYT
--------------------------------------------------------------------------------
-------
001:0002-----------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 25mm Chicago 4-hr duration
| Ptotal=  24.83 mm|    Comments: 25mm Chicago 4-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   1.326 |   1.17   3.978 |   2.25   4.889 |   3.33   1.844
               .17   1.392 |   1.25   4.803 |   2.33   4.304 |   3.42   1.765
               .25   1.466 |   1.33   6.089 |   2.42   3.849 |   3.50   1.693
               .33   1.549 |   1.42   8.350 |   2.50   3.485 |   3.58   1.627
               .42   1.643 |   1.50  13.259 |   2.58   3.187 |   3.67   1.567
               .50   1.750 |   1.58  29.925 |   2.67   2.939 |   3.75   1.511
               .58   1.875 |   1.67  75.600 |   2.75   2.729 |   3.83   1.460
               .67   2.020 |   1.75  27.475 |   2.83   2.549 |   3.92   1.412
               .75   2.193 |   1.83  15.856 |   2.92   2.392 |   4.00   1.368
               .83   2.401 |   1.92  10.977 |   3.00   2.256 |   4.08   1.326
               .92   2.657 |   2.00   8.363 |   3.08   2.135 |
              1.00   2.981 |   2.08   6.752 |   3.17   2.027 |
              1.08   3.404 |   2.17   5.667 |   3.25   1.930 |

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001:0003-----------------------------------------------------------------------
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*==========================================================================
=
*         TRIBUTARY AREAS TO THE SOUTH OF STREET C

*==========================================================================
```

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=
----------------------
| CALIB STANDHYD     |   Area    (ha)=   13.62
| 01:201    DT= 2.00 |   Total Imp(%)=   62.00   Dir. Conn.(%)=   56.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       8.44         5.18
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=     520.00        25.00
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=      60.38         8.87
               over (min)        7.50        22.50
     Storage Coeff.  (min)=       7.44 (ii)   21.47 (ii)
     Unit Hyd. Tpeak (min)=       7.50        22.50
     Unit Hyd. peak  (cms)=        .15          .05
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .90          .07          .926 (iii)
     TIME TO PEAK    (hrs)=       1.75         2.08         1.750
     RUNOFF VOLUME    (mm)=      22.83         5.58        15.244
     TOTAL RAINFALL   (mm)=      24.83        24.83        24.833
     RUNOFF COEFFICIENT   =        .92          .22          .614

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  80.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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001:0004----------------------------------------------------------------------
-------
*==============================================================================
=
*         TRIBUTARY AREAS TO THE NORTH OF STREET C

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    2.58
| 02:202    DT= 2.00 |   Total Imp(%)=   25.00   Dir. Conn.(%)=   22.50
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .64         1.93
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=        .80         2.00
     Length            (m)=     331.00        25.00
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=      60.38         7.24
               over (min)        7.50        22.50
```

```
     Storage Coeff.  (min)=       7.47 (ii)   22.69 (ii)
     Unit Hyd. Tpeak (min)=       7.50        22.50
     Unit Hyd. peak  (cms)=        .15          .05
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .07          .02          .075 (iii)
     TIME TO PEAK    (hrs)=       1.75         2.08         1.750
     RUNOFF VOLUME    (mm)=      22.83         5.15         9.127
     TOTAL RAINFALL   (mm)=      24.83        24.83        24.833
     RUNOFF COEFFICIENT   =        .92          .21          .368

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  81.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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001:0005--------------------------------------------------------------------------
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*==============================================================================
=
*         TRIBUTARY AREAS TO SWM POND

*==============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    1.13   Curve Number   (CN)=75.00
| 03:203    DT= 2.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .180

     Unit Hyd Qpeak  (cms)=     .240

     PEAK FLOW       (cms)=     .014 (i)
     TIME TO PEAK    (hrs)=    1.875
     RUNOFF VOLUME    (mm)=    3.764
     TOTAL RAINFALL   (mm)=   24.833
     RUNOFF COEFFICIENT   =     .152

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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001:0006--------------------------------------------------------------------------
-------
------------------------
| ADD HYD (         9) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)
(cms)
                      ID1 01:201           13.62     .926    1.75  15.24
.000
                     +ID2 02:202            2.58     .075    1.75   9.13
.000
```

```
                    +ID3 03:203            1.13     .014    1.88   3.76
.000

============================================================
                     SUM 04:         9    17.33    1.011    1.75  13.58
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

------------------------------------------------------------------------------
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001:0007--------------------------------------------------------------------
-------
*==============================================================================
=
*ROUTE RUNOFF THROUGH PROPOSED POND

*==============================================================================
=
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.0 min.
|  IN>04:(000009)   |
| OUT<05:(000204)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |     .026  .1010E+01
                            .026  .3121E-01   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000009)      17.33     1.011     1.750     13.585
     OUTFLOW<05: (000204)      17.33      .026     1.667     13.585
    OVERFLOW<06: (000205)        .00      .000      .000       .000

                  TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                  CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                  PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=    2.572
                  TIME SHIFT OF PEAK FLOW         (min)=    -5.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=.2068E+00

------------------------------------------------------------------------------
-------
001:0008--------------------------------------------------------------------
-------
*==============================================================================
=
  ** END OF RUN :   1

*******************************************************************************
*
```

```
--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 002
    NSTORM=   1
           #  1=2YR.HYT
--------------------------------------------------------------------------------
-------
002:0002-----------------------------------------------------------------------
-------
*#**************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#**************************************************************************
**
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-------
002:0002-----------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 2YR Chicago 3-hr duration
| Ptotal=  32.95 mm|    Comments: 2YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   2.366 |    .92   7.556 |   1.75   8.343 |   2.58   3.173
               .17   2.528 |   1.00   9.957 |   1.83   7.120 |   2.67   2.999
               .25   2.716 |   1.08  14.640 |   1.92   6.218 |   2.75   2.844
               .33   2.938 |   1.17  27.128 |   2.00   5.527 |   2.83   2.706
               .42   3.203 |   1.25 106.663 |   2.08   4.980 |   2.92   2.581
               .50   3.527 |   1.33  54.508 |   2.17   4.537 |   3.00   2.469
               .58   3.931 |   1.42  26.925 |   2.25   4.170 |   3.08   2.366
               .67   4.449 |   1.50  17.418 |   2.33   3.862 |
               .75   5.140 |   1.58  12.788 |   2.42   3.599 |
               .83   6.108 |   1.67  10.093 |   2.50   3.372 |
```

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-------------------------------------------------------------------------------
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002:0003-------------------------------------------------------------------------
-------
*===============================================================================
=
*         TRIBUTARY AREAS TO THE SOUTH OF STREET C

*===============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=   13.62
| 01:201    DT= 2.00 |   Total Imp(%)=   62.00   Dir. Conn.(%)=   56.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       8.44         5.18
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=     520.00        25.00
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     106.66        22.34
               over (min)        5.00        15.00
     Storage Coeff.  (min)=       5.93 (ii)   15.62 (ii)
     Unit Hyd. Tpeak (min)=       5.00        15.00
     Unit Hyd. peak  (cms)=        .20          .07
                                                          *TOTALS*
     PEAK FLOW       (cms)=       1.43          .18          1.479 (iii)
     TIME TO PEAK    (hrs)=       1.29         1.54          1.292
     RUNOFF VOLUME    (mm)=      30.95         9.82         21.656
     TOTAL RAINFALL   (mm)=      32.95        32.95         32.954
     RUNOFF COEFFICIENT   =        .94          .30           .657

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  80.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
-------
002:0004-------------------------------------------------------------------------
-------
*===============================================================================
=
*         TRIBUTARY AREAS TO THE NORTH OF STREET C

*===============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    2.58
| 02:202    DT= 2.00 |   Total Imp(%)=   25.00   Dir. Conn.(%)=   22.50
```

```
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .64          1.93
     Dep. Storage     (mm)=       2.00          5.00
     Average Slope     (%)=        .80          2.00
     Length            (m)=     331.00         25.00
     Mannings n           =       .015          .250

     Max.eff.Inten.(mm/hr)=     106.66         16.99
               over (min)         5.00         17.50
     Storage Coeff.  (min)=       5.95 (ii)    16.76 (ii)
     Unit Hyd. Tpeak (min)=       5.00         17.50
     Unit Hyd. peak  (cms)=        .20           .07
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .11           .05          .120 (iii)
     TIME TO PEAK    (hrs)=       1.29          1.58         1.292
     RUNOFF VOLUME    (mm)=      30.95          9.22        14.107
     TOTAL RAINFALL   (mm)=      32.95         32.95        32.954
     RUNOFF COEFFICIENT   =        .94           .28          .428

