FUNCTIONAL SERVICING &

STORMWATER MANAGEMENT REPORT

PROPOSED TEMPORARY TRUCK PARKING –

MOHAWK INN

9230 GUELPH LINE

TOWN OF MILTON

For

1000479776 ONTARIO LIMITED PARTNERSHIP

December 17, 2025

CANDEVCON GROUP INC.
CONSULTING ENGINEERS & PLANNERS
TEL (905) 794-0600 FAX (905) 794-0611

PROJECT NO. W20135

TABLE OF CONTENTS

1 INTRODUCTION 1
1.1 Study Area 1
1.2 Reference Documents 3
2 EXISTING CONDITIONS – BACKGROUND INFORMATION 3
2.1 Topography, Drainage and Natural Features 3
2.2 Removals 4
2.3 Conservation Authority 5
2.4 Geotechnical/Hydrogeological Information 5
2.5 Existing Water Supply 5
2.6 Existing Sanitary Sewage Treatment 6
2.7 Existing Storm Drainage 6
3 PROPOSED DEVELOPMENT PLAN 7
4 PROPOSED SITE SERVICING (WATER AND WASTEWATER) 8
5 STORM DRAINAGE AND STORMWATER MANAGEMENT 8
5.1 Stormwater Management Design Criteria 8
5.2 Pre-development Conditions 9
5.3 Post-Development Conditions 12
5.4 Water Quantity Control 12
5.5 Water Quality 14
6 SEDIMENT AND EROSION CONTROL 14
6.1 Proposed Sediment and Erosion Control Measures 14
6.2 Sediment and Erosion Control Monitoring/Inspection and Maintenance 15
7 SUMMARY AND RECOMMENDATIONS 16

LIST OF FIGURES

FIGURE 1 Site Location Plan – 9230 Guelph Line

FIGURE 2 Surrounding Area and General Conditions (Google Maps aerial)

FIGURE 3 Pre-Development Drainage Conditions

APPENDICES

APPENDIX "A" STORMWATER MANAGEMENT CALCULATIONS

APPENDIX "B" VO-MODEL RESULTS

APPENDIX "C" SITE REPORTS

Limited Phase II Environmental Site Assessment, 9230 Guelph Line, Milton, Ontario, by Golder & Associates, dated February 2013. Report No. 12-112-0241.

**Golder's Phase II ESA report is included with submission materials as per Candevcon submission cover letter.*

APPENDIX "D" PRELIMINARY REFERENCE & DESIGN DRAWINGS

Topographical Plan prepared by David B Searles Surveying Ltd. (file no. 23-3-15), titled, "Sketch Illustrating Topographic Information for Preliminary Design Purposes 9230 Guelph Line Town of Milton" with, field work completed on June 17, 2021.

Preliminary Design Drawings *(Dated December 2025)*

TSLP-1 TRAILER STORAGE LAYOUT PLAN (existing building demolished)

TSLP-1A TRAILER STORAGE LAYOUT PLAN (existing building to remain)

PRD-1 PRE-DEVELOPMENT DRAINAGE PLAN

PD-1 POST-DEVELOPMENT DRAINAGE PLAN

ESC-1 EROSION & SEDIMENT CONTROL PLAN

RM-1 REMOVALS PLAN

SG-1 SERVICING & GRADING PLAN

1 INTRODUCTION

Candevcon Group Inc. has been retained to prepare a Functional Servicing and Stormwater Management Report (FSR) supporting the proposed temporary zoning bylaw for truck parking at the existing Mohawk Inn (established circa 1967) property in the Town of Milton.

The objective of this FSR is to demonstrate how the subject site can be serviced with respect to sanitary drainage, water supply, storm drainage and overall site stormwater management including site grading, all in accordance with Town of Milton, Region of Halton and Conservation Halton engineering design criteria and objectives.

For the proposed land-use for temporary truck/trailer parking, this report is prepared to support a temporary Zoning By-Law Application (ZBA) as outlined in the Town's pre-consultation form with meeting date of March 9, 2025.

1.1 Study Area

The subject site is located at 9230 Guelph Line which is at the north-west corner of Highway 401 and Guelph Line in the Town of Milton, Ontario. The site access is approximately 370 m north of the center of Highway 401.

The location of the subject site is illustrated in **Figure 1** – Site Location Plan (screenshot from Google Maps). The property boundary on the site topographic survey measures approximately 17.1 ha [171,480 m^2]. However, the disturbed area outside the surveyed dripline measures over 4 ha (including approximately 4,123 m^2 of the Guelph Line and MTO rights-of-way).

The site is bounded by the MTO's 401 Highway to the south, a KOA campground to the west (understood to remain as-is), a Petro Canada gas station and Mohawk Racetrack to the north and Guelph Line to the east. The Nassagaweya Tennis Centre is across Guelph Line at the south-east corner of Guelph Line and Campbellville Road.

The site is currently occupied by the existing Mohawk Inn, a garage, a shed, a gravel parking lot and associated asphalt driveway, and remnants of various utilities such as septic beds, light poles, and what appears to be a decommissioned gas service at the

smaller building. The topographical survey depicts a trailer approximately in between the two buildings onsite, however it was not present during the October 22, 2025, site visit.

A legal description on the topographical survey of the site includes:

Lot 7, Concession 3
Plan 20R-9412
PIN 24980-0181(LT)
PT LT 7, CON 3 NAS, AS IN 712446, S/T 712446, 205842 & 380386

The property is owned by 1000479776 ONTARIO LIMITED PARTNERSHIP.

The topographic survey also depicts what appears to be an easement running near the north edge of the property. The easement instrument listed is 205842, referenced to Plan 20R-9412, Part 1, and noted as subject to easement as in 380386 and 712446.

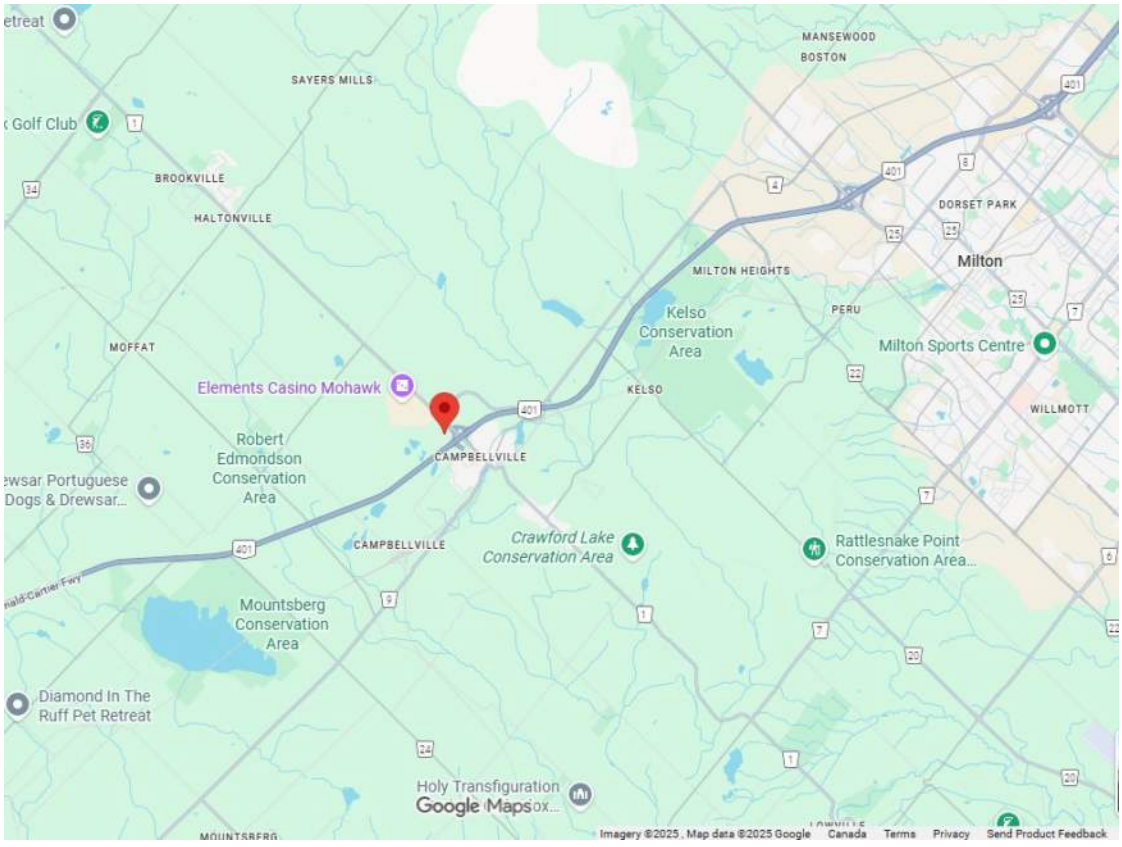


Figure 1 – Site Location Plan – 9230 Guelph Line, Town of Milton

1.2 Reference Documents

The current application for subject site is supported by the following documents.

1. Record of Pre-Consultation, meeting date March 9, 2021, with Town of Milton staff.
    a. The form lists the requested documents to support the OPA & ZBA.
2. Management Plan for the Mohawk Inn – Campbellville, prepared for "The Managed Forest Tax Incentive Program", by Williams & Associates, dated June 2014, effective January 2015. The plan discussed matters relating to trees effective from January 2015 to December 31, 2034.
3. Ecological (Environmental) Assessment Mohawk Inn Property, by Williams & Associates, dated February 16, 2016. The report findings indicate ecological observations (wetlands, significant wildlife habitat, and others as outlined in section 7.2) that are to be considered when developing the site.
4. Environmental Impact Assessment (EIA), by North-South Environmental, has two documents prepared for the WIND mobile cell tower, dated June 11, 2015, and August 25, 2015.
5. Limited Phase II Environmental Site Assessment, 9230 Guelph Line, Milton, Ontario, by Golder & Associates, dated February 2013. Report No. 12-112-0241.

2 EXISTING CONDITIONS – BACKGROUND INFORMATION

2.1 Topography, Drainage and Natural Features

The site is occupied by a few buildings and other features as described in section 1.

The subject lands are generally flat with little relief as shown on the topographical survey depicting elevations ranging from as high as approximately 292.87m near the entrance from Guelph Line down to as low as 289.57m near the center of the proposed development limit slightly south-west of the smaller building. These two grades are approximately 293 m apart resulting in an approximate slope of 1.1% from entrance to observed low point. The existing drainage pattern is categorized as sheet drainage from the north-east towards the west-south-west though some drainage appears to reach the property line shared with the MTO owner ROW of Highway 401.

The surveyed drip line shown on the drawings in this report generally outlines the western edge of the disturbed area of the site (existing entrance, parking areas, buildings and septic systems). It is our understanding this area was disturbed approximately 60 years ago from the time the Mohawk Inn was constructed prior to when it opened on June 3, 1967.

The **Topographical Plan** prepared by David B Searles Surveying Ltd. is included in **Appendix "C"** for reference.

Figure 2 – Google Maps screenshot below shows the surrounding area and general condition of the site.

Figure 2 – Aerial Map – 9230 Guelph Line, Town of Milton

2.2 Removals

The site topographical survey displays many site features with some confirmed to be present by Candevcon staff during a site visit on Wednesday, October 22, 2025.

The Mohawk Inn site has two (2) buildings that exceed 10 m^2 in floor area that are to be demolished to make space for the proposed temporary parking. Buildings that exceed 10 m^2 in gross floor area require a demolition permit from the Town of Milton.

The site does not have municipal service connections; sanitary sewage appears to have been processed onsite via septic beds, and it's presumed that water was supplied by the underground aquifer, identified to be the Aberfoyle Aquifer. Removal of the existing septic beds and any water wells will require consultation with the appropriate agencies such as the Town and/or Ministry offices.

The identified and measured disturbance area exceeds 4 ha in area as depicted on the approximated outline on the Removals Plan. The disturbed area encroaches into rights-of-way for Guelph Line and the Highway 401 corridor.

2.3 Conservation Authority

The site is located within the regulated area limits of Conservation Halton (CH). Accordingly, coordination with CH will be conducted and a permit is understood to be required as outlined in CH comments regarding a pre-consultation (March 9, 2021, meeting). CH provided a response to the pre-consultation submission/meeting and listed the documentation and technical work requested to support the ZBA.

2.4 Geotechnical/Hydrogeological Information

A Limited Phase II Environmental Site Assessment was prepared for the subject site by Golder & Associates. The report indicates two boreholes were drilling to an approximate depth of 5.6 m below grade with subsurface conditions noted as native soils underlain by limestone bedrock, found at depths ranging from 1.0m to 1.6 m below grade. Monitoring wells were installed in the bedrock and groundwater was observed at depths ranging from depths of approximately 3.15 m and to 3.83 m below grade.

Further geotechnical investigation will be required to refine the development concept during detailed engineering design.

2.5 Existing Water Supply

The subject site is not connected to a municipally owned water supply. The water supply for the previous use of the Mohawk Inn is presumed to be by source of onsite

water well given the presence of the Aberfoyle Aquifer. It is our understanding that there is no municipal water source in the immediate vicinity of the site, as outlined in a letter by Halton Region regarding pre-consultation review, dated March 9, 2021.

The condition of the well will be determined, and it may be decommissioned if unsuitable to be-reused or protected from damage if found suitable for proposed uses. Well records will be updated, accordingly.

Refer to drawing RM-1 Removals plan prepared found in **Appendix "A"**, and the Topographical Plan prepared by David B Searles Surveying Ltd. is included in **Appendix "C"** for reference.

2.6 Existing Sanitary Sewage Treatment

The subject site is not connected to a municipally owned sanitary sewer network. The wastewater generated by the Mohawk Inn is understood to have been directed to a septic bed system located on the south and west sides of the larger main building onsite. It is our understanding that there is no sanitary sewer network in the immediate vicinity of the site, as outlined in a letter by Halton Region regarding pre-consultation review, dated March 9, 2021.

The septic beds appear to be underneath a portion of the proposed temporary parking area so the existing septic systems will be removed and disposed of accordingly, adhering to jurisdictional requirements.