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  81.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------
002:0005---------------------------------------------------------------------
-------
*==============================================================================
=
*         TRIBUTARY AREAS TO SWM POND

*==============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    1.13   Curve Number   (CN)=75.00
| 03:203    DT= 2.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .180

     Unit Hyd Qpeak  (cms)=     .240

     PEAK FLOW       (cms)=     .029 (i)
     TIME TO PEAK    (hrs)=    1.500
     RUNOFF VOLUME    (mm)=    6.938
     TOTAL RAINFALL   (mm)=   32.954
     RUNOFF COEFFICIENT   =     .211

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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002:0006------------------------------------------------------------------------
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------------------------
| ADD HYD (         9) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)
(cms)
                      ID1 01:201           13.62    1.479    1.29  21.66
.000
                     +ID2 02:202            2.58     .120    1.29  14.11
.000
                     +ID3 03:203            1.13     .029    1.50   6.94
.000

============================================================
                      SUM 04:         9    17.33    1.610    1.29  19.57
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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002:0007------------------------------------------------------------------------
-------
*==============================================================================
=
*ROUTE RUNOFF THROUGH PROPOSED POND

*==============================================================================
=
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.0 min.
|  IN>04:(000009)   |
| OUT<05:(000204)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .026  .1010E+01
                           .026  .3121E-01   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     -------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000009)      17.33     1.610     1.292     19.573
     OUTFLOW<05: (000204)      17.33      .026     1.208     19.573
    OVERFLOW<06: (000205)        .00      .000      .000       .000

                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    1.615
                    TIME SHIFT OF PEAK FLOW         (min)=    -5.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.3152E+00
```

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002:0008--------------------------------------------------------------------
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*==============================================================================
=
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002:0002--------------------------------------------------------------------
-------
  ** END OF RUN :   4

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*




--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 005
    NSTORM=   1
           #  1=5YR.HYT
------------------------------------------------------------------------------
-------
005:0002--------------------------------------------------------------------
-------
*#*****************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#*****************************************************************************
**
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005:0002--------------------------------------------------------------------
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--------------------
| READ STORM       |    Filename: 5YR Chicago 3-hr duration
```

| Ptotal= 44.47 mm| Comments: 5YR Chicago 3-hr duration

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
.08	2.889	.92	10.155	1.75	11.292	2.58	3.967
.17	3.102	1.00	13.656	1.83	9.520	2.67	3.731
.25	3.352	1.08	20.548	1.92	8.224	2.75	3.523
.33	3.649	1.17	38.765	2.00	7.239	2.83	3.338
.42	4.007	1.25	141.200	2.08	6.466	2.92	3.173
.50	4.447	1.33	76.415	2.17	5.844	3.00	3.024
.58	5.002	1.42	38.412	2.25	5.333	3.08	2.889
.67	5.722	1.50	24.610	2.33	4.907		
.75	6.693	1.58	17.806	2.42	4.545		
.83	8.068	1.67	13.848	2.50	4.235		

005:0003

*=========

* TRIBUTARY AREAS TO THE SOUTH OF STREET C

*=========

CALIB STANDHYD 01:201 DT= 2.00	Area (ha)= 13.62	Total Imp(%)= 62.00	Dir. Conn.(%)= 56.00

		IMPERVIOUS	PERVIOUS (i)	
Surface Area	(ha)=	8.44	5.18	
Dep. Storage	(mm)=	2.00	5.00	
Average Slope	(%)=	2.00	2.00	
Length	(m)=	520.00	25.00	
Mannings n	=	.015	.250	
Max.eff.Inten.	(mm/hr)=	141.20	43.39	
over	(min)	5.00	12.50	
Storage Coeff.	(min)=	5.30 (ii)	12.73 (ii)	
Unit Hyd. Tpeak	(min)=	5.00	12.50	
Unit Hyd. peak	(cms)=	.22	.09	
				TOTALS
PEAK FLOW	(cms)=	2.01	.37	2.149 (iii)
TIME TO PEAK	(hrs)=	1.29	1.50	1.292
RUNOFF VOLUME	(mm)=	42.47	16.97	31.248
TOTAL RAINFALL	(mm)=	44.47	44.47	44.466
RUNOFF COEFFICIENT	=	.96	.38	.703

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 80.0 Ia = Dep. Storage (Above)

(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.

(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------------------------------------------------------------------
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005:0004---------------------------------------------------------------------
-------
*=============================================================================
=
*         TRIBUTARY AREAS TO THE NORTH OF STREET C

*=============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    2.58
| 02:202    DT= 2.00 |   Total Imp(%)=   25.00   Dir. Conn.(%)=   22.50
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .64          1.93
     Dep. Storage     (mm)=       2.00          5.00
     Average Slope     (%)=        .80          2.00
     Length            (m)=     331.00         25.00
     Mannings n           =       .015          .250

     Max.eff.Inten.(mm/hr)=     141.20         36.59
               over (min)         5.00         12.50
     Storage Coeff.  (min)=       5.32 (ii)    13.28 (ii)
     Unit Hyd. Tpeak (min)=       5.00         12.50
     Unit Hyd. peak  (cms)=        .21           .09
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .15           .11           .214 (iii)
     TIME TO PEAK    (hrs)=       1.29          1.50          1.375
     RUNOFF VOLUME    (mm)=      42.47         16.14         22.065
     TOTAL RAINFALL   (mm)=      44.47         44.47         44.466
     RUNOFF COEFFICIENT   =        .96           .36           .496

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  81.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
-------
005:0005---------------------------------------------------------------------
-------
*=============================================================================
=
*         TRIBUTARY AREAS TO SWM POND

*=============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    1.13   Curve Number   (CN)=75.00
| 03:203    DT= 2.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
```

```
----------------------   U.H. Tp(hrs)=    .180

     Unit Hyd Qpeak  (cms)=     .240

     PEAK FLOW       (cms)=     .054 (i)
     TIME TO PEAK    (hrs)=    1.500
     RUNOFF VOLUME    (mm)=   12.548
     TOTAL RAINFALL   (mm)=   44.466
     RUNOFF COEFFICIENT   =     .282

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------
005:0006---------------------------------------------------------------------
-------
-------------------------
| ADD HYD (         9) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)
(cms)
                      ID1 01:201           13.62    2.149    1.29  31.25
.000
                     +ID2 02:202            2.58     .214    1.38  22.06
.000
                     +ID3 03:203            1.13     .054    1.50  12.55
.000

============================================================
                      SUM 04:         9    17.33    2.369    1.29  28.66
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

------------------------------------------------------------------------------
-------
005:0007---------------------------------------------------------------------
-------
*==============================================================================
=
*ROUTE RUNOFF THROUGH PROPOSED POND

*==============================================================================
=
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.0 min.
|  IN>04:(000009)   |
| OUT<05:(000204)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |     .026  .1010E+01
                            .026  .3121E-01   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
```

```
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000009)      17.33     2.369     1.292     28.661
     OUTFLOW<05: (000204)      17.33      .026     1.125     28.661
    OVERFLOW<06: (000205)        .00      .000      .000       .000

                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    1.098
                    TIME SHIFT OF PEAK FLOW         (min)=   -10.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.4720E+00

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005:0008--------------------------------------------------------------------------
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*==============================================================================
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-------
005:0002--------------------------------------------------------------------------
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005:0002--------------------------------------------------------------------------
-------
  ** END OF RUN :   9

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*




--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 010
    NSTORM=   1
           #  1=10YR.HYT
--------------------------------------------------------------------------------
-------
010:0002--------------------------------------------------------------------------
-------
*#*****************************************************************************
**
```

```
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#**************************************************************************
**
--------------------------------------------------------------------------
-------
010:0002-----------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 10YR Chicago 3-hr duration
| Ptotal=  52.37 mm|    Comments: 10YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   3.141 |    .92  11.986 |   1.75  13.417 |   2.58   4.407
               .17   3.389 |   1.00  16.365 |   1.83  11.203 |   2.67   4.128
               .25   3.681 |   1.08  25.006 |   1.92   9.593 |   2.75   3.882
               .33   4.030 |   1.17  47.536 |   2.00   8.375 |   2.83   3.665
               .42   4.454 |   1.25 162.500 |   2.08   7.426 |   2.92   3.472
               .50   4.979 |   1.33  92.425 |   2.17   6.667 |   3.00   3.298
               .58   5.645 |   1.42  47.240 |   2.25   6.047 |   3.08   3.141
               .67   6.517 |   1.50  30.137 |   2.33   5.531 |
               .75   7.701 |   1.58  21.600 |   2.42   5.097 |
               .83   9.394 |   1.67  16.623 |   2.50   4.727 |