Refer to drawing RM-1 Removals plan prepared found in **Appendix "A"**, and the Topographical Plan prepared by David B Searles Surveying Ltd. is included in **Appendix "C"** for reference.

2.7 Existing Storm Drainage

Review of available site documentation and from a site visit on October 22, 2025, we understand the subject site is not currently serviced by storm sewers. Refer to pre-consultation notes and supporting documentation such as the site topographic survey. Refer to drawings found in **Appendix D**.

Stormwater from the subject site including the existing building (approximately 0.20 ha drainage area) appears to sheet flow towards the west, south-west and south site boundaries.

Minor areas along the perimeter of the eastern side of the site drain to the adjacent Guelph Line right-of-way and along the southern boundary to the Highway 401 corridor. Our office did not find any existing stormwater management controls or facility on the site.

3 PROPOSED DEVELOPMENT PLAN

The proposed plan is temporary parking for transport truck trailers for a temporary period of three (3) years. The temporary use proposes a paved parking lot (such as asphalt) generally in the location of the existing large main building onsite occupying the area that was disturbed when the Mohawk Inn was constructed and opened in 1967. The parking lot is proposed to cover an approximate area of 2.6 ha as shown on the post development drainage plan, which is less than the currently disturbed area outlined on the Removals Plan. Site access from Guelph Line will be maintained as it provides direct access to the Highway 401 corridor.

There are two (2) proposed concept plans and both were prepared by Candevcon and both are included in **Appendix "C"** for reference. Concept plan TSLP-1 shows a layout with 154 trailer parking spots with the Mohawk Inn building demolished. Concept plan TSLP-1A shows an alternate layout with 96 trailer parking spots with the Mohawk Inn building remaining.

4 PROPOSED SITE SERVICING (WATER AND WASTEWATER)

For the proposed temporary use as a truck parking lot absent of proposed buildings, municipal service connections nor septic beds or wells are proposed for the site.

Given the proposed works do not include any structures or buildings, it is presumed that a water supply for fire fighting is not required.

It is presumed that the existing well is not intended to be available for the proposed temporary use.

It is understood that if consideration for a bathroom is required that a temporary onsite solution such as a portable toilet will be explored as an option. Temporary measures such as a portable toilet will include regular service to maintain the facilities.

5 STORM DRAINAGE AND STORMWATER MANAGEMENT

5.1 Stormwater Management Design Criteria

The proposed stormwater management design has been developed in accordance with the standards and guidelines set out in the MOE Stormwater Management Planning and Design Manual (2003), as well as the Town of Milton (Town) and Conservation Halton (CH) engineering standards. The applicable design criteria are summarized below:

- **Drainage System:** No minor storm sewer system is proposed for the site. Surface runoff from the proposed development will sheet flow toward a **dry pond** designed to provide quantity control for storm events ranging from the **2-year to 100-year return period**.
- **Rainfall Data:** The Town of Milton Rainfall Intensity–Duration–Frequency (IDF) Curves are used for all peak flow calculations under both pre-development and post-development conditions.
- **Water Quantity Control:** post-development peak flows are controlled to pre-development levels for the 2-, 5-, 10-, 25-, 50-, and 100-year storm events.

- **Water Quality Control:** The proposed stormwater management system is designed to achieve Level 1 (Enhanced Protection), corresponding to a minimum 80% total suspended solids (TSS) removal efficiency, in accordance with MOE design standards.
- **Modeling Parameters:** The Visual OTTHYMO (VO) hydrologic model utilizes Town of Milton IDF parameters and applies the SCS Type II, 24-hour synthetic storm distribution for all design storm simulations.

5.2 Pre-development Conditions

The subject site does not have any existing stormwater quality or quantity controls. The pre-development conditions are shown on **Figure -3 –** Pre-development Conditions.
The drainage directions of stormwater runoff across the site are summarized in **Table 2**.

Table 1 – Pre-development – Drainage Conditions

Area ID	Approx. Area (m²)	Drainage Direction / Receiving Feature
Area 1	13,179 m^2 (Gravel Parking Lot)	Majority of the existing gravel parking lot drains towards the ditch
Area 2	956 m^2 (Gravel Parking Lot)	Localized depression area
Area 3	8,475 m^2 (0.20 ha of Existing building + 0.6475 ha of green spaces)	South, toward Highway 401 (MTO corridor)

The pre-development hydrologic conditions were simulated using the Visual OTTHYMO (VO) model to estimate peak runoff rates from the existing 2.60 ha design area. The analysis represents the current site condition, which includes the former Mohawk Inn building, gravel parking areas and grassed open space. The resulting pre-development peak flows for the 2- to 100-year storm events are summarized in **Table 2** below.

Table 2 – Pre-development peak flow rates

Storm Event	AREA - 1 = 1.32 Ha	AREA - 2 & 3 = 0.94 ha
	Pre Q (VO Peak Flows)	*Pre Q (VO Peak Flows)*
	(m^3/s)	*(m^3/s)*
2-Year	***0.149***	**0.071**
5-Year	***0.221***	**0.011**
10-Year	***0.266***	**0.142**
25-Year	***0.364***	**0.182**
50-Year	***0.427***	**0.217**
100-Year	***0.480***	**0.247**

Figure 3 Existing Site's Conditions (Aerial View)

5.3 Post-Development Conditions

The proposed development is a temporary trailer parking lot with associated internal access lanes and graded drainage swales designed to direct surface runoff toward a dry pond. The total design drainage area is approximately 2.6 ha, subdivided into two principal drainage catchments based on the grading layout and flow paths shown on **Drawing PRD-1**.

5.4 Water Quantity Control

All stormwater runoff generated from the development will be conveyed to two proposed dry ponds, located at the site's low points. Each pond has been designed to provide quantity control for the 2- to 100-year design storm events, detaining runoff and releasing flows through a controlled outlet structure. The outflows from both ponds will discharge to existing swales located on-site, mimicking the pre-development discharge direction. **Table 4** summarizes the water quantity assessment (detailed calculations appended).

Table 4 – Proposed Dry Pond – VO Summary

Description	DRY Pond – 1 (Area to Dry Pond -1 = 1.62 ha)					
	2-Year	**5-Year**	**10-Year**	**25-Year**	**50-Year**	**100-Year**
Targets (m^3/s)	0.149	0.221	0.266	0.364	0.427	0.480
VO Peak Flows (m^3/s)	0.245	0.356	0.422	0.515	0.595	0.662
VO Outflow (m^3/s)	0.056	0.085	0.105	0.140	0.171	0.200
Pond W.L (m)	291.15	291.25	291.30	291.40	291.45	291.50
VO Storage Required (m^3)	280	402	475	574	656	723
Storage Provided (m^3)	309	443	513	656	730	806

Description	DRY Pond – 2 (Area to Dry Pond -2 = 0.84 ha)					
	2-Year	**5-Year**	**10-Year**	**25-Year**	**50-Year**	**100-Year**
Targets (m^3/s)	0.071	0.113	0.142	0.182	0.217	0.247
VO Peak Flows (m^3/s)	0.130	0.185	0.219	0.267	0.309	0343
VO Outflow (m^3/s)	0.070	0.095	0.105	0.118	0.127	0.134
Pond W.L (m)	290.95	291.00	291.10	291.20	291.30	291.40
VO Storage Required (m^3)	*85*	*122*	*148*	*187*	*223*	*253*
Storage Provided (m^3)	105	129	180	234	293	358

To achieve the targets specified in Table 4, the following outlet controls are installed.

Dry Pond 1:

- 2 to 100 Year Release: 300mm diameter orifice and 0.40m wide and 0.20m high broad crested weir/orifice combination.
- Emergency Spillway: A 4.0m wide emergency spillway is proposed to allow storm drainage to safely exit the facility in the event that the outlet control structure fails to function, or the storm event is greater than the expected design event. The emergency spillway is proposed at an expected 100-year elevation of 291.50. The maximum discharge through the spillway is 0823m^3/s at a flow depth of 0.30m.

Dry Pond 2:

- 2 to 100 Year Release: 300mm diameter orifice
- Emergency Spillway: A 4.0m wide emergency spillway is proposed to allow storm drainage to safely exit the facility in the event that the outlet control structure fails to function, or the storm event is greater than the expected design event. The emergency spillway is proposed at an expected 100-year elevation of 291.40. The maximum discharge through the spillway is 0823m^3/s at a flow depth of 0.30m.

Details regarding the stage-storage-discharge calculations corresponding to the proposed control structures are provided in **Appendix "A"** for reference. The corresponding Visual Otthymo hydrologic model for control structure design is provided in **Appendix "B"**

under separate cover. Preliminary design details of the proposed SWM Pond are illustrated on Drawing PRD-1. The configuration of pond and dry pond detail design will be finalized as part of the Final Engineering Design.

5.5 Water Quality

Stormwater quality controls are required to achieve a minimum of 80% removal of Total Suspended Solids (TSS) in accordance with CH and Town guidelines.

For the proposed development, water quality will be achieved through a treatment train approach consisting of a dry pond providing primary sedimentation, followed by a vegetated filter swale located at the outlet prior to discharge to the existing swales.

6 SEDIMENT AND EROSION CONTROL

Sediment and erosion control measures will be shown and detailed on a Sediment and Erosion Control Plan ("ESC" Plan) for the proposed site plan at detailed design stage and prior to the commencement of any site grading and site servicing works.

The proposed ESC Plan will be prepared to conform with current Town and CH guidelines, requirements and best management practices.

Erosion and sediment control for the site will be installed as per the approved ESC Plan for all stages of construction activities, including topsoil stripping, site grading and underground servicing and for site works and building construction.

6.1 Proposed Sediment and Erosion Control Measures

The following ESC measures will be installed and maintained during construction:

1. Perimeter temporary sediment control fences and tree protection/preservation fencing to be installed prior to any site grading/demolition.
2. Granular construction mud mat to be provided at the proposed construction access point adjacent to Guelph Line to minimize off-site tracking of mud and sediments.
3. Sediment/silt traps (filter fabric) to be installed/constructed at all existing inlets and catchbasins within the adjacent existing Guelph Line right-of-way (if and where present on Guelph Line).

4. Complete final land stabilization and restoration as soon as practical.
5. Maintain ESC devices as required until all disturbed areas are fully stabilized.
6. Maintain site area, driveways, work area and adjacent roads in clean condition.

6.2 Sediment and Erosion Control Monitoring/Inspection and Maintenance

All proposed and installed ESC measures should be inspected and reviewed by a qualified Environmental Monitor on a regular basis and before and after significant rainfall events and any noted deficiencies resulting from the inspection and monitoring shall be rectified immediately.

7 SUMMARY AND RECOMMENDATIONS

i. Sanitary servicing is not proposed for this development. If a toilet is needed then options for portable toilets and their maintenance will be explored.

ii. Domestic water supply is not proposed. It is presumed that a water supply for fire fighting is not required given the proposed use of the site do not include any structures or buildings.

iii. On-site stormwater management quantity controls will be required and can be provided as proposed in Section 5 and shown on **Drawing PD-1** to achieve the desired stormwater quantity storage requirements. Stormwater quality measures are not required.

iv. Erosion and Sediment Control measures specific to this site will be designed the during detailed design stage/submissions and installed at the commencement of construction and maintained during construction to minimize the transportation of sediment downstream.

Based on our review of the existing conditions and the functional design of servicing, grading and stormwater management for the proposed development, we conclude that development of this site is technically feasible and can be completed in accordance with the engineering design standards of the Town of Milton, Region of Halton and Conservation Halton.

Prepared by:

CANDEVCON GROUP INC.