--------------------------------------------------------------------------
-------
010:0003-----------------------------------------------------------------
-------
*==========================================================================
=
*         TRIBUTARY AREAS TO THE SOUTH OF STREET C

*==========================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=   13.62
| 01:201    DT= 2.00 |   Total Imp(%)=   62.00   Dir. Conn.(%)=   56.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       8.44         5.18
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=     520.00        25.00
     Mannings n           =       .015         .250
```

```
     Max.eff.Inten.(mm/hr)=     162.50        58.24
               over (min)        5.00        12.50
     Storage Coeff.  (min)=       5.01 (ii)   11.62 (ii)
     Unit Hyd. Tpeak (min)=       5.00        12.50
     Unit Hyd. peak  (cms)=        .22          .09
                                                        *TOTALS*
     PEAK FLOW       (cms)=       2.39          .52          2.599 (iii)
     TIME TO PEAK    (hrs)=       1.29         1.46          1.292
     RUNOFF VOLUME    (mm)=      50.37        22.44         38.080
     TOTAL RAINFALL   (mm)=      52.37        52.37         52.369
     RUNOFF COEFFICIENT   =        .96          .43           .727

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  80.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------
010:0004----------------------------------------------------------------------
-------
*==============================================================================
=
*         TRIBUTARY AREAS TO THE NORTH OF STREET C

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    2.58
| 02:202    DT= 2.00 |   Total Imp(%)=   25.00   Dir. Conn.(%)=   22.50
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .64          1.93
     Dep. Storage     (mm)=       2.00          5.00
     Average Slope     (%)=        .80          2.00
     Length            (m)=     331.00         25.00
     Mannings n           =       .015          .250

     Max.eff.Inten.(mm/hr)=     162.50        49.50
               over (min)        5.00        12.50
     Storage Coeff.  (min)=       5.03 (ii)   12.08 (ii)
     Unit Hyd. Tpeak (min)=       5.00        12.50
     Unit Hyd. peak  (cms)=        .22          .09
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .18          .16           .279 (iii)
     TIME TO PEAK    (hrs)=       1.29         1.50          1.375
     RUNOFF VOLUME    (mm)=      50.37        21.48         27.978
     TOTAL RAINFALL   (mm)=      52.37        52.37         52.369
     RUNOFF COEFFICIENT   =        .96          .41           .534

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
```

```
           CN* =  81.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

---------------------------------------------------------------------------
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010:0005-----------------------------------------------------------------------
-------
*===========================================================================
=
*         TRIBUTARY AREAS TO SWM POND

*===========================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    1.13   Curve Number   (CN)=75.00
| 03:203    DT= 2.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .180

     Unit Hyd Qpeak  (cms)=     .240

     PEAK FLOW       (cms)=     .076 (i)
     TIME TO PEAK    (hrs)=    1.500
     RUNOFF VOLUME    (mm)=   16.994
     TOTAL RAINFALL   (mm)=   52.369
     RUNOFF COEFFICIENT   =     .325

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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010:0006-----------------------------------------------------------------------
-------
------------------------
| ADD HYD (         9) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)
(cms)
                      ID1 01:201          13.62    2.599    1.29  38.08
.000
                     +ID2 02:202           2.58     .279    1.38  27.98
.000
                     +ID3 03:203           1.13     .076    1.50  16.99
.000

============================================================
                      SUM 04:         9    17.33    2.880    1.29  35.20
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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```

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010:0007-------------------------------------------------------------------
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*===============================================================================
=
*ROUTE RUNOFF THROUGH PROPOSED POND

*===============================================================================
=
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.0 min.
|  IN>04:(000009)   |
| OUT<05:(000204)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .026  .1010E+01
                           .026  .3121E-01   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000009)      17.33     2.880     1.292     35.201
     OUTFLOW<05: (000204)      17.33      .026     1.083     35.201
    OVERFLOW<06: (000205)        .00      .000      .000       .000

                  TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                  CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                  PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=     .903
                  TIME SHIFT OF PEAK FLOW         (min)=   -12.50
                  MAXIMUM  STORAGE   USED       (ha.m.)=.5849E+00

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010:0008-------------------------------------------------------------------
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*===============================================================================
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010:0002-------------------------------------------------------------------
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010:0002-------------------------------------------------------------------
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010:0002-------------------------------------------------------------------
-------
  ** END OF RUN :  24

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```

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*
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--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\
--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 025
    NSTORM=   1
           #  1=25YR.HYT
--------------------------------------------------------------------------------
-------
025:0002-------------------------------------------------------------------------
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*#**************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#**************************************************************************
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025:0002-------------------------------------------------------------------------
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--------------------
| READ STORM       |    Filename: 25YR Chicago 3-hr duration
| Ptotal=  61.85 mm|    Comments: 25YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   3.490 |    .92  14.107 |   1.75  15.861 |   2.58   4.972
               .17   3.779 |   1.00  19.457 |   1.83  13.158 |   2.67   4.644
               .25   4.120 |   1.08  30.035 |   1.92  11.200 |   2.75   4.356
               .33   4.529 |   1.17  57.437 |   2.00   9.725 |   2.83   4.101
               .42   5.028 |   1.25 190.801 |   2.08   8.578 |   2.92   3.875
               .50   5.649 |   1.33 111.064 |   2.17   7.665 |   3.00   3.672
               .58   6.442 |   1.42  57.174 |   2.25   6.922 |   3.08   3.490
               .67   7.484 |   1.50  36.348 |   2.33   6.307 |
               .75   8.908 |   1.58  25.889 |   2.42   5.790 |
```

```
              .83  10.956 |   1.67  19.786 |   2.50   5.351 |

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025:0003---------------------------------------------------------------------
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*=============================================================================
=
*         TRIBUTARY AREAS TO THE SOUTH OF STREET C

*=============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=   13.62
| 01:201    DT= 2.00 |   Total Imp(%)=   62.00   Dir. Conn.(%)=   56.00
----------------------
                            IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       8.44         5.18
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=     520.00        25.00
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     190.80        86.57
               over (min)        5.00        10.00
     Storage Coeff.  (min)=       4.70 (ii)   10.34 (ii)
     Unit Hyd. Tpeak (min)=       5.00        10.00
     Unit Hyd. peak  (cms)=        .23          .11
                                                        *TOTALS*
     PEAK FLOW       (cms)=       2.88          .75          3.285 (iii)
     TIME TO PEAK    (hrs)=       1.29         1.42          1.292
     RUNOFF VOLUME    (mm)=      59.85        29.45         46.472
     TOTAL RAINFALL   (mm)=      61.85        61.85         61.846
     RUNOFF COEFFICIENT   =        .97          .48           .751

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  80.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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025:0004---------------------------------------------------------------------
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*=============================================================================
=
*         TRIBUTARY AREAS TO THE NORTH OF STREET C

*=============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    2.58
```

```
| 02:202    DT= 2.00 |   Total Imp(%)=   25.00   Dir. Conn.(%)=   22.50
----------------------
                            IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .64          1.93
     Dep. Storage     (mm)=       2.00          5.00
     Average Slope     (%)=        .80          2.00
     Length            (m)=     331.00         25.00
     Mannings n           =       .015          .250

     Max.eff.Inten.(mm/hr)=     190.80         73.98
               over (min)         5.00         10.00
     Storage Coeff.  (min)=       4.71 (ii)    10.72 (ii)
     Unit Hyd. Tpeak (min)=       5.00         10.00
     Unit Hyd. peak  (cms)=        .23           .11
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .22           .24           .399 (iii)
     TIME TO PEAK    (hrs)=       1.29          1.46          1.375
     RUNOFF VOLUME    (mm)=      59.85         28.34         35.430
     TOTAL RAINFALL   (mm)=      61.85         61.85         61.846
     RUNOFF COEFFICIENT   =        .97           .46           .573

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  81.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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025:0005-------------------------------------------------------------------------
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*==============================================================================
=
*         TRIBUTARY AREAS TO SWM POND

*==============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    1.13   Curve Number   (CN)=75.00
| 03:203    DT= 2.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .180

     Unit Hyd Qpeak  (cms)=     .240

     PEAK FLOW       (cms)=     .104 (i)
     TIME TO PEAK    (hrs)=    1.458
     RUNOFF VOLUME    (mm)=   22.835
     TOTAL RAINFALL   (mm)=   61.846
     RUNOFF COEFFICIENT   =     .369

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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025:0006-------------------------------------------------------------------
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------------------------
| ADD HYD (         9) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)
(cms)
                      ID1 01:201           13.62    3.285    1.29  46.47
.000
                     +ID2 02:202            2.58     .399    1.38  35.43
.000
                     +ID3 03:203            1.13     .104    1.46  22.83
.000

============================================================
                      SUM 04:         9    17.33    3.705    1.33  43.29
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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025:0007-------------------------------------------------------------------
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*=========================================================================
=
*ROUTE RUNOFF THROUGH PROPOSED POND

*=========================================================================
=
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.0 min.
|  IN>04:(000009)   |
| OUT<05:(000204)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |     .026  .1010E+01
                            .026  .3121E-01   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000009)      17.33     3.705     1.333     43.287
     OUTFLOW<05: (000204)      17.33      .026     1.000     43.287
    OVERFLOW<06: (000205)        .00      .000      .000       .000

                  TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                  CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                  PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=     .702
                  TIME SHIFT OF PEAK FLOW         (min)=   -20.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=.7248E+00
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025:0008--------------------------------------------------------------------------
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*=============================================================================
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025:0002--------------------------------------------------------------------------
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025:0002--------------------------------------------------------------------------
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025:0002--------------------------------------------------------------------------
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025:0002--------------------------------------------------------------------------
-------
  ** END OF RUN :  49

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--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 050
    NSTORM=   1
           #  1=50YR.HYT
--------------------------------------------------------------------------------
-------
050:0002--------------------------------------------------------------------------
-------
*#****************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]
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*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#**************************************************************************
**
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050:0002--------------------------------------------------------------------
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--------------------
| READ STORM       |    Filename: 50YR Chicago 3-hr duration
| Ptotal=  69.13 mm|    Comments: 50YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   3.895 |    .92  15.824 |   1.75  17.797 |   2.58   5.558
               .17   4.219 |   1.00  21.837 |   1.83  14.758 |   2.67   5.189
               .25   4.601 |   1.08  33.713 |   1.92  12.556 |   2.75   4.866
               .33   5.060 |   1.17  64.387 |   2.00  10.897 |   2.83   4.580
               .42   5.620 |   1.25 212.001 |   2.08   9.609 |   2.92   4.326
               .50   6.318 |   1.33 124.085 |   2.17   8.582 |   3.00   4.100
               .58   7.208 |   1.42  64.104 |   2.25   7.747 |   3.08   3.895
               .67   8.379 |   1.50  40.797 |   2.33   7.057 |
               .75   9.980 |   1.58  29.062 |   2.42   6.476 |
               .83  12.281 |   1.67  22.208 |   2.50   5.983 |

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050:0003--------------------------------------------------------------------
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*==========================================================================
=
*         TRIBUTARY AREAS TO THE SOUTH OF STREET C

*==========================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=   13.62
| 01:201    DT= 2.00 |   Total Imp(%)=   62.00   Dir. Conn.(%)=   56.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       8.44         5.18
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=     520.00        25.00
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     212.00       103.72
               over (min)         5.00        10.00
     Storage Coeff.  (min)=       4.50 (ii)    9.75 (ii)
     Unit Hyd. Tpeak (min)=       5.00        10.00
```

```
     Unit Hyd. peak  (cms)=        .24          .11
                                                          *TOTALS*
     PEAK FLOW       (cms)=       3.25          .93          3.764 (iii)
     TIME TO PEAK    (hrs)=       1.29         1.42          1.292
     RUNOFF VOLUME    (mm)=      67.13        35.11         53.039
     TOTAL RAINFALL   (mm)=      69.13        69.13         69.130
     RUNOFF COEFFICIENT   =        .97          .51           .767

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  80.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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050:0004--------------------------------------------------------------------------
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*==============================================================================
=
*         TRIBUTARY AREAS TO THE NORTH OF STREET C

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    2.58
| 02:202    DT= 2.00 |   Total Imp(%)=   25.00   Dir. Conn.(%)=   22.50
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .64         1.93
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=        .80         2.00
     Length            (m)=     331.00        25.00
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     212.00        89.01
               over (min)         5.00        10.00
     Storage Coeff.  (min)=       4.52 (ii)   10.10 (ii)
     Unit Hyd. Tpeak (min)=       5.00        10.00
     Unit Hyd. peak  (cms)=        .24          .11
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .25          .29           .476 (iii)
     TIME TO PEAK    (hrs)=       1.29         1.42          1.375
     RUNOFF VOLUME    (mm)=      67.13        33.89         41.372
     TOTAL RAINFALL   (mm)=      69.13        69.13         69.130
     RUNOFF COEFFICIENT   =        .97          .49           .598

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  81.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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050:0005---------------------------------------------------------------------
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*=============================================================================
=
*         TRIBUTARY AREAS TO SWM POND

*=============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    1.13   Curve Number   (CN)=75.00
| 03:203    DT= 2.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .180

     Unit Hyd Qpeak  (cms)=     .240

     PEAK FLOW       (cms)=     .127 (i)
     TIME TO PEAK    (hrs)=    1.458
     RUNOFF VOLUME    (mm)=   27.639
     TOTAL RAINFALL   (mm)=   69.130
     RUNOFF COEFFICIENT   =     .400

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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050:0006---------------------------------------------------------------------
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-------------------------
| ADD HYD (         9) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-------------------------                  (ha)     (cms)   (hrs)   (mm)
(cms)
                      ID1 01:201           13.62    3.764    1.29  53.04
.000
                     +ID2 02:202            2.58     .476    1.38  41.37
.000
                     +ID3 03:203            1.13     .127    1.46  27.64
.000

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                      SUM 04:         9    17.33    4.270    1.33  49.65
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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050:0007---------------------------------------------------------------------
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*=============================================================================
=
*ROUTE RUNOFF THROUGH PROPOSED POND
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*=========================================================================
=
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.0 min.
|  IN>04:(000009)   |
| OUT<05:(000204)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |     .026  .1010E+01
                            .026  .3121E-01   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000009)      17.33     4.270     1.333     49.646
     OUTFLOW<05: (000204)      17.33      .026      .958     49.646
    OVERFLOW<06: (000205)        .00      .000      .000       .000

                   TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                   CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                   PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=     .609
                   TIME SHIFT OF PEAK FLOW         (min)=   -22.50
                   MAXIMUM  STORAGE   USED       (ha.m.)=.8345E+00

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050:0008---------------------------------------------------------------
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050:0002---------------------------------------------------------------
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050:0002---------------------------------------------------------------
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050:0002---------------------------------------------------------------
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050:0002---------------------------------------------------------------
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050:0002---------------------------------------------------------------
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  ** END OF RUN :  99

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--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 100
    NSTORM=   1
           #  1=100YR.HYT
-------------------------------------------------------------------------
-------
100:0002-----------------------------------------------------------------
-------
*#*************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#*************************************************************************
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100:0002-----------------------------------------------------------------
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--------------------
| READ STORM       |    Filename: 100YR Chicago 3-hr duration
| Ptotal=  76.27 mm|    Comments: 100YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   4.164 |    .92  17.483 |   1.75  19.709 |   2.58   5.997
               .17   4.519 |   1.00  24.251 |   1.83  16.288 |   2.67   5.589
               .25   4.940 |   1.08  37.617 |   1.92  13.813 |   2.75   5.232
               .33   5.447 |   1.17  71.935 |   2.00  11.952 |   2.83   4.917
               .42   6.066 |   1.25 232.200 |   2.08  10.509 |   2.92   4.638
               .50   6.839 |   1.33 137.906 |   2.17   9.361 |   3.00   4.388
```

```
               .58   7.828 |   1.42  71.694 |   2.25   8.430 |   3.08   4.164
               .67   9.133 |   1.50  45.604 |   2.33   7.661 |
               .75  10.922 |   1.58  32.403 |   2.42   7.015 |
               .83  13.502 |   1.67  24.679 |   2.50   6.467 |

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100:0003--------------------------------------------------------------------------
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*==============================================================================
=
*         TRIBUTARY AREAS TO THE SOUTH OF STREET C

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=   13.62
| 01:201    DT= 2.00 |   Total Imp(%)=   62.00   Dir. Conn.(%)=   56.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       8.44         5.18
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=     520.00        25.00
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     232.20       121.28
               over (min)         5.00        10.00
     Storage Coeff.  (min)=       4.34 (ii)    9.27 (ii)
     Unit Hyd. Tpeak (min)=       5.00        10.00
     Unit Hyd. peak  (cms)=        .24          .12
                                                        *TOTALS*
     PEAK FLOW       (cms)=       3.61         1.11          4.245 (iii)
     TIME TO PEAK    (hrs)=       1.29         1.42          1.292
     RUNOFF VOLUME    (mm)=      74.27        40.83         59.559
     TOTAL RAINFALL   (mm)=      76.27        76.27         76.272
     RUNOFF COEFFICIENT   =        .97          .54           .781