Shuchi Singh, P.Eng.
Stormwater Management Engineer

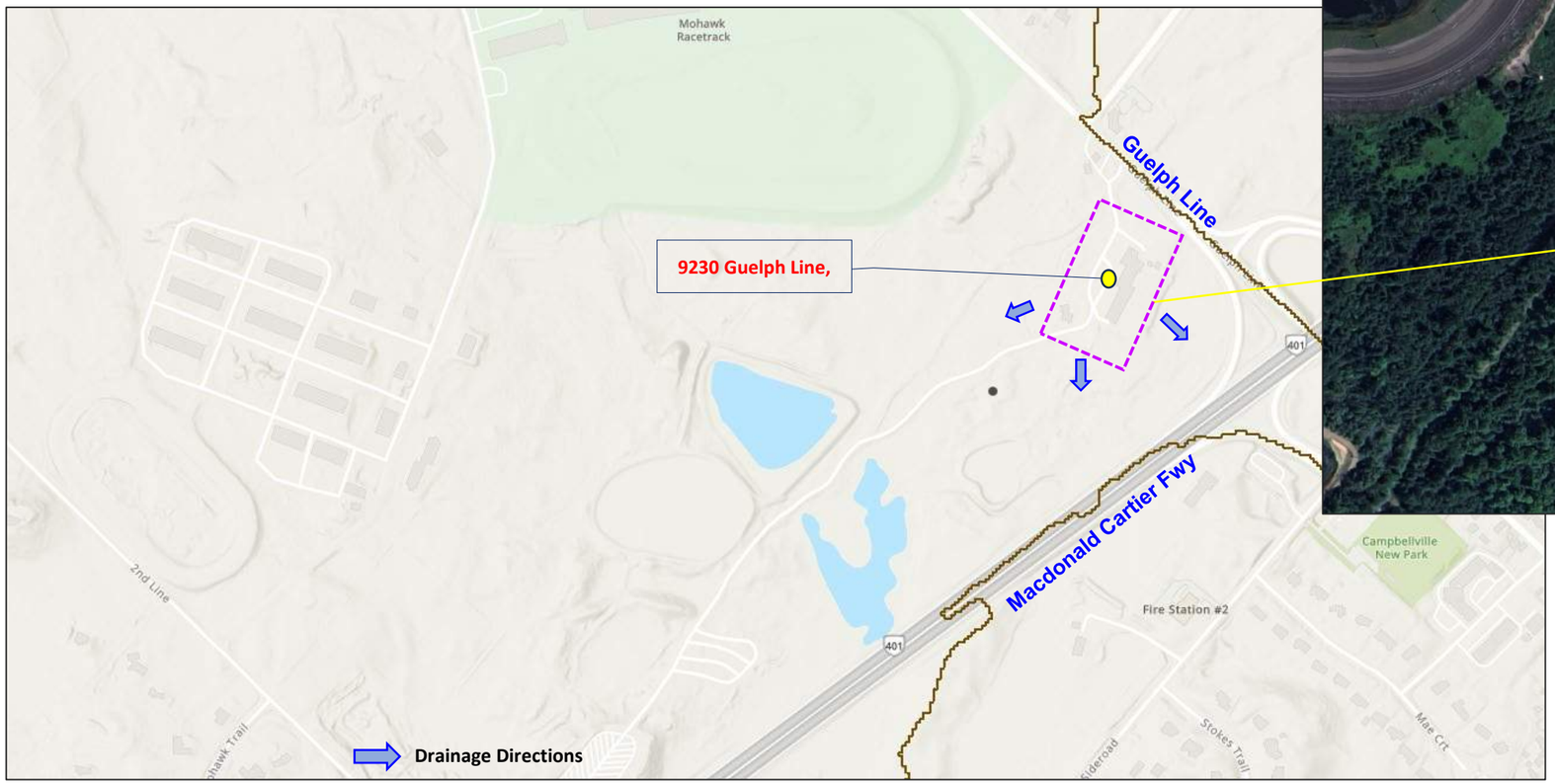
Phil Gomes, P. Eng.
Project Manager

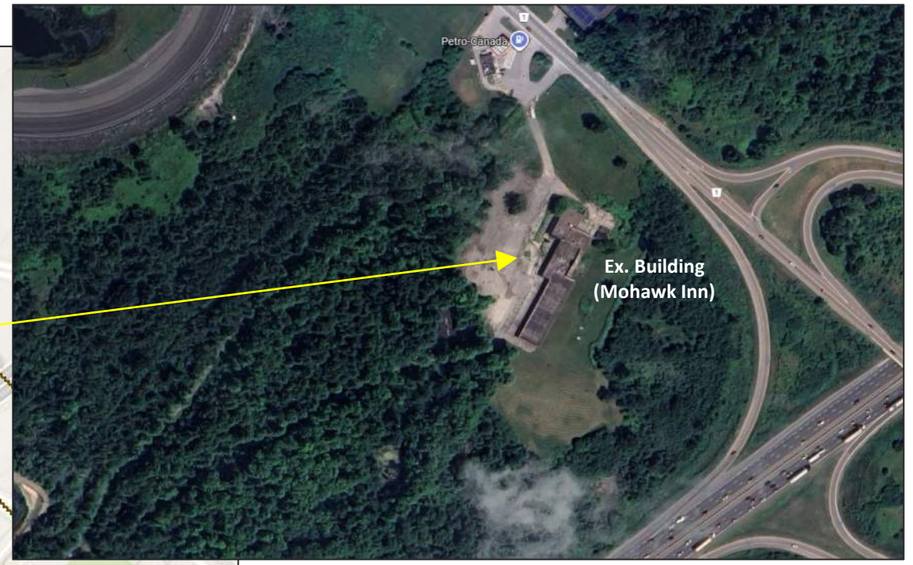
J:\CDC-2020-WEST FILES\W20135-MOHAWK-MOTEL\REPORTS\FSR\2025-12\W20135_FSR_MOHAWK INN_2025-12-17.DOCX

APPENDIX "A"

STORMWATER MANAGEMENT CALCULATIONS

Existing Site Conditions for Pre-Development Design





Total Site Area = 17.00 Ha

Development Area = 2.46 Ha

Current Site Condition = The subject property, formerly occupied by the Mohawk Inn and Conference Centre, is located on the northwest of the intersection between Highway 401 and Guelph Line in Milton. The site lies within the regulatory jurisdiction of Conservation Halton.

Surrounding Land Uses and Orientation:

North : Elements Casino Mohawk/ Racetrack and Petro-Canada service station, together with associated parking and access driveways.

East : Guelph Line and the Highway 401 on/off-ramp system.

South : MTO Lands & Highway 401

West : Wooded / naturalized area transitioning to low-lying wetland and pond features.

The site is municipally known as the former Mohawk Inn and Conference Centre, which is currently vacant and no longer in operation.

Current Drainage Condition = At present, No formal storm sewer system exists on-site; drainage occurs primarily through sheet flow and shallow surface routes.
(Refer to Existing/ Pre-Development Drainage Area Plan)

Stormwater Management Design Criteria applicable for Subject Site ;

- *SWM Measures for Quality, Quantity and Erosion Control will be provided as per Town of Milton & Conservation Halton recommendations*
- *The subject site is located under Conservation Halton Watershed Area , Subwatershed - Sixteen Mile Creek*

Pre-Development VO Model

For VO Model, the storm files for 2 to 100-year are generated using 24-Hr SCS design storm distribution from **Town of Milton IDF Data**

Pre-Development Model Parameters ;

Total Site Area = **17.00 Ha**

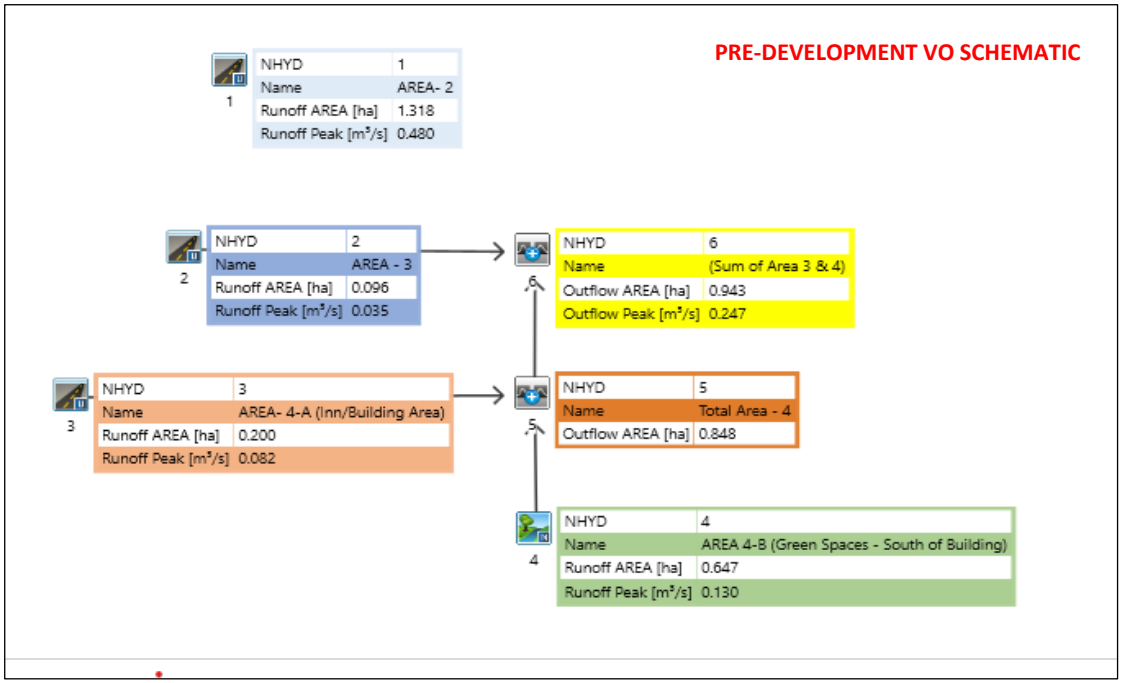
Subject Development Area = **2.26 Ha (Area 1 + Area 2 + Area 3)**

Refer to Pre-Development Drainage Area Plan (PRD-1) for the area breakdown & Site's existing drainage patterns

Area ID	Approx. Area (m²)	Drainage Direction / Receiving Feature	Description	Changes in Post Development Scenario		SWM Controls Status
EX Area 1	**13179 m^2 (Gravel Parking Lot)**	Area drain towards existing ditch	Majority of the existing gravel parking lot drains towards the ditch	the ditch will receive similar drainage area under post-development	For VO Model Analysis - The Flows from Area 3 & 4 are combined together to establish Targets	**Quality & Quantity Controls Provided**
EX Area 2	**956 m^2 (Gravel Parking Lot)**	Internal low area between existing buildings	Localized depression area	Included in hydrologic modeling.		
EX Area 3	**8475 m^2 (0.20 ha of Existing building + 0.6475 ha of green spaces)**	South, toward Highway 401 (MTO corridor)	Southern portion of the site draining toward the highway embankment and associated grassed swale.	Included in hydrologic modeling.		

Storm Event	AREA - 1 = 1.32 Ha	AREA - 2 & 3 = 0.94 ha
	Pre Q (VO Peak Flows)	*Pre Q (VO Peak Flows)*
	m^3/s	*m^3/s*
2-Year	*0.149*	0.071
5-Year	*0.221*	0.011
10-Year	*0.266*	0.142
25-Year	*0.364*	0.182
50-Year	*0.427*	0.217
100-Year	*0.480*	0.247

PRE-DEVELOPMENT VO SCHEMATIC



Post - Development VO Model

Total Site Area = 17.00 ha

Site Development Area = 2.46 Ha (Area 1 & Area 2)

Refer to Post-Development Drainage Area Plan (PD-1) for the area breakdown & proposed drainage patterns

Notes : The proposed development area will be graded to direct surface runoff from the entire parking lot as sheet flow toward a dry pond for quantity control. The dry pond will be situated at the low point of the site and will discharge toward the existing wooded area.

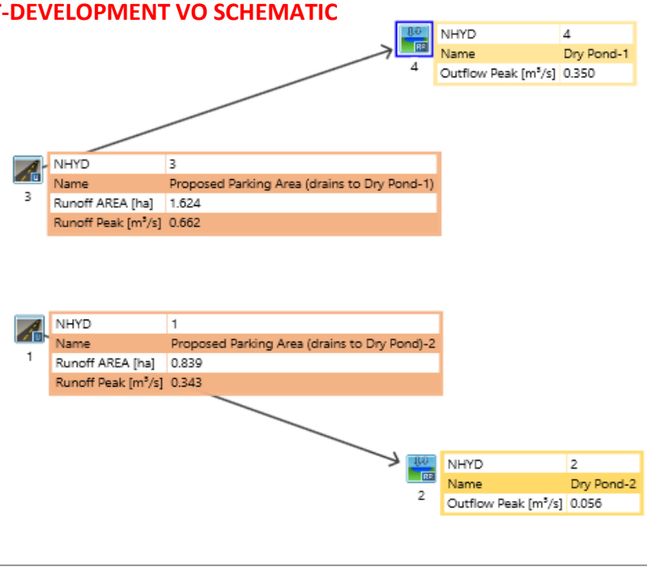
AREAS TO DRY POND 1

	Runoff Coeff. (C)	Area (Ha)	
Proposed Parking Area =	0.90	1.624	ha
Landscape/Field Areas =	0.25	0.000	ha
	Subtotal	**1.62**	**ha**

AREAS TO DRY POND 2

	Runoff Coeff. (C)	Area (Ha)	
Proposed Parking Area =	0.90	0.839	ha
Landscape/Field Areas =	0.25	0.000	ha
	Subtotal	**0.84**	**ha**

POST-DEVELOPMENT VO SCHEMATIC



DRY POND 1

Water Quality Volume Required for 60% TSS Removal =	240	m^3/ha (MOE Table 3.2)
% Imp =	85%	
Drainage Area =	1.624	Ha
Water Quality Volume Required =	390	m^3
Total Volume in Pond =	584	m^3

Quality Control will be provided with a combination of Proposed Dry Pond & Vegetated Filter Swale at the Outlet to provide overall 80% TSS Removal

DRY POND 2

Water Quality Volume Required for 60% TSS Removal =	240	m^3/ha (MOE Table 3.2)
% Imp =	85%	
Drainage Area =	0.839	Ha
Water Quality Volume Required =	201	m^3
Total Volume in Pond =		

Quality Control will be provided with a combination of Proposed Dry Pond & Vegetated Filter Swale at the Outlet to provide overall 80% TSS Removal

Orifice No.1 (To Control 2 - 100-Year Events)

Orifice Plate Diameter =	0.300	m
	300	**mm**
Area =	0.0707	m^2
Orifice Coeff. (C) =	0.63	
Invert =	290.90	m
Orifice Plate Centroid =	291.05	m

Submerged Orifice Equation = $Q_o = 0.63 \times A \times [2 \times g \times H]^{1/2}$

Where,

Q_o = Flow rate (m^3/s)

C = Discharge Coefficient

A = Area of opening (m^2)

H = Net head above the orifice (m)

g = Acceleration due to gravity (m/s)

Weir/Orifice No.2 (To Control 2 - 100-Year Events)

Orifice Width =	**0.40**	**m**
Orifice Height =	**0.20**	**m**
Area of Opening =	0.080	m^2
Orifice Coeff. (C) =	0.63	
Invert =	291.20	m
Orifice Centroid =	291.30	m

WEIR CUT-OUT DETAILS

Weir Equation = $Q_w = 1.67 \times L \times H^{\wedge 1.5}$

Weir Specifications

Length of Weir =	0.40	m
Weir Sill =	291.20	m
Weir Top =	291.40	m
Weir Coefficient =	1.67	

Where,

Q_w = Flow rate (m^3/s)

C = Discharge Coefficient

L = Weir Length (m)

H = Net Head on the Orifice (m)