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  80.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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100:0004--------------------------------------------------------------------------
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*==============================================================================
=
*         TRIBUTARY AREAS TO THE NORTH OF STREET C

*==============================================================================
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=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    2.58
| 02:202    DT= 2.00 |   Total Imp(%)=   25.00   Dir. Conn.(%)=   22.50
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .64         1.93
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=        .80         2.00
     Length            (m)=     331.00        25.00
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     232.20       104.43
               over (min)        5.00        10.00
     Storage Coeff.  (min)=       4.36 (ii)    9.59 (ii)
     Unit Hyd. Tpeak (min)=       5.00        10.00
     Unit Hyd. peak  (cms)=        .24          .12
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .27          .35          .556 (iii)
     TIME TO PEAK    (hrs)=       1.29         1.42         1.375
     RUNOFF VOLUME    (mm)=      74.27        39.53        47.345
     TOTAL RAINFALL   (mm)=      76.27        76.27        76.272
     RUNOFF COEFFICIENT   =        .97          .52          .621

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  81.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------
100:0005---------------------------------------------------------------------
-------
*==============================================================================
=
*         TRIBUTARY AREAS TO SWM POND

*==============================================================================
=
----------------------
| CALIB NASHYD       |   Area    (ha)=    1.13   Curve Number   (CN)=75.00
| 03:203    DT= 2.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .180

     Unit Hyd Qpeak  (cms)=     .240

     PEAK FLOW       (cms)=     .151 (i)
     TIME TO PEAK    (hrs)=    1.458
     RUNOFF VOLUME    (mm)=   32.575
     TOTAL RAINFALL   (mm)=   76.272
     RUNOFF COEFFICIENT   =     .427
```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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100:0006--------------------------------------------------------------------------
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------------------------
| ADD HYD (         9) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)
(cms)
                      ID1 01:201           13.62    4.245    1.29  59.56
.000
                     +ID2 02:202            2.58     .556    1.38  47.35
.000
                     +ID3 03:203            1.13     .151    1.46  32.57
.000

============================================================
                      SUM 04:         9    17.33    4.850    1.33  55.98
.000
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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100:0007--------------------------------------------------------------------------
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*================================================================================
=
*ROUTE RUNOFF THROUGH PROPOSED POND

*================================================================================
=
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.0 min.
|  IN>04:(000009)   |
| OUT<05:(000204)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .026  .1010E+01
                           .026  .3121E-01   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000009)      17.33     4.850     1.333     55.981
     OUTFLOW<05: (000204)      17.33      .026      .917     55.981
    OVERFLOW<06: (000205)        .00      .000      .000       .000

                  TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                  CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                  PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
```

```
                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=     .536
                    TIME SHIFT OF PEAK FLOW         (min)=   -25.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.9440E+00

--------------------------------------------------------------------------------
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100:0008------------------------------------------------------------------------
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*==============================================================================
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100:0002------------------------------------------------------------------------
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100:0002------------------------------------------------------------------------
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100:0002------------------------------------------------------------------------
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100:0002------------------------------------------------------------------------
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100:0002------------------------------------------------------------------------
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100:0002------------------------------------------------------------------------
-------
      FINISH
--------------------------------------------------------------------------------
-------
********************************************************************************
*******
     WARNINGS / ERRORS / NOTES
     -------------------------
   Simulation ended on 2025-05-27     at 13:13:25
================================================================================
=======
```

```
================================================================================
===

   SSSSS  W   W  M   M  H   H  Y   Y  M   M   OOO        999    999
=========
   S      W W W  MM MM  H   H   Y Y   MM MM  O   O      9   9  9   9
   SSSSS  W W W  M M M  HHHHH    Y    M M M  O   O  ##  9   9  9   9   Ver
4.05
       S   W W   M   M  H   H    Y    M   M  O   O       9999   9999   Sept
2011
   SSSSS   W W   M   M  H   H    Y    M   M   OOO           9      9
=========
                                                        9   9  9   9   #
3053466
        StormWater Management HYdrologic Model           999    999
=========


********************************************************************************
*
 ****************************** SWMHYMO Ver/4.05
******************************
 *********  A single event and continuous hydrologic simulation model
*********
 *********     based on the principles of HYMO and its successors
*********
 *********                 OTTHYMO-83 and OTTHYMO-89.
*********

********************************************************************************
*
 ********* Distributed by:  J.F. Sabourin and Associates Inc.
*********
 *********                  Ottawa,  Ontario: (613) 836-3884
*********
 *********                  Gatineau, Quebec: (819) 243-6858
*********
 *********                  E-Mail: swmhymo@jfsa.Com
*********

********************************************************************************
*


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+
 +++++++++ Licensed user: MTE Consultants Inc.
+++++++++
 +++++++++                Burlington            SERIAL#:3053466
+++++++++

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+
```

```
*******************************************************************************
*
 *********           ++++++ PROGRAM ARRAY DIMENSIONS ++++++
*********
 *********           Maximum value for ID numbers  :     10
*********
 *********           Max. number of rainfall points: 105408
*********
 *********           Max. number of flow points    : 105408
*********

*******************************************************************************
*


 **********************   D E T A I L E D   O U T P U T
**********************

*******************************************************************************
*
 *         DATE: 2025-05-27     TIME: 13:53:47     RUN COUNTER: 000034
*

*******************************************************************************
*
 * Input   filename: Q:\55926\100\202505~1\SWMHYMO\POST_UCN.DAT
*
 * Output  filename: Q:\55926\100\202505~1\SWMHYMO\POST_UCN.out
*
 * Summary filename: Q:\55926\100\202505~1\SWMHYMO\POST_UCN.sum
*
 * User comments:
*
 *
1:_____________________________________________________________________________*
 *
2:_____________________________________________________________________________*
 *
3:_____________________________________________________________________________*

*******************************************************************************
*

--------------------------------------------------------------------------------
-------
001:0001-----------------------------------------------------------------------
-------
*#*****************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]
```

```
*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#**************************************************************************
**
--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 001
    NSTORM=   1
           #  1=25mm.HYT
--------------------------------------------------------------------------------
-------
001:0002-----------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 25mm Chicago 4-hr duration
| Ptotal=  24.83 mm|    Comments: 25mm Chicago 4-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   1.326 |   1.17   3.978 |   2.25   4.889 |   3.33   1.844
               .17   1.392 |   1.25   4.803 |   2.33   4.304 |   3.42   1.765
               .25   1.466 |   1.33   6.089 |   2.42   3.849 |   3.50   1.693
               .33   1.549 |   1.42   8.350 |   2.50   3.485 |   3.58   1.627
               .42   1.643 |   1.50  13.259 |   2.58   3.187 |   3.67   1.567
               .50   1.750 |   1.58  29.925 |   2.67   2.939 |   3.75   1.511
               .58   1.875 |   1.67  75.600 |   2.75   2.729 |   3.83   1.460
               .67   2.020 |   1.75  27.475 |   2.83   2.549 |   3.92   1.412
               .75   2.193 |   1.83  15.856 |   2.92   2.392 |   4.00   1.368
               .83   2.401 |   1.92  10.977 |   3.00   2.256 |   4.08   1.326
               .92   2.657 |   2.00   8.363 |   3.08   2.135 |
              1.00   2.981 |   2.08   6.752 |   3.17   2.027 |
              1.08   3.404 |   2.17   5.667 |   3.25   1.930 |

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-------
001:0003-----------------------------------------------------------------------
-------
*==========================================================================
=
*         TRIBUTARY AREAS TO STREET A SOUTH TO GLENDON DRIVE (UNCONTROLLED)

*==========================================================================
```

```
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 06:301    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=      57.00         5.50
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=      75.60        45.52
               over (min)        2.50         5.00
     Storage Coeff.  (min)=       1.80 (ii)    4.74 (ii)
     Unit Hyd. Tpeak (min)=       2.50         5.00
     Unit Hyd. peak  (cms)=        .51          .23
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .09          .05          .134 (iii)
     TIME TO PEAK    (hrs)=       1.67         1.71         1.667
     RUNOFF VOLUME    (mm)=      22.83        12.62        16.702
     TOTAL RAINFALL   (mm)=      24.83        24.83        24.833
     RUNOFF COEFFICIENT   =        .92          .51          .673
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------
001:0004--------------------------------------------------------------------------
-------
*==============================================================================
=
*         TRIBUTARY AREAS TO ADJACENT PROPERTY TO THE WEST (UNCONTROLLED)

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 07:302    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       1.80         2.00
     Length            (m)=     105.00         5.50
     Mannings n           =       .015         .250
```

```
 *** NOTE: User defined Storage Coefficients were used
           for Unit Hydrograph calculations.
Max.eff.Inten.(mm/hr)=      75.60        45.52
           over (min)        2.50         5.00
Storage Coeff.  (min)=       2.00 (ii)    4.94 (ii)
Unit Hyd. Tpeak (min)=       2.50         5.00
Unit Hyd. peak  (cms)=        .48          .23
                                                    *TOTALS*
PEAK FLOW       (cms)=        .09          .05          .132 (iii)
TIME TO PEAK    (hrs)=       1.67         1.71         1.667
RUNOFF VOLUME    (mm)=      22.83        12.62        16.702
TOTAL RAINFALL   (mm)=      24.83        24.83        24.833
RUNOFF COEFFICIENT   =        .92          .51          .673
 *** WARNING: Storage Coefficient is smaller than DT!
              Use a smaller DT or a larger area.

  (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
      CN* =  95.0    Ia = Dep. Storage  (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
      THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------
001:0005---------------------------------------------------------------------
-------
------------------------
| ADD HYD (       303) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)
(cms)
                     ID1 06:301            1.13     .134    1.67  16.70
.000
                    +ID2 07:302            1.13     .132    1.67  16.70
.000

============================================================
                     SUM 08:       303     2.26     .267    1.67  16.70
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
-------
001:0006---------------------------------------------------------------------
-------
  ** END OF RUN :   1

********************************************************************************
*
```

```
--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 002
    NSTORM=   1
           #  1=2YR.HYT
--------------------------------------------------------------------------------
-------
002:0002-----------------------------------------------------------------------
-------
*#*****************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#*****************************************************************************
**
--------------------------------------------------------------------------------
-------
002:0002-----------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 2YR Chicago 3-hr duration
| Ptotal=  32.95 mm|    Comments: 2YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   2.366 |    .92   7.556 |   1.75   8.343 |   2.58   3.173
               .17   2.528 |   1.00   9.957 |   1.83   7.120 |   2.67   2.999
               .25   2.716 |   1.08  14.640 |   1.92   6.218 |   2.75   2.844
               .33   2.938 |   1.17  27.128 |   2.00   5.527 |   2.83   2.706
               .42   3.203 |   1.25 106.663 |   2.08   4.980 |   2.92   2.581
               .50   3.527 |   1.33  54.508 |   2.17   4.537 |   3.00   2.469
               .58   3.931 |   1.42  26.925 |   2.25   4.170 |   3.08   2.366
               .67   4.449 |   1.50  17.418 |   2.33   3.862 |
               .75   5.140 |   1.58  12.788 |   2.42   3.599 |
               .83   6.108 |   1.67  10.093 |   2.50   3.372 |

--------------------------------------------------------------------------------
-------
002:0003-----------------------------------------------------------------------
```

```
-------
*=========================================================================
=
*         TRIBUTARY AREAS TO STREET A SOUTH TO GLENDON DRIVE (UNCONTROLLED)

*=========================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 06:301    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=      57.00         5.50
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     106.66        71.03
               over (min)        2.50         5.00
     Storage Coeff.  (min)=       1.57 (ii)    4.03 (ii)
     Unit Hyd. Tpeak (min)=       2.50         5.00
     Unit Hyd. peak  (cms)=        .54          .26
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .13          .09          .201 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.29         1.250
     RUNOFF VOLUME    (mm)=      30.95        19.81        24.269
     TOTAL RAINFALL   (mm)=      32.95        32.95        32.954
     RUNOFF COEFFICIENT   =        .94          .60          .736
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------
-------
002:0004----------------------------------------------------------------
-------
*=========================================================================
=
*         TRIBUTARY AREAS TO ADJACENT PROPERTY TO THE WEST (UNCONTROLLED)

*=========================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 07:302    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
```

```
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       1.80         2.00
     Length            (m)=     105.00         5.50
     Mannings n           =       .015         .250

      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
     Max.eff.Inten.(mm/hr)=     106.66        71.03
               over (min)        2.50         5.00
     Storage Coeff.  (min)=       2.00 (ii)    4.46 (ii)
     Unit Hyd. Tpeak (min)=       2.50         5.00
     Unit Hyd. peak  (cms)=        .48          .24
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .13          .09          .193 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.29         1.250
     RUNOFF VOLUME    (mm)=      30.95        19.81        24.269
     TOTAL RAINFALL   (mm)=      32.95        32.95        32.954
     RUNOFF COEFFICIENT   =        .94          .60          .736
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------
002:0005---------------------------------------------------------------------
-------
------------------------
| ADD HYD (       303) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)
(cms)
                     ID1 06:301            1.13     .201    1.25  24.27
.000
                    +ID2 07:302            1.13     .193    1.25  24.27
.000

============================================================
                     SUM 08:       303     2.26     .393    1.25  24.27
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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002:0006---------------------------------------------------------------------
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```

```
002:0002--------------------------------------------------------------------
-------
  ** END OF RUN :   4

*************************************************************************
*




--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 005
    NSTORM=   1
           #  1=5YR.HYT
--------------------------------------------------------------------------
-------
005:0002------------------------------------------------------------------
-------
*#*********************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#*********************************************************************
**
--------------------------------------------------------------------------
-------
005:0002------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 5YR Chicago 3-hr duration
| Ptotal=  44.47 mm|    Comments: 5YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   2.889 |    .92  10.155 |   1.75  11.292 |   2.58   3.967
               .17   3.102 |   1.00  13.656 |   1.83   9.520 |   2.67   3.731
               .25   3.352 |   1.08  20.548 |   1.92   8.224 |   2.75   3.523
               .33   3.649 |   1.17  38.765 |   2.00   7.239 |   2.83   3.338
```

```
               .42   4.007 |   1.25 141.200 |   2.08   6.466 |   2.92   3.173
               .50   4.447 |   1.33  76.415 |   2.17   5.844 |   3.00   3.024
               .58   5.002 |   1.42  38.412 |   2.25   5.333 |   3.08   2.889
               .67   5.722 |   1.50  24.610 |   2.33   4.907 |
               .75   6.693 |   1.58  17.806 |   2.42   4.545 |
               .83   8.068 |   1.67  13.848 |   2.50   4.235 |

--------------------------------------------------------------------------------
-------
005:0003--------------------------------------------------------------------------
-------
*==============================================================================
=
*         TRIBUTARY AREAS TO STREET A SOUTH TO GLENDON DRIVE (UNCONTROLLED)

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 06:301    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                            IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51           .62
     Dep. Storage     (mm)=       2.00          5.00
     Average Slope     (%)=       2.00          2.00
     Length            (m)=      57.00          5.50
     Mannings n           =       .015          .250

     Max.eff.Inten.(mm/hr)=     141.20        122.71
               over (min)         2.50          2.50
     Storage Coeff.  (min)=       1.41 (ii)     3.38 (ii)
     Unit Hyd. Tpeak (min)=       2.50          2.50
     Unit Hyd. peak  (cms)=        .56           .36
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .17           .16           .335 (iii)
     TIME TO PEAK    (hrs)=       1.25          1.25          1.250
     RUNOFF VOLUME    (mm)=      42.47         30.51         35.292
     TOTAL RAINFALL   (mm)=      44.47         44.47         44.466
     RUNOFF COEFFICIENT   =        .96           .69           .794
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------
005:0004--------------------------------------------------------------------------
-------
*==============================================================================
```

```
=
*         TRIBUTARY AREAS TO ADJACENT PROPERTY TO THE WEST (UNCONTROLLED)

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 07:302    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       1.80         2.00
     Length            (m)=     105.00         5.50
     Mannings n           =       .015         .250

      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
     Max.eff.Inten.(mm/hr)=     141.20       112.76
               over (min)        2.50         5.00
     Storage Coeff.  (min)=       2.00 (ii)    4.05 (ii)
     Unit Hyd. Tpeak (min)=       2.50         5.00
     Unit Hyd. peak  (cms)=        .48          .25
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .17          .14          .285 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.29         1.250
     RUNOFF VOLUME    (mm)=      42.47        30.51        35.292
     TOTAL RAINFALL   (mm)=      44.47        44.47        44.466
     RUNOFF COEFFICIENT   =        .96          .69          .794
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
-------
005:0005---------------------------------------------------------------------
-------
------------------------
| ADD HYD (       303) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)
(cms)
                     ID1 06:301            1.13     .335    1.25  35.29
.000
                    +ID2 07:302            1.13     .285    1.25  35.29
.000