Stage (m)	0.05	ORIFICE CONTROL - 1 (ORIFICE PLATE)		ORIFICE/WEIR CONTROL - 2 (BOX CUT-OUT)				
Active Storage (m^3)	**Elevation (m)**	**Depth above Orifice Centroid (m)**	**Orifice No.1 Flow (m^3/s)**	**Depth above Orifice Centroid (m)**	**Orifice No.2 Flow (m^3/s)**	**Depth Above Weir (m)**	**Weir No.2 Flow (m^3/s)**	**Total Flow (m^3/s)**
-	290.90	0	0.000					0.000
59	290.95	0	0.000					0.000
119	291.00	0	0.000					0.000
181	291.05	0.00	0.000					0.000
244	291.10	0.05	0.044					0.044
309	**291.15**	**0.10**	**0.062**					**0.062**
375	291.20	0.15	0.076			0.00	0.000	0.076
443	**291.25**	**0.20**	**0.088**			**0.05**	**0.007**	**0.096**
513	**291.30**	**0.25**	**0.099**			**0.10**	**0.021**	**0.120**
583	291.35	0.30	0.108			0.15	0.039	0.147
656	**291.40**	**0.35**	**0.117**			**0.20**	**0.060**	**0.176**
730	**291.45**	**0.40**	**0.125**	**0.15**	**0.086**			**0.211**
806	**291.50**	**0.45**	**0.132**	**0.20**	**0.100**			**0.232**
883	291.55	0.50	0.139	0.25	0.112			0.251
962	291.60	0.55	0.146	0.30	0.122			0.269
1,042	291.65	0.60	0.153	0.35	0.132			0.285
1,125	291.70	0.65	0.159	0.40	0.141			0.300
1,208	291.75	0.70	0.165	0.45	0.150			0.315
1,294	291.80	0.75	0.171	0.50	0.158			0.329

2-Year
2-Year
5-Year
10-Year
25-Year
50-Year
100-Year
2-Year
5-Year
10-Year
25-Year
50-Year
100-Year

Summary of Visual Otthymo Results for 2 to 100-Year , 24hr SCS Type II Storm (Toronto Pearson IDF) - Dry Pond

Storm Event	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year
Target Rate (m^3/s)	*0.149*	*0.221*	*0.266*	*0.364*	*0.427*	*0.48*
Peak Flows Generated (m^3/s)	0.245	0.356	0.422	0.515	0.595	0.662
VO Release Rate (m^3/s)	0.056	0.085	0.105	0.140	0.171	0.200
Storage Used (m^3)	**280**	**402**	**475**	**574**	**656**	**723**
Storage Provided in Pond (m^3)	309	443	513	656	730	806
Control Structure Flows (m^3/s)	0.062	0.096	0.120	0.176	0.211	0.232
Elevation in Pond (m)	291.15	291.25	291.30	291.40	291.45	291.50

DRY POND-2 (Control Structure Design)

Orifice Control No. 1

Orifice Plate Diameter =	0.300	m
	300	mm
Opening Area =	0.0707	m^2
Orifice Coeff. (C)=	0.63	
Invert =	290.75	m

Submerged Orifice Equation = $Qo = 0.63 \times A \times [2 \times g \times H]^{1/2}$

Where,

Q = Flow rate (m^3/s)
C = Constant
A = Area of opening (m^2)
H = Net head above the orifice (m)
g = Acceleration due to gravity (m/s)

Stage (m):	0.05

	Elevation	Depth above orifice Centroid (m)	Orifice No.1 Flow (m^3/s)	Storage in Dry Pond (m^3)	Total Flow (m^3/s)	
	290.70	0	0	**0**	0.000	
	290.75	0	0	**19**	0.000	
	290.80	0.05	0.044	**39**	0.044	
	290.85	0.10	0.062	**60**	0.062	
	290.90	0.15	0.076	**82**	0.076	
2-Year	**290.95**	**0.20**	**0.088**	**105**	**0.088**	**2-Year**
5-Year	**291.00**	**0.25**	**0.099**	**129**	**0.099**	**5-Year**
	291.05	0.30	0.108	**154**	0.108	
10-Year	**291.10**	**0.35**	**0.117**	**180**	**0.117**	**10-Year**
	291.15	0.40	0.125	**206**	0.125	
25-Year	**291.20**	**0.45**	**0.132**	**234**	**0.132**	**25-Year**
	291.25	0.50	0.139	**263**	0.139	
50-Year	**291.30**	**0.55**	**0.146**	**293**	**0.146**	**50-Year**
	291.35	0.60	0.153	**325**	0.153	
100-Year	**291.40**	**0.65**	**0.159**	**358**	**0.159**	**100-Year**
	291.45	0.70	0.165	**392**	0.165	
	291.50	0.75	0.171	**428**	0.171	
	291.55	0.80	0.176	**465**	0.176	
	291.60	0.85	0.182	**503**	0.182	
	291.65	0.90	0.187	**543**	0.187	
	291.70	0.95	0.192	**584**	0.192	

Summary of Visual Otthymo Results for 2 to 100-Year , 24hr SCS Type II Storm (Toronto Pearson IDF) - Dry Pond

Storm Event	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year
Target Rate (m^3/s)	*0.071*	*0.113*	*0.142*	*0.182*	*0.217*	*0.247*
Peak Flows Generated (m^3/s)	0.130	0.185	0.219	0.267	0.309	0.343
VO Release Rate (m^3/s)	0.070	0.095	0.105	0.118	0.127	0.134
Storage Used (m^3)	**85**	**122**	**148**	**187**	**223**	**253**
Storage Provided in Pond (m^3)	105	129	180	234	293	358
Control Structure Flows (m^3/s)	0.088	0.099	0.117	0.132	0.146	0.159
Elevation in Pond (m)	290.95	291.00	291.10	291.20	291.30	291.40

Emergency Spillway Design- Pond 1

Notes : **** As per MOE SWM Manual definition, the Emergency Spillway is designed to convey storm drainage flows out of the facility in the event that the other outlets (in control structure) are not functioning properly.***

The Emergency spillway is proposed at 100-year Elevation = 291.50 m

100-Year Storm Peak Flows (Q_{inflow}) = #REF! m^3/s

Emergency Spillway Weir Parameters

Top Width of Weir =	4	m
Downstream Width of Weir =	2	m
Median Width (B) =	3	m
Weir Sill Elevation (At 100-Year) =	291.50	m
Weir Top Elevation =	291.80	m
Depth of Weir =	0.30	m
Weir Side Slopes =	10	: 1

Weir Equation;

$$Q_w = (CL(H^{3/2})$$

Stage :	0.05		
	Depth	**Cd**	**Q**
291.50	0	1.67	0.000
291.55	0.05	1.67	0.056
291.60	0.10	1.67	0.158
291.65	0.15	1.67	0.291
291.70	0.20	1.67	0.448
291.75	0.25	1.67	0.626
291.80	0.30	1.67	0.823

Therefore, Maximum capacity of Spillway is = 0.823 m^3/s **>** #REF! m^3/s

(100-Year Storm Peak Flows)

Emergency Spillway Design- Pond 2

Notes : **** As per MOE SWM Manual definition, the Emergency Spillway is designed to convey storm drainage flows out of the facility in the event that the other outlets (in control structure) are not functioning properly.***

The Emergency spillway is proposed at 100-year Elevation = 291.40 m

100-Year Storm Peak Flows (Q_{inflow}) = 0.343 m^3/s

Emergency Spillway Weir Parameters

Top Width of Weir =	4	m
Downstream Width of Weir =	2	m
Median Width (B) =	3	m
Weir Sill Elevation (At 100-Year) =	291.40	m
Weir Top Elevation =	291.70	m
Depth of Weir =	0.30	m
Weir Side Slopes =	10	: 1

Weir Equation;

$$Q_w = (CL(H^{3/2})$$

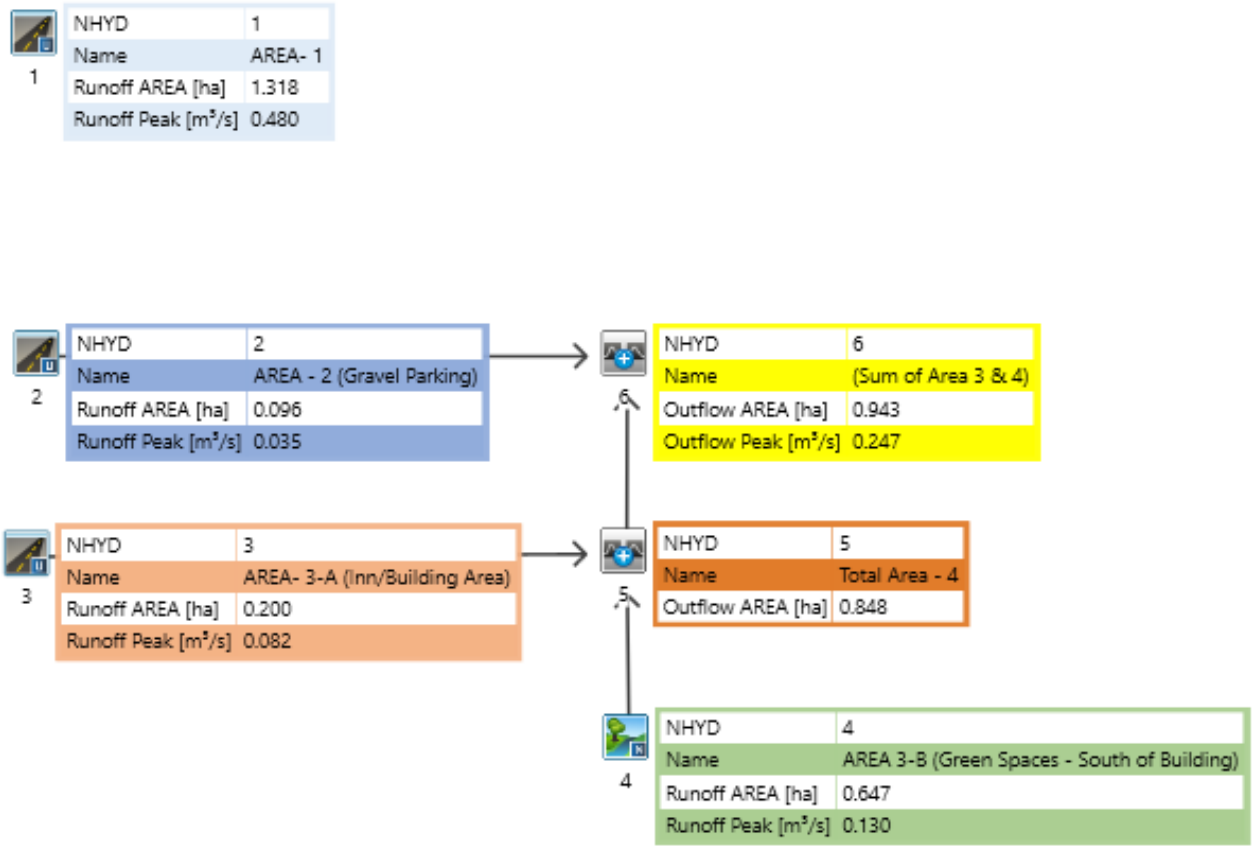
Stage :	0.05		
	Depth	**Cd**	**Q**
291.40	0	1.67	0.000
291.45	0.05	1.67	0.056
291.50	0.10	1.67	0.158
291.55	0.15	1.67	0.291
291.60	0.20	1.67	0.448
291.65	0.25	1.67	0.626
291.70	0.30	1.67	0.823

Therefore, Maximum capacity of Spillway is = 0.823 m^3/s > 0.343 m^3/s
(100-Year Storm Peak Flows)

APPENDIX "B"

VISUAL OTTHYMO RESULTS

PRE-DEVELOPMENT VO LAYOUT



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

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\eaefdfbe-34ef-4580-8f10-f2c6874d138c\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\eaefdfbe-34ef-4580-8f10-f2c6874d138c\scena


DATE: 11/03/2025                          TIME: 12:20:48

USER:



COMMENTS: _____________________________________________________________


--------------------------------------------------------------------------------
----------------------------------
  ********************************************
  ** SIMULATION : 2yr 24hr 10min SCS Type II (M **
  ********************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              042657bd-477a-495a-b1ba-
6907020212d4\c7ba9a31
| Ptotal= 48.00 mm |    Comments: 2yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	0.86	12.33	6.91	18.50	0.86
0.17	0.53	6.33	0.86	12.50	6.91	18.67	0.86
0.33	0.53	6.50	0.86	12.67	3.55	18.83	0.86
0.50	0.53	6.67	0.86	12.83	3.55	19.00	0.86
0.67	0.53	6.83	0.86	13.00	3.55	19.17	0.86
0.83	0.53	7.00	0.86	13.17	2.59	19.33	0.86
1.00	0.53	7.17	1.06	13.33	2.59	19.50	0.86
1.17	0.53	7.33	1.06	13.50	2.59	19.67	0.86
1.33	0.53	7.50	1.06	13.67	2.02	19.83	0.86
1.50	0.53	7.67	1.06	13.83	2.02	20.00	0.86
1.67	0.53	7.83	1.06	14.00	2.02	20.17	0.58
1.83	0.53	8.00	1.06	14.17	1.44	20.33	0.58
2.00	0.53	8.17	1.25	14.33	1.44	20.50	0.58
2.17	0.62	8.33	1.25	14.50	1.44	20.67	0.58
2.33	0.62	8.50	1.25	14.67	1.44	20.83	0.58
2.50	0.62	8.67	1.34	14.83	1.44	21.00	0.58
2.67	0.62	8.83	1.34	15.00	1.44	21.17	0.58
2.83	0.62	9.00	1.34	15.17	1.44	21.33	0.58
3.00	0.62	9.17	1.54	15.33	1.44	21.50	0.58
3.17	0.62	9.33	1.54	15.50	1.44	21.67	0.58
3.33	0.62	9.50	1.54	15.67	1.44	21.83	0.58
3.50	0.62	9.67	1.73	15.83	1.44	22.00	0.58
3.67	0.62	9.83	1.73	16.00	1.44	22.17	0.58
3.83	0.62	10.00	1.73	16.17	0.86	22.33	0.58
4.00	0.62	10.17	2.21	16.33	0.86	22.50	0.58
4.17	0.77	10.33	2.21	16.50	0.86	22.67	0.58

```
                4.33    0.77 | 10.50    2.21 | 16.67    0.86 | 22.83
0.58
                4.50    0.77 | 10.67    2.98 | 16.83    0.86 | 23.00
0.58
                4.67    0.77 | 10.83    2.98 | 17.00    0.86 | 23.17
0.58
                4.83    0.77 | 11.00    2.98 | 17.17    0.86 | 23.33
0.58
                5.00    0.77 | 11.17    4.61 | 17.33    0.86 | 23.50
0.58
                5.17    0.77 | 11.33    4.61 | 17.50    0.86 | 23.67
0.58
                5.33    0.77 | 11.50    4.61 | 17.67    0.86 | 23.83
0.58
                5.50    0.77 | 11.67   14.21 | 17.83    0.86 | 24.00
0.58
                5.67    0.77 | 11.83   36.48 | 18.00    0.86 |
                5.83    0.77 | 12.00   58.75 | 18.17    0.86 |
                6.00    0.77 | 12.17    6.91 | 18.33    0.86 |

--------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   1.32
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.79         0.53
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      93.73        40.00
     Mannings n             =    0.013        0.250

     Max.Eff.Inten.(mm/hr)=      58.75        26.14
               over (min)        10.00        20.00
     Storage Coeff.  (min)=       3.04 (ii)   15.11 (ii)
     Unit Hyd. Tpeak (min)=      10.00        20.00
     Unit Hyd. peak  (cms)=       0.16         0.07
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.13         0.03          0.149 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.33          12.17
     RUNOFF VOLUME    (mm)=      47.00        23.68          37.66
     TOTAL RAINFALL   (mm)=      48.00        48.00          48.00
     RUNOFF COEFFICIENT   =       0.98         0.49           0.78

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.65   Curve Number   (CN)= 80.0
|ID= 1 DT=10.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.20

     Unit Hyd Qpeak  (cms)=   0.124

     PEAK FLOW       (cms)=   0.029 (i)
     TIME TO PEAK    (hrs)=  12.167
     RUNOFF VOLUME    (mm)=  16.910
     TOTAL RAINFALL   (mm)=  48.000
     RUNOFF COEFFICIENT   =   0.352

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

--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   0.20
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.19         0.01
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      36.51        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      58.75        92.25
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       1.73 (ii)    9.02 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.11
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.03         0.00          0.031 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      47.00        32.05          45.50
     TOTAL RAINFALL   (mm)=      48.00        48.00          48.00
     RUNOFF COEFFICIENT   =       0.98         0.67           0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

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

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0003):     0.20   0.031    12.17    45.50
     + ID2= 2 (  0004):     0.65   0.029    12.17    16.91
       ================================================
       ID = 3 (  0005):     0.85   0.060    12.17    23.66

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0002)|   Area    (ha)=   0.10
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.06         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      25.25        40.00
     Mannings n             =     0.013        0.250

     Max.Eff.Inten.(mm/hr)=      58.75        26.14
               over (min)        10.00        20.00
     Storage Coeff.  (min)=       1.38 (ii)   13.46 (ii)
     Unit Hyd. Tpeak (min)=      10.00        20.00
     Unit Hyd. peak  (cms)=       0.17         0.07
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.01         0.00          0.011 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.33          12.17
     RUNOFF VOLUME    (mm)=      47.00        23.68          37.63
     TOTAL RAINFALL   (mm)=      48.00        48.00          48.00
     RUNOFF COEFFICIENT   =       0.98         0.49           0.78

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

--------------------------------------------------------------------------------
-----

--------------------
| ADD HYD  (  0006)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
```

```
        ID1= 1 (  0002):     0.10   0.011    12.17    37.63
      + ID2= 2 (  0005):     0.85   0.060    12.17    23.66
        ==========================================================
        ID = 3 (  0006):     0.94   0.071    12.17    25.07

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------
-----

 FINISH
================================================================================
==================================
```

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

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\c339a4e8-ee5d-440b-a21f-10d1a466395c\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\c339a4e8-ee5d-440b-a21f-10d1a466395c\scena


DATE: 11/03/2025                          TIME: 12:20:48

USER:



COMMENTS: _____________________________________________________________


--------------------------------------------------------------------------------
----------------------------------
  ********************************************
  ** SIMULATION : 5yr 24hr 10min SCS Type II (M **
  ********************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              042657bd-477a-495a-b1ba-
6907020212d4\8b554e50
| Ptotal= 67.20 mm |    Comments: 5yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	1.21	12.33	9.68	18.50	1.21
0.17	0.74	6.33	1.21	12.50	9.68	18.67	1.21
0.33	0.74	6.50	1.21	12.67	4.97	18.83	1.21
0.50	0.74	6.67	1.21	12.83	4.97	19.00	1.21
0.67	0.74	6.83	1.21	13.00	4.97	19.17	1.21
0.83	0.74	7.00	1.21	13.17	3.63	19.33	1.21
1.00	0.74	7.17	1.48	13.33	3.63	19.50	1.21
1.17	0.74	7.33	1.48	13.50	3.63	19.67	1.21
1.33	0.74	7.50	1.48	13.67	2.82	19.83	1.21
1.50	0.74	7.67	1.48	13.83	2.82	20.00	1.21
1.67	0.74	7.83	1.48	14.00	2.82	20.17	0.81
1.83	0.74	8.00	1.48	14.17	2.02	20.33	0.81
2.00	0.74	8.17	1.75	14.33	2.02	20.50	0.81
2.17	0.87	8.33	1.75	14.50	2.02	20.67	0.81
2.33	0.87	8.50	1.75	14.67	2.02	20.83	0.81
2.50	0.87	8.67	1.88	14.83	2.02	21.00	0.81
2.67	0.87	8.83	1.88	15.00	2.02	21.17	0.81
2.83	0.87	9.00	1.88	15.17	2.02	21.33	0.81
3.00	0.87	9.17	2.15	15.33	2.02	21.50	0.81
3.17	0.87	9.33	2.15	15.50	2.02	21.67	0.81
3.33	0.87	9.50	2.15	15.67	2.02	21.83	0.81
3.50	0.87	9.67	2.42	15.83	2.02	22.00	0.81
3.67	0.87	9.83	2.42	16.00	2.02	22.17	0.81
3.83	0.87	10.00	2.42	16.17	1.21	22.33	0.81
4.00	0.87	10.17	3.09	16.33	1.21	22.50	0.81
4.17	1.08	10.33	3.09	16.50	1.21	22.67	0.81

```
                4.33    1.08 | 10.50    3.09 | 16.67    1.21 | 22.83
0.81
                4.50    1.08 | 10.67    4.17 | 16.83    1.21 | 23.00
0.81
                4.67    1.08 | 10.83    4.17 | 17.00    1.21 | 23.17
0.81
                4.83    1.08 | 11.00    4.17 | 17.17    1.21 | 23.33
0.81
                5.00    1.08 | 11.17    6.45 | 17.33    1.21 | 23.50
0.81
                5.17    1.08 | 11.33    6.45 | 17.50    1.21 | 23.67
0.81
                5.33    1.08 | 11.50    6.45 | 17.67    1.21 | 23.83
0.81
                5.50    1.08 | 11.67   19.89 | 17.83    1.21 | 24.00
0.81
                5.67    1.08 | 11.83   51.07 | 18.00    1.21 |
                5.83    1.08 | 12.00   82.25 | 18.17    1.21 |
                6.00    1.08 | 12.17    9.68 | 18.33    1.21 |

--------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   1.32
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.79         0.53
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      93.73        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      82.25        56.90
               over (min)        10.00        20.00
     Storage Coeff.  (min)=       2.66 (ii)   11.50 (ii)
     Unit Hyd. Tpeak (min)=      10.00        20.00
     Unit Hyd. peak  (cms)=       0.17         0.08
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.18         0.05          0.221 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.33          12.17
     RUNOFF VOLUME    (mm)=      66.20        39.06          55.34
     TOTAL RAINFALL   (mm)=      67.20        67.20          67.20
     RUNOFF COEFFICIENT   =       0.99         0.58           0.82

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.65   Curve Number   (CN)= 80.0
|ID= 1 DT=10.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.20

     Unit Hyd Qpeak  (cms)=   0.124

     PEAK FLOW       (cms)=   0.052 (i)
     TIME TO PEAK    (hrs)=  12.167
     RUNOFF VOLUME    (mm)=  29.978
     TOTAL RAINFALL   (mm)=  67.200
     RUNOFF COEFFICIENT   =   0.446

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

--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   0.20
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------

                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.19         0.01
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      36.51        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      82.25       140.74
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       1.51 (ii)    7.67 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.12
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.04         0.00          0.044 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      66.20        49.69          64.54
     TOTAL RAINFALL   (mm)=      67.20        67.20          67.20
     RUNOFF COEFFICIENT   =       0.99         0.74           0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

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

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0003):     0.20   0.044    12.17    64.54
      + ID2= 2 (  0004):     0.65   0.052    12.17    29.98
        ================================================
        ID = 3 (  0005):     0.85   0.096    12.17    38.14

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0002)|   Area    (ha)=   0.10
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.06         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      25.25        40.00
     Mannings n             =     0.013        0.250

     Max.Eff.Inten.(mm/hr)=      82.25        56.90
               over (min)        10.00        20.00
     Storage Coeff.  (min)=       1.21 (ii)   10.05 (ii)
     Unit Hyd. Tpeak (min)=      10.00        20.00
     Unit Hyd. peak  (cms)=       0.17         0.08
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.01         0.00          0.016 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.33          12.17
     RUNOFF VOLUME    (mm)=      66.20        39.05          55.29
     TOTAL RAINFALL   (mm)=      67.20        67.20          67.20
     RUNOFF COEFFICIENT   =       0.99         0.58           0.82

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

--------------------------------------------------------------------------------
-----

--------------------
| ADD HYD  (  0006)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
```

```
      ID1= 1 (  0002):     0.10   0.016    12.17    55.29
    + ID2= 2 (  0005):     0.85   0.096    12.17    38.14
      ================================================
      ID = 3 (  0006):     0.94   0.113    12.17    39.87

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------
-----
```

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

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\67b49c11-2623-4895-bb6e-7fa67709b1e0\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\67b49c11-2623-4895-bb6e-7fa67709b1e0\scena


DATE: 11/03/2025                          TIME: 12:20:48

USER:


COMMENTS: _____________________________________________________________


--------------------------------------------------------------------------------
---------------------------------
  ********************************************
  ** SIMULATION : 10yr 24hr 10min SCS Type II ( **
  ********************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              042657bd-477a-495a-b1ba-
6907020212d4\41eb94f4
| Ptotal= 79.20 mm |    Comments: 10yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	1.43	12.33	11.40	18.50	1.43
0.17	0.87	6.33	1.43	12.50	11.40	18.67	1.43
0.33	0.87	6.50	1.43	12.67	5.86	18.83	1.43
0.50	0.87	6.67	1.43	12.83	5.86	19.00	1.43
0.67	0.87	6.83	1.43	13.00	5.86	19.17	1.43
0.83	0.87	7.00	1.43	13.17	4.28	19.33	1.43
1.00	0.87	7.17	1.74	13.33	4.28	19.50	1.43
1.17	0.87	7.33	1.74	13.50	4.28	19.67	1.43
1.33	0.87	7.50	1.74	13.67	3.33	19.83	1.43
1.50	0.87	7.67	1.74	13.83	3.33	20.00	1.43
1.67	0.87	7.83	1.74	14.00	3.33	20.17	0.95
1.83	0.87	8.00	1.74	14.17	2.38	20.33	0.95
2.00	0.87	8.17	2.06	14.33	2.38	20.50	0.95
2.17	1.03	8.33	2.06	14.50	2.38	20.67	0.95
2.33	1.03	8.50	2.06	14.67	2.38	20.83	0.95
2.50	1.03	8.67	2.22	14.83	2.38	21.00	0.95
2.67	1.03	8.83	2.22	15.00	2.38	21.17	0.95
2.83	1.03	9.00	2.22	15.17	2.38	21.33	0.95
3.00	1.03	9.17	2.53	15.33	2.38	21.50	0.95
3.17	1.03	9.33	2.53	15.50	2.38	21.67	0.95
3.33	1.03	9.50	2.53	15.67	2.38	21.83	0.95
3.50	1.03	9.67	2.85	15.83	2.38	22.00	0.95
3.67	1.03	9.83	2.85	16.00	2.38	22.17	0.95
3.83	1.03	10.00	2.85	16.17	1.43	22.33	0.95
4.00	1.03	10.17	3.64	16.33	1.43	22.50	0.95
4.17	1.27	10.33	3.64	16.50	1.43	22.67	0.95

```
                4.33    1.27 | 10.50    3.64 | 16.67    1.43 | 22.83
0.95
                4.50    1.27 | 10.67    4.91 | 16.83    1.43 | 23.00
0.95
                4.67    1.27 | 10.83    4.91 | 17.00    1.43 | 23.17
0.95
                4.83    1.27 | 11.00    4.91 | 17.17    1.43 | 23.33
0.95
                5.00    1.27 | 11.17    7.60 | 17.33    1.43 | 23.50
0.95
                5.17    1.27 | 11.33    7.60 | 17.50    1.43 | 23.67
0.95
                5.33    1.27 | 11.50    7.60 | 17.67    1.43 | 23.83
0.95
                5.50    1.27 | 11.67   23.44 | 17.83    1.43 | 24.00
0.95
                5.67    1.27 | 11.83   60.19 | 18.00    1.43 |
                5.83    1.27 | 12.00   96.94 | 18.17    1.43 |
                6.00    1.27 | 12.17   11.40 | 18.33    1.43 |

--------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   1.32
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.79         0.53
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      93.73        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      96.94        71.43
               over (min)        10.00        20.00
     Storage Coeff.  (min)=       2.49 (ii)   10.56 (ii)
     Unit Hyd. Tpeak (min)=      10.00        20.00
     Unit Hyd. peak  (cms)=       0.17         0.08
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.21         0.06          0.266 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.33          12.17
     RUNOFF VOLUME    (mm)=      78.20        49.27          66.63
     TOTAL RAINFALL   (mm)=      79.20        79.20          79.20
     RUNOFF COEFFICIENT   =       0.99         0.62           0.84

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.65   Curve Number   (CN)= 80.0
|ID= 1 DT=10.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.20

     Unit Hyd Qpeak  (cms)=   0.124

     PEAK FLOW       (cms)=   0.068 (i)
     TIME TO PEAK    (hrs)=  12.167
     RUNOFF VOLUME    (mm)=  38.943
     TOTAL RAINFALL   (mm)=  79.200
     RUNOFF COEFFICIENT   =   0.492

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

--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   0.20
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------

                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.19         0.01
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      36.51        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      96.94       171.25
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       1.41 (ii)    7.10 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.13
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.05         0.00          0.053 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      78.20        61.02          76.48
     TOTAL RAINFALL   (mm)=      79.20        79.20          79.20
     RUNOFF COEFFICIENT   =       0.99         0.77           0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

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

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0003):     0.20   0.053    12.17    76.48
     + ID2= 2 (  0004):     0.65   0.068    12.17    38.94
       ================================================
       ID = 3 (  0005):     0.85   0.120    12.17    47.80

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0002)|   Area    (ha)=   0.10
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.06         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      25.25        40.00
     Mannings n             =     0.013        0.250

     Max.Eff.Inten.(mm/hr)=      96.94        71.43
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       1.13 (ii)    9.21 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.11
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.02         0.01          0.022 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      78.20        49.27          66.60
     TOTAL RAINFALL   (mm)=      79.20        79.20          79.20
     RUNOFF COEFFICIENT   =       0.99         0.62           0.84

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

--------------------------------------------------------------------------------
-----

--------------------
| ADD HYD  (  0006)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
```

```
      ID1= 1 (  0002):     0.10   0.022    12.17    66.60
    + ID2= 2 (  0005):     0.85   0.120    12.17    47.80
      ==================================================
      ID = 3 (  0006):     0.94   0.142    12.17    49.71

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------
-----
```