============================================================
                     SUM 08:       303     2.26     .620    1.25  35.29
```

```
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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005:0006---------------------------------------------------------------------
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-------------------------------------------------------------------------------
-------
005:0002---------------------------------------------------------------------
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-------------------------------------------------------------------------------
-------
005:0002---------------------------------------------------------------------
-------
  ** END OF RUN :   9

*******************************************************************************
*




--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 010
    NSTORM=   1
           #  1=10YR.HYT
-------------------------------------------------------------------------------
-------
010:0002---------------------------------------------------------------------
-------
*#****************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#****************************************************************************
**
```

```
---------------------------------------------------------------------------
-------
010:0002-----------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 10YR Chicago 3-hr duration
| Ptotal=  52.37 mm|    Comments: 10YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   3.141 |    .92  11.986 |   1.75  13.417 |   2.58   4.407
               .17   3.389 |   1.00  16.365 |   1.83  11.203 |   2.67   4.128
               .25   3.681 |   1.08  25.006 |   1.92   9.593 |   2.75   3.882
               .33   4.030 |   1.17  47.536 |   2.00   8.375 |   2.83   3.665
               .42   4.454 |   1.25 162.500 |   2.08   7.426 |   2.92   3.472
               .50   4.979 |   1.33  92.425 |   2.17   6.667 |   3.00   3.298
               .58   5.645 |   1.42  47.240 |   2.25   6.047 |   3.08   3.141
               .67   6.517 |   1.50  30.137 |   2.33   5.531 |
               .75   7.701 |   1.58  21.600 |   2.42   5.097 |
               .83   9.394 |   1.67  16.623 |   2.50   4.727 |

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-------
010:0003-----------------------------------------------------------------
-------
*===========================================================================
=
*         TRIBUTARY AREAS TO STREET A SOUTH TO GLENDON DRIVE (UNCONTROLLED)

*===========================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 06:301    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=      57.00         5.50
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     162.50       148.58
               over (min)         2.50         2.50
     Storage Coeff.  (min)=       1.33 (ii)    3.16 (ii)
     Unit Hyd. Tpeak (min)=       2.50         2.50
     Unit Hyd. peak  (cms)=        .58          .37
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .20          .20          .405 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.25         1.250
     RUNOFF VOLUME    (mm)=      50.37        38.03        42.967
     TOTAL RAINFALL   (mm)=      52.37        52.37        52.369
     RUNOFF COEFFICIENT   =        .96          .73          .820
```

```
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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010:0004--------------------------------------------------------------------------
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*==============================================================================
=
*         TRIBUTARY AREAS TO ADJACENT PROPERTY TO THE WEST (UNCONTROLLED)

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 07:302    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                            IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       1.80         2.00
     Length            (m)=     105.00         5.50
     Mannings n           =       .015         .250

      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
     Max.eff.Inten.(mm/hr)=     162.50       139.10
               over (min)        2.50         5.00
     Storage Coeff.  (min)=       2.00 (ii)    3.88 (ii)
     Unit Hyd. Tpeak (min)=       2.50         5.00
     Unit Hyd. peak  (cms)=        .48          .26
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .19          .18          .345 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.29         1.250
     RUNOFF VOLUME    (mm)=      50.37        38.03        42.967
     TOTAL RAINFALL   (mm)=      52.37        52.37        52.369
     RUNOFF COEFFICIENT   =        .96          .73          .820
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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```

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010:0005-------------------------------------------------------------------
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------------------------
| ADD HYD (       303) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)
(cms)
                      ID1 06:301            1.13     .405    1.25  42.97
.000
                     +ID2 07:302            1.13     .345    1.25  42.97
.000

============================================================
                      SUM 08:       303     2.26     .750    1.25  42.97
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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010:0006-------------------------------------------------------------------
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010:0002-------------------------------------------------------------------
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010:0002-------------------------------------------------------------------
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-------------------------------------------------------------------------
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010:0002-------------------------------------------------------------------
-------
  ** END OF RUN :  24

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*




--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 025
    NSTORM=   1
           #  1=25YR.HYT
```

```
-------------------------------------------------------------------------------
-------
025:0002---------------------------------------------------------------------
-------
*#*****************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#*****************************************************************************
**
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025:0002---------------------------------------------------------------------
-------
--------------------
| READ STORM       |    Filename: 25YR Chicago 3-hr duration
| Ptotal=  61.85 mm|    Comments: 25YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   3.490 |    .92  14.107 |   1.75  15.861 |   2.58   4.972
               .17   3.779 |   1.00  19.457 |   1.83  13.158 |   2.67   4.644
               .25   4.120 |   1.08  30.035 |   1.92  11.200 |   2.75   4.356
               .33   4.529 |   1.17  57.437 |   2.00   9.725 |   2.83   4.101
               .42   5.028 |   1.25 190.801 |   2.08   8.578 |   2.92   3.875
               .50   5.649 |   1.33 111.064 |   2.17   7.665 |   3.00   3.672
               .58   6.442 |   1.42  57.174 |   2.25   6.922 |   3.08   3.490
               .67   7.484 |   1.50  36.348 |   2.33   6.307 |
               .75   8.908 |   1.58  25.889 |   2.42   5.790 |
               .83  10.956 |   1.67  19.786 |   2.50   5.351 |

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025:0003---------------------------------------------------------------------
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*===============================================================================
=
*         TRIBUTARY AREAS TO STREET A SOUTH TO GLENDON DRIVE (UNCONTROLLED)

*===============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 06:301    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
```

```
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=      57.00         5.50
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     190.80       181.86
               over (min)        2.50         2.50
     Storage Coeff.  (min)=       1.25 (ii)    2.94 (ii)
     Unit Hyd. Tpeak (min)=       2.50         2.50
     Unit Hyd. peak  (cms)=        .59          .39
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .24          .26          .497 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.25         1.250
     RUNOFF VOLUME    (mm)=      59.85        47.17        52.239
     TOTAL RAINFALL   (mm)=      61.85        61.85        61.846
     RUNOFF COEFFICIENT   =        .97          .76          .845
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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025:0004---------------------------------------------------------------------
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*==============================================================================
=
*         TRIBUTARY AREAS TO ADJACENT PROPERTY TO THE WEST (UNCONTROLLED)

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 07:302    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       1.80         2.00
     Length            (m)=     105.00         5.50
     Mannings n           =       .015         .250

      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
     Max.eff.Inten.(mm/hr)=     190.80       181.86
               over (min)        2.50         2.50
     Storage Coeff.  (min)=       2.00 (ii)    3.69 (ii)
```

```
     Unit Hyd. Tpeak (min)=       2.50         2.50
     Unit Hyd. peak  (cms)=        .48          .33
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .23          .24           .466 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.25          1.250
     RUNOFF VOLUME    (mm)=      59.85        47.17         52.239
     TOTAL RAINFALL   (mm)=      61.85        61.85         61.846
     RUNOFF COEFFICIENT   =        .97          .76           .845
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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025:0005--------------------------------------------------------------------------
-------
------------------------
| ADD HYD (       303) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)
(cms)
                      ID1 06:301            1.13     .497    1.25  52.24
.000
                     +ID2 07:302            1.13     .466    1.25  52.24
.000

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                      SUM 08:       303     2.26     .962    1.25  52.24
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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025:0006--------------------------------------------------------------------------
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025:0002--------------------------------------------------------------------------
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025:0002--------------------------------------------------------------------------
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025:0002--------------------------------------------------------------------------
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025:0002-------------------------------------------------------------------
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  ** END OF RUN :  49

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--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 050
    NSTORM=   1
           #  1=50YR.HYT
-------------------------------------------------------------------------------
-------
050:0002-------------------------------------------------------------------
-------
*#*****************************************************************************
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#*****************************************************************************
**
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050:0002-------------------------------------------------------------------
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--------------------
| READ STORM       |    Filename: 50YR Chicago 3-hr duration
| Ptotal=  69.13 mm|    Comments: 50YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   3.895 |    .92  15.824 |   1.75  17.797 |   2.58   5.558
               .17   4.219 |   1.00  21.837 |   1.83  14.758 |   2.67   5.189
               .25   4.601 |   1.08  33.713 |   1.92  12.556 |   2.75   4.866
```

```
              .33   5.060 |   1.17  64.387 |   2.00  10.897 |   2.83   4.580
              .42   5.620 |   1.25 212.001 |   2.08   9.609 |   2.92   4.326
              .50   6.318 |   1.33 124.085 |   2.17   8.582 |   3.00   4.100
              .58   7.208 |   1.42  64.104 |   2.25   7.747 |   3.08   3.895
              .67   8.379 |   1.50  40.797 |   2.33   7.057 |
              .75   9.980 |   1.58  29.062 |   2.42   6.476 |
              .83  12.281 |   1.67  22.208 |   2.50   5.983 |

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050:0003--------------------------------------------------------------------------
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*==============================================================================
=
*         TRIBUTARY AREAS TO STREET A SOUTH TO GLENDON DRIVE (UNCONTROLLED)

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 06:301    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       2.00         2.00
     Length            (m)=      57.00         5.50
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     212.00       206.72
               over (min)        2.50         2.50
     Storage Coeff.  (min)=       1.19 (ii)    2.80 (ii)
     Unit Hyd. Tpeak (min)=       2.50         2.50
     Unit Hyd. peak  (cms)=        .60          .40
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .26          .30           .566 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.25          1.250
     RUNOFF VOLUME    (mm)=      67.13        54.25         59.400
     TOTAL RAINFALL   (mm)=      69.13        69.13         69.130
     RUNOFF COEFFICIENT   =        .97          .78           .859
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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050:0004--------------------------------------------------------------------------
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*==============================================================================
=
*         TRIBUTARY AREAS TO ADJACENT PROPERTY TO THE WEST (UNCONTROLLED)

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 07:302    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       1.80         2.00
     Length            (m)=     105.00         5.50
     Mannings n           =       .015         .250

      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
     Max.eff.Inten.(mm/hr)=     212.00       206.72
                over (min)        2.50         2.50
     Storage Coeff.  (min)=       2.00 (ii)    3.61 (ii)
     Unit Hyd. Tpeak (min)=       2.50         2.50
     Unit Hyd. peak  (cms)=        .48          .34
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .25          .28          .528 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.25         1.250
     RUNOFF VOLUME    (mm)=      67.13        54.25        59.400
     TOTAL RAINFALL   (mm)=      69.13        69.13        69.130
     RUNOFF COEFFICIENT   =        .97          .78          .859
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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050:0005---------------------------------------------------------------------
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------------------------
| ADD HYD (       303) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)
(cms)
                      ID1 06:301            1.13     .566    1.25  59.40
.000
                     +ID2 07:302            1.13     .528    1.25  59.40
.000

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                    SUM 08:       303     2.26    1.094    1.25  59.40
.000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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050:0006--------------------------------------------------------------------
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050:0002--------------------------------------------------------------------
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050:0002--------------------------------------------------------------------
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050:0002--------------------------------------------------------------------
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050:0002--------------------------------------------------------------------
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050:0002--------------------------------------------------------------------
-------
  ** END OF RUN :  99

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*




--------------------
| START            |  Project  dir.: Q:\55926\100\202505~1\SWMHYMO\

--------------------  Rainfall dir.: Q:\55926\100\202505~1\SWMHYMO\

    TZERO =   .00 hrs on        0
    METOUT=   2 (output = METRIC)
    NRUN  = 100
    NSTORM=   1
           #  1=100YR.HYT
------------------------------------------------------------------------------
-------
100:0002--------------------------------------------------------------------
-------
*#*****************************************************************************
```

```
**
*#  Project Name: [GLENDON ROAD]    Project Number: [55926-100]

*#  Date        : OCTOBER 2024

*#  Modeller    : [JJM]

*#  Company     : MTE CONSULTANTS INC.

*#  License #   :

*#**************************************************************************
**
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100:0002--------------------------------------------------------------------------
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--------------------
| READ STORM       |    Filename: 100YR Chicago 3-hr duration
| Ptotal=  76.27 mm|    Comments: 100YR Chicago 3-hr duration
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   4.164 |    .92  17.483 |   1.75  19.709 |   2.58   5.997
               .17   4.519 |   1.00  24.251 |   1.83  16.288 |   2.67   5.589
               .25   4.940 |   1.08  37.617 |   1.92  13.813 |   2.75   5.232
               .33   5.447 |   1.17  71.935 |   2.00  11.952 |   2.83   4.917
               .42   6.066 |   1.25 232.200 |   2.08  10.509 |   2.92   4.638
               .50   6.839 |   1.33 137.906 |   2.17   9.361 |   3.00   4.388
               .58   7.828 |   1.42  71.694 |   2.25   8.430 |   3.08   4.164
               .67   9.133 |   1.50  45.604 |   2.33   7.661 |
               .75  10.922 |   1.58  32.403 |   2.42   7.015 |
               .83  13.502 |   1.67  24.679 |   2.50   6.467 |

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100:0003--------------------------------------------------------------------------
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*==========================================================================
=
*         TRIBUTARY AREAS TO STREET A SOUTH TO GLENDON DRIVE (UNCONTROLLED)

*==========================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 06:301    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51           .62
     Dep. Storage     (mm)=       2.00          5.00
     Average Slope     (%)=       2.00          2.00
     Length            (m)=      57.00          5.50
```

```
     Mannings n           =       .015         .250

     Max.eff.Inten.(mm/hr)=     232.20       230.25
               over (min)        2.50         2.50
     Storage Coeff.  (min)=       1.15 (ii)    2.69 (ii)
     Unit Hyd. Tpeak (min)=       2.50         2.50
     Unit Hyd. peak  (cms)=        .60          .41
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .29          .34           .632 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.25          1.250
     RUNOFF VOLUME    (mm)=      74.27        61.22         66.443
     TOTAL RAINFALL   (mm)=      76.27        76.27         76.272
     RUNOFF COEFFICIENT   =        .97          .80           .871
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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100:0004--------------------------------------------------------------------------
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*==============================================================================
=
*         TRIBUTARY AREAS TO ADJACENT PROPERTY TO THE WEST (UNCONTROLLED)

*==============================================================================
=
----------------------
| CALIB STANDHYD     |   Area    (ha)=    1.13
| 07:302    DT= 2.00 |   Total Imp(%)=   45.00   Dir. Conn.(%)=   40.00
----------------------
                            IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .51          .62
     Dep. Storage     (mm)=       2.00         5.00
     Average Slope     (%)=       1.80         2.00
     Length            (m)=     105.00         5.50
     Mannings n           =       .015         .250

      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
     Max.eff.Inten.(mm/hr)=     232.20       230.25
               over (min)        2.50         2.50
     Storage Coeff.  (min)=       2.00 (ii)    3.54 (ii)
     Unit Hyd. Tpeak (min)=       2.50         2.50
     Unit Hyd. peak  (cms)=        .48          .34
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .27          .31           .589 (iii)
     TIME TO PEAK    (hrs)=       1.25         1.25          1.250
```

```
     RUNOFF VOLUME    (mm)=      74.27        61.22         66.443
     TOTAL RAINFALL   (mm)=      76.27        76.27         76.272
     RUNOFF COEFFICIENT   =        .97          .80           .871
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  95.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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100:0005-------------------------------------------------------------------------
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-------------------------
| ADD HYD (       303) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)
(cms)
                     ID1 06:301            1.13     .632    1.25  66.44
.000
                    +ID2 07:302            1.13     .589    1.25  66.44
.000

============================================================
                     SUM 08:       303     2.26    1.220    1.25  66.44
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   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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100:0006-------------------------------------------------------------------------
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100:0002-------------------------------------------------------------------------
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100:0002----------------------------------------------------------------------
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100:0002----------------------------------------------------------------------
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      FINISH
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******************************************************************************
*******
     WARNINGS / ERRORS / NOTES
     ------------------------
 001:0003 CALIB STANDHYD
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 001:0004 CALIB STANDHYD
      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 002:0003 CALIB STANDHYD
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 002:0004 CALIB STANDHYD
      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 005:0003 CALIB STANDHYD
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 005:0004 CALIB STANDHYD
      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 010:0003 CALIB STANDHYD
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 010:0004 CALIB STANDHYD
      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 025:0003 CALIB STANDHYD
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 025:0004 CALIB STANDHYD
      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
```

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 050:0003 CALIB STANDHYD
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 050:0004 CALIB STANDHYD
      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 100:0003 CALIB STANDHYD
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
 100:0004 CALIB STANDHYD
      *** NOTE: User defined Storage Coefficients were used
                for Unit Hydrograph calculations.
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
   Simulation ended on 2025-05-27     at 13:53:49
================================================================================
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```