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

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\df028cda-3357-474d-95bd-7eeadce52cab\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\df028cda-3357-474d-95bd-7eeadce52cab\scena


DATE: 11/03/2025                          TIME: 12:20:48

USER:



COMMENTS: _____________________________________________________________________

--------------------------------------------------------------------------------
----------------------------------
  ************************************************
  ** SIMULATION : 25yr 24hr 10min SCS Type II ( **
  ************************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              042657bd-477a-495a-b1ba-
6907020212d4\a1a80877
| Ptotal= 96.00 mm |    Comments: 25yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	1.73	12.33	13.82	18.50	1.73
0.17	1.06	6.33	1.73	12.50	13.82	18.67	1.73
0.33	1.06	6.50	1.73	12.67	7.10	18.83	1.73
0.50	1.06	6.67	1.73	12.83	7.10	19.00	1.73
0.67	1.06	6.83	1.73	13.00	7.10	19.17	1.73
0.83	1.06	7.00	1.73	13.17	5.18	19.33	1.73
1.00	1.06	7.17	2.11	13.33	5.18	19.50	1.73
1.17	1.06	7.33	2.11	13.50	5.18	19.67	1.73
1.33	1.06	7.50	2.11	13.67	4.03	19.83	1.73
1.50	1.06	7.67	2.11	13.83	4.03	20.00	1.73
1.67	1.06	7.83	2.11	14.00	4.03	20.17	1.15
1.83	1.06	8.00	2.11	14.17	2.88	20.33	1.15
2.00	1.06	8.17	2.50	14.33	2.88	20.50	1.15
2.17	1.25	8.33	2.50	14.50	2.88	20.67	1.15
2.33	1.25	8.50	2.50	14.67	2.88	20.83	1.15
2.50	1.25	8.67	2.69	14.83	2.88	21.00	1.15
2.67	1.25	8.83	2.69	15.00	2.88	21.17	1.15
2.83	1.25	9.00	2.69	15.17	2.88	21.33	1.15
3.00	1.25	9.17	3.07	15.33	2.88	21.50	1.15
3.17	1.25	9.33	3.07	15.50	2.88	21.67	1.15
3.33	1.25	9.50	3.07	15.67	2.88	21.83	1.15
3.50	1.25	9.67	3.46	15.83	2.88	22.00	1.15
3.67	1.25	9.83	3.46	16.00	2.88	22.17	1.15
3.83	1.25	10.00	3.46	16.17	1.73	22.33	1.15
4.00	1.25	10.17	4.42	16.33	1.73	22.50	1.15
4.17	1.54	10.33	4.42	16.50	1.73	22.67	1.15

```
                4.33    1.54 | 10.50    4.42 | 16.67    1.73 | 22.83
1.15
                4.50    1.54 | 10.67    5.95 | 16.83    1.73 | 23.00
1.15
                4.67    1.54 | 10.83    5.95 | 17.00    1.73 | 23.17
1.15
                4.83    1.54 | 11.00    5.95 | 17.17    1.73 | 23.33
1.15
                5.00    1.54 | 11.17    9.22 | 17.33    1.73 | 23.50
1.15
                5.17    1.54 | 11.33    9.22 | 17.50    1.73 | 23.67
1.15
                5.33    1.54 | 11.50    9.22 | 17.67    1.73 | 23.83
1.15
                5.50    1.54 | 11.67   28.42 | 17.83    1.73 | 24.00
1.15
                5.67    1.54 | 11.83   72.96 | 18.00    1.73 |
                5.83    1.54 | 12.00  117.50 | 18.17    1.73 |
                6.00    1.54 | 12.17   13.82 | 18.33    1.73 |

-------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   1.32
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.79         0.53
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      93.73        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=     117.50        92.25
               over (min)       10.00        10.00
     Storage Coeff.  (min)=       2.30 (ii)    9.59 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.11
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.26         0.11          0.364 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      95.00        64.10          82.63
     TOTAL RAINFALL   (mm)=      96.00        96.00          96.00
     RUNOFF COEFFICIENT   =       0.99         0.67           0.86

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.65   Curve Number   (CN)= 80.0
|ID= 1 DT=10.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.20

     Unit Hyd Qpeak  (cms)=   0.124

     PEAK FLOW       (cms)=   0.091 (i)
     TIME TO PEAK    (hrs)=  12.167
     RUNOFF VOLUME    (mm)=  52.205
     TOTAL RAINFALL   (mm)=  96.000
     RUNOFF COEFFICIENT   =   0.544

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

--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   0.20
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.19         0.01
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      36.51        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=     117.50       213.96
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       1.31 (ii)    6.51 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.13
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.06         0.01          0.064 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      95.00        77.11          93.21
     TOTAL RAINFALL   (mm)=      96.00        96.00          96.00
     RUNOFF COEFFICIENT   =       0.99         0.80           0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

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

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0003):     0.20   0.064    12.17    93.21
      + ID2= 2 (  0004):     0.65   0.091    12.17    52.20
        ================================================
        ID = 3 (  0005):     0.85   0.155    12.17    61.88

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0002)|   Area    (ha)=   0.10
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.06         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      25.25        40.00
     Mannings n             =     0.013        0.250

     Max.Eff.Inten.(mm/hr)=     117.50        92.25
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       1.05 (ii)    8.34 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.12
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.02         0.01          0.027 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      95.00        64.10          82.61
     TOTAL RAINFALL   (mm)=      96.00        96.00          96.00
     RUNOFF COEFFICIENT   =       0.99         0.67           0.86

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

--------------------------------------------------------------------------------
-----

--------------------
| ADD HYD  (  0006)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
```

```
        ID1= 1 (  0002):     0.10   0.027    12.17    82.61
      + ID2= 2 (  0005):     0.85   0.155    12.17    61.88
        ==================================================
        ID = 3 (  0006):     0.94   0.182    12.17    63.98

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------
-----
```

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

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\05cfad28-c4c7-41fe-bbb4-fd1b340827d2\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\05cfad28-c4c7-41fe-bbb4-fd1b340827d2\scena


DATE: 11/03/2025                          TIME: 12:20:48

USER:


COMMENTS: _____________________________________________________________


--------------------------------------------------------------------------------
----------------------------------
  ********************************************
  ** SIMULATION : 50yr 24hr 10min SCS Type II ( **
  ********************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              042657bd-477a-495a-b1ba-
6907020212d4\9c62a6e3
| Ptotal=110.40 mm |    Comments: 50yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	1.99	12.33	15.90	18.50	1.99
0.17	1.21	6.33	1.99	12.50	15.90	18.67	1.99
0.33	1.21	6.50	1.99	12.67	8.17	18.83	1.99
0.50	1.21	6.67	1.99	12.83	8.17	19.00	1.99
0.67	1.21	6.83	1.99	13.00	8.17	19.17	1.99
0.83	1.21	7.00	1.99	13.17	5.96	19.33	1.99
1.00	1.21	7.17	2.43	13.33	5.96	19.50	1.99
1.17	1.21	7.33	2.43	13.50	5.96	19.67	1.99
1.33	1.21	7.50	2.43	13.67	4.64	19.83	1.99
1.50	1.21	7.67	2.43	13.83	4.64	20.00	1.99
1.67	1.21	7.83	2.43	14.00	4.64	20.17	1.32
1.83	1.21	8.00	2.43	14.17	3.31	20.33	1.32
2.00	1.21	8.17	2.87	14.33	3.31	20.50	1.32
2.17	1.44	8.33	2.87	14.50	3.31	20.67	1.32
2.33	1.44	8.50	2.87	14.67	3.31	20.83	1.32
2.50	1.44	8.67	3.09	14.83	3.31	21.00	1.32
2.67	1.44	8.83	3.09	15.00	3.31	21.17	1.32
2.83	1.44	9.00	3.09	15.17	3.31	21.33	1.32
3.00	1.44	9.17	3.53	15.33	3.31	21.50	1.32
3.17	1.44	9.33	3.53	15.50	3.31	21.67	1.32
3.33	1.44	9.50	3.53	15.67	3.31	21.83	1.32
3.50	1.44	9.67	3.97	15.83	3.31	22.00	1.32
3.67	1.44	9.83	3.97	16.00	3.31	22.17	1.32
3.83	1.44	10.00	3.97	16.17	1.99	22.33	1.32
4.00	1.44	10.17	5.08	16.33	1.99	22.50	1.32
4.17	1.77	10.33	5.08	16.50	1.99	22.67	1.32

```
                4.33    1.77 | 10.50    5.08 | 16.67    1.99 | 22.83
1.32
                4.50    1.77 | 10.67    6.84 | 16.83    1.99 | 23.00
1.32
                4.67    1.77 | 10.83    6.84 | 17.00    1.99 | 23.17
1.32
                4.83    1.77 | 11.00    6.84 | 17.17    1.99 | 23.33
1.32
                5.00    1.77 | 11.17   10.60 | 17.33    1.99 | 23.50
1.32
                5.17    1.77 | 11.33   10.60 | 17.50    1.99 | 23.67
1.32
                5.33    1.77 | 11.50   10.60 | 17.67    1.99 | 23.83
1.32
                5.50    1.77 | 11.67   32.68 | 17.83    1.99 | 24.00
1.32
                5.67    1.77 | 11.83   83.90 | 18.00    1.99 |
                5.83    1.77 | 12.00  135.13 | 18.17    1.99 |
                6.00    1.77 | 12.17   15.90 | 18.33    1.99 |

--------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   1.32
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.79         0.53
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      93.73        40.00
     Mannings n             =     0.013        0.250

     Max.Eff.Inten.(mm/hr)=     135.13       110.34
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       2.18 (ii)    8.96 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.11
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.30         0.13          0.427 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=     109.40        77.15          96.49
     TOTAL RAINFALL   (mm)=     110.40       110.40         110.40
     RUNOFF COEFFICIENT   =       0.99         0.70           0.87

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.65   Curve Number   (CN)= 80.0
|ID= 1 DT=10.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.20

     Unit Hyd Qpeak  (cms)=   0.124

     PEAK FLOW       (cms)=   0.112 (i)
     TIME TO PEAK    (hrs)=  12.167
     RUNOFF VOLUME    (mm)=  64.064
     TOTAL RAINFALL   (mm)= 110.400
     RUNOFF COEFFICIENT   =   0.580

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

--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   0.20
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.19         0.01
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      36.51        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=     135.13       250.48
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       1.24 (ii)    6.13 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.14
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.07         0.01          0.074 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=     109.40        91.04         107.56
     TOTAL RAINFALL   (mm)=     110.40       110.40         110.40
     RUNOFF COEFFICIENT   =       0.99         0.82           0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

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

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0003):     0.20   0.074    12.17   107.56
      + ID2= 2 (  0004):     0.65   0.112    12.17    64.06
        ================================================
        ID = 3 (  0005):     0.85   0.186    12.17    74.33

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0002)|   Area    (ha)=   0.10
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.06         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      25.25        40.00
     Mannings n             =     0.013        0.250

     Max.Eff.Inten.(mm/hr)=     135.13       110.34
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       0.99 (ii)    7.78 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.12
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.02         0.01          0.031 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=     109.40        77.15          96.47
     TOTAL RAINFALL   (mm)=     110.40       110.40         110.40
     RUNOFF COEFFICIENT   =       0.99         0.70           0.87

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

--------------------------------------------------------------------------------
-----

--------------------
| ADD HYD  (  0006)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
```

```
      ID1= 1 (  0002):     0.10   0.031    12.17    96.47
    + ID2= 2 (  0005):     0.85   0.186    12.17    74.33
      ================================================
      ID = 3 (  0006):     0.94   0.217    12.17    76.57

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------
-----
```

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

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\01a04a3d-3ff9-4d7f-b32d-a5bbafdf3173\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\01a04a3d-3ff9-4d7f-b32d-a5bbafdf3173\scena


DATE: 11/03/2025                          TIME: 12:20:48

USER:



COMMENTS: _____________________________________________________________________

--------------------------------------------------------------------------------
----------------------------------
  ********************************************
  ** SIMULATION : 100yr 24hr 10min SCS Type II  **
  ********************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              042657bd-477a-495a-b1ba-
6907020212d4\5dc7a7c7
| Ptotal=122.40 mm |    Comments: 100yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	2.20	12.33	17.63	18.50	2.20
0.17	1.35	6.33	2.20	12.50	17.63	18.67	2.20
0.33	1.35	6.50	2.20	12.67	9.06	18.83	2.20
0.50	1.35	6.67	2.20	12.83	9.06	19.00	2.20
0.67	1.35	6.83	2.20	13.00	9.06	19.17	2.20
0.83	1.35	7.00	2.20	13.17	6.61	19.33	2.20
1.00	1.35	7.17	2.69	13.33	6.61	19.50	2.20
1.17	1.35	7.33	2.69	13.50	6.61	19.67	2.20
1.33	1.35	7.50	2.69	13.67	5.14	19.83	2.20
1.50	1.35	7.67	2.69	13.83	5.14	20.00	2.20
1.67	1.35	7.83	2.69	14.00	5.14	20.17	1.47
1.83	1.35	8.00	2.69	14.17	3.67	20.33	1.47
2.00	1.35	8.17	3.18	14.33	3.67	20.50	1.47
2.17	1.59	8.33	3.18	14.50	3.67	20.67	1.47
2.33	1.59	8.50	3.18	14.67	3.67	20.83	1.47
2.50	1.59	8.67	3.43	14.83	3.67	21.00	1.47
2.67	1.59	8.83	3.43	15.00	3.67	21.17	1.47
2.83	1.59	9.00	3.43	15.17	3.67	21.33	1.47
3.00	1.59	9.17	3.92	15.33	3.67	21.50	1.47
3.17	1.59	9.33	3.92	15.50	3.67	21.67	1.47
3.33	1.59	9.50	3.92	15.67	3.67	21.83	1.47
3.50	1.59	9.67	4.41	15.83	3.67	22.00	1.47
3.67	1.59	9.83	4.41	16.00	3.67	22.17	1.47
3.83	1.59	10.00	4.41	16.17	2.20	22.33	1.47
4.00	1.59	10.17	5.63	16.33	2.20	22.50	1.47
4.17	1.96	10.33	5.63	16.50	2.20	22.67	1.47

```
                4.33    1.96 | 10.50    5.63 | 16.67    2.20 | 22.83
1.47
                4.50    1.96 | 10.67    7.59 | 16.83    2.20 | 23.00
1.47
                4.67    1.96 | 10.83    7.59 | 17.00    2.20 | 23.17
1.47
                4.83    1.96 | 11.00    7.59 | 17.17    2.20 | 23.33
1.47
                5.00    1.96 | 11.17   11.75 | 17.33    2.20 | 23.50
1.47
                5.17    1.96 | 11.33   11.75 | 17.50    2.20 | 23.67
1.47
                5.33    1.96 | 11.50   11.75 | 17.67    2.20 | 23.83
1.47
                5.50    1.96 | 11.67   36.23 | 17.83    2.20 | 24.00
1.47
                5.67    1.96 | 11.83   93.02 | 18.00    2.20 |
                5.83    1.96 | 12.00  149.82 | 18.17    2.20 |
                6.00    1.96 | 12.17   17.63 | 18.33    2.20 |

--------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   1.32
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.79         0.53
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      93.73        40.00
     Mannings n             =     0.013        0.250

     Max.Eff.Inten.(mm/hr)=     149.82       125.52
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       2.09 (ii)    8.53 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.12
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.33         0.15          0.480 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=     121.40        88.20         108.12
     TOTAL RAINFALL   (mm)=     122.40       122.40         122.40
     RUNOFF COEFFICIENT   =       0.99         0.72           0.88

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.65   Curve Number   (CN)= 80.0
|ID= 1 DT=10.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.20

     Unit Hyd Qpeak  (cms)=   0.124

     PEAK FLOW       (cms)=   0.130 (i)
     TIME TO PEAK    (hrs)=  12.167
     RUNOFF VOLUME    (mm)=  74.210
     TOTAL RAINFALL   (mm)= 122.400
     RUNOFF COEFFICIENT   =   0.606

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

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   0.20
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.19         0.01
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      36.51        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=     149.82       280.83
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       1.19 (ii)    5.86 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.14
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.07         0.01          0.082 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=     121.40       102.73         119.53
     TOTAL RAINFALL   (mm)=     122.40       122.40         122.40
     RUNOFF COEFFICIENT   =       0.99         0.84           0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

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

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0003):     0.20   0.082    12.17   119.53
     + ID2= 2 (  0004):     0.65   0.130    12.17    74.21
       ================================================
       ID = 3 (  0005):     0.85   0.212    12.17    84.90

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0002)|   Area    (ha)=   0.10
|ID= 1 DT=10.0 min |   Total Imp(%)=  60.00   Dir. Conn.(%)=  60.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.06         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      25.25        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=     149.82       125.52
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       0.95 (ii)    7.40 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.13
                                                        *  TOTALS*
     PEAK FLOW       (cms)=       0.02         0.01          0.035 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=     121.40        88.20         108.09
     TOTAL RAINFALL   (mm)=     122.40       122.40         122.40
     RUNOFF COEFFICIENT   =       0.99         0.72           0.88

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

--------------------------------------------------------------------------------
-----

--------------------
| ADD HYD  (  0006)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
```

```
      ID1= 1 (  0002):     0.10   0.035    12.17   108.09
    + ID2= 2 (  0005):     0.85   0.212    12.17    84.90
      ==================================================
      ID = 3 (  0006):     0.94   0.247    12.17    87.25

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------
-----
```

POST-DEVELOPMENT VO LAYOUT

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

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\3bc1a68f-bf3b-4bb3-b8e0-4d19accd9d94\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\3bc1a68f-bf3b-4bb3-b8e0-4d19accd9d94\scena


DATE: 11/03/2025                          TIME: 11:54:13

USER:



COMMENTS: _____________________________________________________________


--------------------------------------------------------------------------------
----------------------------------
  ********************************************
  ** SIMULATION : 2yr 24hr 10min SCS Type II (M **
  ********************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              58b3827d-5020-4513-acf3-
085ee55b4949\88a2f7a9
| Ptotal= 48.00 mm |    Comments: 2yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	0.86	12.33	6.91	18.50	0.86
0.17	0.53	6.33	0.86	12.50	6.91	18.67	0.86
0.33	0.53	6.50	0.86	12.67	3.55	18.83	0.86
0.50	0.53	6.67	0.86	12.83	3.55	19.00	0.86
0.67	0.53	6.83	0.86	13.00	3.55	19.17	0.86
0.83	0.53	7.00	0.86	13.17	2.59	19.33	0.86
1.00	0.53	7.17	1.06	13.33	2.59	19.50	0.86
1.17	0.53	7.33	1.06	13.50	2.59	19.67	0.86
1.33	0.53	7.50	1.06	13.67	2.02	19.83	0.86
1.50	0.53	7.67	1.06	13.83	2.02	20.00	0.86
1.67	0.53	7.83	1.06	14.00	2.02	20.17	0.58
1.83	0.53	8.00	1.06	14.17	1.44	20.33	0.58
2.00	0.53	8.17	1.25	14.33	1.44	20.50	0.58
2.17	0.62	8.33	1.25	14.50	1.44	20.67	0.58
2.33	0.62	8.50	1.25	14.67	1.44	20.83	0.58
2.50	0.62	8.67	1.34	14.83	1.44	21.00	0.58
2.67	0.62	8.83	1.34	15.00	1.44	21.17	0.58
2.83	0.62	9.00	1.34	15.17	1.44	21.33	0.58
3.00	0.62	9.17	1.54	15.33	1.44	21.50	0.58
3.17	0.62	9.33	1.54	15.50	1.44	21.67	0.58
3.33	0.62	9.50	1.54	15.67	1.44	21.83	0.58
3.50	0.62	9.67	1.73	15.83	1.44	22.00	0.58
3.67	0.62	9.83	1.73	16.00	1.44	22.17	0.58
3.83	0.62	10.00	1.73	16.17	0.86	22.33	0.58
4.00	0.62	10.17	2.21	16.33	0.86	22.50	0.58
4.17	0.77	10.33	2.21	16.50	0.86	22.67	0.58

```
                4.33    0.77 | 10.50    2.21 | 16.67    0.86 | 22.83
0.58
                4.50    0.77 | 10.67    2.98 | 16.83    0.86 | 23.00
0.58
                4.67    0.77 | 10.83    2.98 | 17.00    0.86 | 23.17
0.58
                4.83    0.77 | 11.00    2.98 | 17.17    0.86 | 23.33
0.58
                5.00    0.77 | 11.17    4.61 | 17.33    0.86 | 23.50
0.58
                5.17    0.77 | 11.33    4.61 | 17.50    0.86 | 23.67
0.58
                5.33    0.77 | 11.50    4.61 | 17.67    0.86 | 23.83
0.58
                5.50    0.77 | 11.67   14.21 | 17.83    0.86 | 24.00
0.58
                5.67    0.77 | 11.83   36.48 | 18.00    0.86 |
                5.83    0.77 | 12.00   58.75 | 18.17    0.86 |
                6.00    0.77 | 12.17    6.91 | 18.33    0.86 |

--------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   0.84
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.80         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      74.78        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      58.75        92.25
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       2.65 (ii)    9.94 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.11
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.12         0.01          0.130 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      47.00        32.05          45.50
     TOTAL RAINFALL   (mm)=      48.00        48.00          48.00
     RUNOFF COEFFICIENT   =       0.98         0.67           0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------
-----
--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------       (cms)     (ha.m.)   |    (cms)     (ha.m.)
                          0.0000      0.0000   |    0.1320      0.0234
                          0.0880      0.0105   |    0.1460      0.0293
                          0.0990      0.0129   |    0.1590      0.0358
                          0.1170      0.0180   |    0.0000      0.0000

                                 AREA     QPEAK     TPEAK       R.V.
                                 (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0001)      0.839      0.130     12.17      45.50
   OUTFLOW: ID= 1 (  0002)      0.839      0.070     12.25      45.45

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 53.94
                  TIME SHIFT OF PEAK FLOW         (min)=  5.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0085

--------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   1.62
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.54         0.08
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=     104.06        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      58.75        92.25
               over (min)        10.00        20.00
     Storage Coeff.  (min)=       3.24 (ii)   10.53 (ii)
     Unit Hyd. Tpeak (min)=      10.00        20.00
     Unit Hyd. peak  (cms)=       0.16         0.08
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.23         0.01          0.245 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.33          12.17
     RUNOFF VOLUME    (mm)=      47.00        32.05          45.50
     TOTAL RAINFALL   (mm)=      48.00        48.00          48.00
     RUNOFF COEFFICIENT   =       0.98         0.67           0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

RESERVOIR(0004)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1760	0.0656
	0.0620	0.0309	0.2110	0.0730
	0.0960	0.0443	0.2320	0.0806
	0.1200	0.0513	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0003)	1.624	0.245	12.17	45.50
OUTFLOW: ID= 1 (0004)	1.624	0.056	12.33	45.43

PEAK FLOW REDUCTION [Qout/Qin](%)= 22.80
TIME SHIFT OF PEAK FLOW (min)= 10.00
MAXIMUM STORAGE USED (ha.m.)= 0.0280

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

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\b7f84e45-9c91-4304-970e-1cb15d27cf2e\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\b7f84e45-9c91-4304-970e-1cb15d27cf2e\scena


DATE: 11/03/2025                          TIME: 11:54:13

USER:


COMMENTS: _____________________________________________________________


--------------------------------------------------------------------------------
----------------------------------
  **********************************************
  ** SIMULATION : 5yr 24hr 10min SCS Type II (M **
  **********************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              58b3827d-5020-4513-acf3-
085ee55b4949\41465053
| Ptotal= 67.20 mm |    Comments: 5yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	1.21	12.33	9.68	18.50	1.21
0.17	0.74	6.33	1.21	12.50	9.68	18.67	1.21
0.33	0.74	6.50	1.21	12.67	4.97	18.83	1.21
0.50	0.74	6.67	1.21	12.83	4.97	19.00	1.21
0.67	0.74	6.83	1.21	13.00	4.97	19.17	1.21
0.83	0.74	7.00	1.21	13.17	3.63	19.33	1.21
1.00	0.74	7.17	1.48	13.33	3.63	19.50	1.21
1.17	0.74	7.33	1.48	13.50	3.63	19.67	1.21
1.33	0.74	7.50	1.48	13.67	2.82	19.83	1.21
1.50	0.74	7.67	1.48	13.83	2.82	20.00	1.21
1.67	0.74	7.83	1.48	14.00	2.82	20.17	0.81
1.83	0.74	8.00	1.48	14.17	2.02	20.33	0.81
2.00	0.74	8.17	1.75	14.33	2.02	20.50	0.81
2.17	0.87	8.33	1.75	14.50	2.02	20.67	0.81
2.33	0.87	8.50	1.75	14.67	2.02	20.83	0.81
2.50	0.87	8.67	1.88	14.83	2.02	21.00	0.81
2.67	0.87	8.83	1.88	15.00	2.02	21.17	0.81
2.83	0.87	9.00	1.88	15.17	2.02	21.33	0.81
3.00	0.87	9.17	2.15	15.33	2.02	21.50	0.81
3.17	0.87	9.33	2.15	15.50	2.02	21.67	0.81
3.33	0.87	9.50	2.15	15.67	2.02	21.83	0.81
3.50	0.87	9.67	2.42	15.83	2.02	22.00	0.81
3.67	0.87	9.83	2.42	16.00	2.02	22.17	0.81
3.83	0.87	10.00	2.42	16.17	1.21	22.33	0.81
4.00	0.87	10.17	3.09	16.33	1.21	22.50	0.81
4.17	1.08	10.33	3.09	16.50	1.21	22.67	0.81

```
                4.33    1.08 | 10.50    3.09 | 16.67    1.21 | 22.83
0.81
                4.50    1.08 | 10.67    4.17 | 16.83    1.21 | 23.00
0.81
                4.67    1.08 | 10.83    4.17 | 17.00    1.21 | 23.17
0.81
                4.83    1.08 | 11.00    4.17 | 17.17    1.21 | 23.33
0.81
                5.00    1.08 | 11.17    6.45 | 17.33    1.21 | 23.50
0.81
                5.17    1.08 | 11.33    6.45 | 17.50    1.21 | 23.67
0.81
                5.33    1.08 | 11.50    6.45 | 17.67    1.21 | 23.83
0.81
                5.50    1.08 | 11.67   19.89 | 17.83    1.21 | 24.00
0.81
                5.67    1.08 | 11.83   51.07 | 18.00    1.21 |
                5.83    1.08 | 12.00   82.25 | 18.17    1.21 |
                6.00    1.08 | 12.17    9.68 | 18.33    1.21 |

--------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   0.84
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.80         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      74.78        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      82.25       140.74
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       2.32 (ii)    8.48 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.12
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.17         0.01          0.185 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      66.20        49.69          64.54
     TOTAL RAINFALL   (mm)=      67.20        67.20          67.20
     RUNOFF COEFFICIENT   =       0.99         0.74           0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------------
-----
--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------       (cms)     (ha.m.)   |    (cms)     (ha.m.)
                          0.0000      0.0000   |    0.1320      0.0234
                          0.0880      0.0105   |    0.1460      0.0293
                          0.0990      0.0129   |    0.1590      0.0358
                          0.1170      0.0180   |    0.0000      0.0000

                                  AREA     QPEAK     TPEAK       R.V.
                                  (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0001)       0.839     0.185     12.17       64.54
   OUTFLOW: ID= 1 (  0002)       0.839     0.095     12.25       64.48

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 51.22
                  TIME SHIFT OF PEAK FLOW         (min)=  5.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0122

--------------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   1.62
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.54         0.08
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=     104.06        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      82.25       140.74
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       2.83 (ii)    8.99 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.16         0.11
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.33         0.03          0.356 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      66.20        49.69          64.55
     TOTAL RAINFALL   (mm)=      67.20        67.20          67.20
     RUNOFF COEFFICIENT   =       0.99         0.74           0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

RESERVOIR(0004)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1760	0.0656
	0.0620	0.0309	0.2110	0.0730
	0.0960	0.0443	0.2320	0.0806
	0.1200	0.0513	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0003)	1.624	0.356	12.17	64.55
OUTFLOW: ID= 1 (0004)	1.624	0.085	12.33	64.47

PEAK FLOW REDUCTION [Qout/Qin](%)= 23.78
TIME SHIFT OF PEAK FLOW (min)= 10.00
MAXIMUM STORAGE USED (ha.m.)= 0.0402

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

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\ddb5e74e-675b-4d25-a90d-69f500b45608\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\ddb5e74e-675b-4d25-a90d-69f500b45608\scena


DATE: 11/03/2025                          TIME: 11:54:14

USER:


COMMENTS: _____________________________________________________________


--------------------------------------------------------------------------------
----------------------------------
  ********************************************
  ** SIMULATION : 25yr 24hr 10min SCS Type II ( **
  ********************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              58b3827d-5020-4513-acf3-
085ee55b4949\3e1a2dc1
| Ptotal= 96.00 mm |    Comments: 25yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	1.73	12.33	13.82	18.50	1.73
0.17	1.06	6.33	1.73	12.50	13.82	18.67	1.73
0.33	1.06	6.50	1.73	12.67	7.10	18.83	1.73
0.50	1.06	6.67	1.73	12.83	7.10	19.00	1.73
0.67	1.06	6.83	1.73	13.00	7.10	19.17	1.73
0.83	1.06	7.00	1.73	13.17	5.18	19.33	1.73
1.00	1.06	7.17	2.11	13.33	5.18	19.50	1.73
1.17	1.06	7.33	2.11	13.50	5.18	19.67	1.73
1.33	1.06	7.50	2.11	13.67	4.03	19.83	1.73
1.50	1.06	7.67	2.11	13.83	4.03	20.00	1.73
1.67	1.06	7.83	2.11	14.00	4.03	20.17	1.15
1.83	1.06	8.00	2.11	14.17	2.88	20.33	1.15
2.00	1.06	8.17	2.50	14.33	2.88	20.50	1.15
2.17	1.25	8.33	2.50	14.50	2.88	20.67	1.15
2.33	1.25	8.50	2.50	14.67	2.88	20.83	1.15
2.50	1.25	8.67	2.69	14.83	2.88	21.00	1.15
2.67	1.25	8.83	2.69	15.00	2.88	21.17	1.15
2.83	1.25	9.00	2.69	15.17	2.88	21.33	1.15
3.00	1.25	9.17	3.07	15.33	2.88	21.50	1.15
3.17	1.25	9.33	3.07	15.50	2.88	21.67	1.15
3.33	1.25	9.50	3.07	15.67	2.88	21.83	1.15
3.50	1.25	9.67	3.46	15.83	2.88	22.00	1.15
3.67	1.25	9.83	3.46	16.00	2.88	22.17	1.15
3.83	1.25	10.00	3.46	16.17	1.73	22.33	1.15
4.00	1.25	10.17	4.42	16.33	1.73	22.50	1.15
4.17	1.54	10.33	4.42	16.50	1.73	22.67	1.15

```
                4.33    1.54 | 10.50    4.42 | 16.67    1.73 | 22.83
1.15
                4.50    1.54 | 10.67    5.95 | 16.83    1.73 | 23.00
1.15
                4.67    1.54 | 10.83    5.95 | 17.00    1.73 | 23.17
1.15
                4.83    1.54 | 11.00    5.95 | 17.17    1.73 | 23.33
1.15
                5.00    1.54 | 11.17    9.22 | 17.33    1.73 | 23.50
1.15
                5.17    1.54 | 11.33    9.22 | 17.50    1.73 | 23.67
1.15
                5.33    1.54 | 11.50    9.22 | 17.67    1.73 | 23.83
1.15
                5.50    1.54 | 11.67   28.42 | 17.83    1.73 | 24.00
1.15
                5.67    1.54 | 11.83   72.96 | 18.00    1.73 |
                5.83    1.54 | 12.00  117.50 | 18.17    1.73 |
                6.00    1.54 | 12.17   13.82 | 18.33    1.73 |

-------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   0.84
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.80         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      74.78        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=     117.50       213.96
               over (min)       10.00        10.00
     Storage Coeff.  (min)=       2.01 (ii)    7.22 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.13
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.25         0.02          0.267 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      95.00        77.11          93.20
     TOTAL RAINFALL   (mm)=      96.00        96.00          96.00
     RUNOFF COEFFICIENT   =       0.99         0.80           0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------------
-----
--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------       (cms)     (ha.m.)   |    (cms)     (ha.m.)
                          0.0000      0.0000   |    0.1320      0.0234
                          0.0880      0.0105   |    0.1460      0.0293
                          0.0990      0.0129   |    0.1590      0.0358
                          0.1170      0.0180   |    0.0000      0.0000

                                  AREA     QPEAK     TPEAK       R.V.
                                  (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0001)       0.839     0.267     12.17      93.20
   OUTFLOW: ID= 1 (  0002)       0.839     0.118     12.25      93.13

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 43.96
                  TIME SHIFT OF PEAK FLOW         (min)=  5.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0187

--------------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   1.62
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.54         0.08
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=     104.06        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=     117.50       213.96
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       2.45 (ii)    7.66 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.12
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.47         0.04          0.515 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=      95.00        77.11          93.21
     TOTAL RAINFALL   (mm)=      96.00        96.00          96.00
     RUNOFF COEFFICIENT   =       0.99         0.80           0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

RESERVOIR(0004)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1760	0.0656
	0.0620	0.0309	0.2110	0.0730
	0.0960	0.0443	0.2320	0.0806
	0.1200	0.0513	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0003)	1.624	0.515	12.17	93.21
OUTFLOW: ID= 1 (0004)	1.624	0.140	12.33	93.13

PEAK FLOW REDUCTION [Qout/Qin](%)= 27.23
TIME SHIFT OF PEAK FLOW (min)= 10.00
MAXIMUM STORAGE USED (ha.m.)= 0.0574

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

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\597d68bb-1e44-40de-a1c1-68243c85925f\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\597d68bb-1e44-40de-a1c1-68243c85925f\scena


DATE: 11/03/2025                          TIME: 11:54:13

USER:


COMMENTS: _____________________________________________________________


--------------------------------------------------------------------------------
---------------------------------
  ********************************************
  ** SIMULATION : 50yr 24hr 10min SCS Type II ( **
  ********************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              58b3827d-5020-4513-acf3-
085ee55b4949\cc4b06d4
| Ptotal=110.40 mm |    Comments: 50yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	1.99	12.33	15.90	18.50	1.99
0.17	1.21	6.33	1.99	12.50	15.90	18.67	1.99
0.33	1.21	6.50	1.99	12.67	8.17	18.83	1.99
0.50	1.21	6.67	1.99	12.83	8.17	19.00	1.99
0.67	1.21	6.83	1.99	13.00	8.17	19.17	1.99
0.83	1.21	7.00	1.99	13.17	5.96	19.33	1.99
1.00	1.21	7.17	2.43	13.33	5.96	19.50	1.99
1.17	1.21	7.33	2.43	13.50	5.96	19.67	1.99
1.33	1.21	7.50	2.43	13.67	4.64	19.83	1.99
1.50	1.21	7.67	2.43	13.83	4.64	20.00	1.99
1.67	1.21	7.83	2.43	14.00	4.64	20.17	1.32
1.83	1.21	8.00	2.43	14.17	3.31	20.33	1.32
2.00	1.21	8.17	2.87	14.33	3.31	20.50	1.32
2.17	1.44	8.33	2.87	14.50	3.31	20.67	1.32
2.33	1.44	8.50	2.87	14.67	3.31	20.83	1.32
2.50	1.44	8.67	3.09	14.83	3.31	21.00	1.32
2.67	1.44	8.83	3.09	15.00	3.31	21.17	1.32
2.83	1.44	9.00	3.09	15.17	3.31	21.33	1.32
3.00	1.44	9.17	3.53	15.33	3.31	21.50	1.32
3.17	1.44	9.33	3.53	15.50	3.31	21.67	1.32
3.33	1.44	9.50	3.53	15.67	3.31	21.83	1.32
3.50	1.44	9.67	3.97	15.83	3.31	22.00	1.32
3.67	1.44	9.83	3.97	16.00	3.31	22.17	1.32
3.83	1.44	10.00	3.97	16.17	1.99	22.33	1.32
4.00	1.44	10.17	5.08	16.33	1.99	22.50	1.32
4.17	1.77	10.33	5.08	16.50	1.99	22.67	1.32

```
                4.33    1.77 | 10.50    5.08 | 16.67    1.99 | 22.83
1.32
                4.50    1.77 | 10.67    6.84 | 16.83    1.99 | 23.00
1.32
                4.67    1.77 | 10.83    6.84 | 17.00    1.99 | 23.17
1.32
                4.83    1.77 | 11.00    6.84 | 17.17    1.99 | 23.33
1.32
                5.00    1.77 | 11.17   10.60 | 17.33    1.99 | 23.50
1.32
                5.17    1.77 | 11.33   10.60 | 17.50    1.99 | 23.67
1.32
                5.33    1.77 | 11.50   10.60 | 17.67    1.99 | 23.83
1.32
                5.50    1.77 | 11.67   32.68 | 17.83    1.99 | 24.00
1.32
                5.67    1.77 | 11.83   83.90 | 18.00    1.99 |
                5.83    1.77 | 12.00  135.13 | 18.17    1.99 |
                6.00    1.77 | 12.17   15.90 | 18.33    1.99 |

-------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   0.84
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.80         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      74.78        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=     135.13       250.48
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       1.90 (ii)    6.79 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.13
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.28         0.03          0.309 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=     109.40        91.04         107.56
     TOTAL RAINFALL   (mm)=     110.40       110.40         110.40
     RUNOFF COEFFICIENT   =       0.99         0.82           0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------------
-----
--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------       (cms)     (ha.m.)   |    (cms)     (ha.m.)
                          0.0000      0.0000   |    0.1320      0.0234
                          0.0880      0.0105   |    0.1460      0.0293
                          0.0990      0.0129   |    0.1590      0.0358
                          0.1170      0.0180   |    0.0000      0.0000

                                  AREA     QPEAK     TPEAK       R.V.
                                  (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0001)       0.839     0.309     12.17     107.56
   OUTFLOW: ID= 1 (  0002)       0.839     0.127     12.25     107.47

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 41.10
                  TIME SHIFT OF PEAK FLOW         (min)=  5.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0223

--------------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   1.62
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.54         0.08
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=     104.06        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=     135.13       250.48
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       2.32 (ii)    7.21 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.13
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.55         0.05          0.595 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=     109.40        91.04         107.56
     TOTAL RAINFALL   (mm)=     110.40       110.40         110.40
     RUNOFF COEFFICIENT   =       0.99         0.82           0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

RESERVOIR(0004)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1760	0.0656
	0.0620	0.0309	0.2110	0.0730
	0.0960	0.0443	0.2320	0.0806
	0.1200	0.0513	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0003)	1.624	0.595	12.17	107.56
OUTFLOW: ID= 1 (0004)	1.624	0.171	12.33	107.49

PEAK FLOW REDUCTION [Qout/Qin](%)= 28.77
TIME SHIFT OF PEAK FLOW (min)= 10.00
MAXIMUM STORAGE USED (ha.m.)= 0.0656

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

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2022)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
Developed and Distributed by Smart City Water Inc
Copyright 2007 - 2022 Smart City Water Inc
All rights reserved.


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


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\2c477917-c9d2-420a-b565-8f16647aac2a\scena
  Summary filename: C:\Users\shuchi\AppData\Local\Civica\VH5\5a5363cb-
6107-44f3-858e-37ad048ca684\2c477917-c9d2-420a-b565-8f16647aac2a\scena


DATE: 11/03/2025                          TIME: 11:54:13

USER:



COMMENTS: _____________________________________________________________


--------------------------------------------------------------------------------
---------------------------------
  ********************************************
  ** SIMULATION : 100yr 24hr 10min SCS Type II  **
  ********************************************


--------------------
|    READ STORM    |    Filename: C:\Users\shuchi\AppD
|                  |              ata\Local\Temp\
|                  |              58b3827d-5020-4513-acf3-
085ee55b4949\6bd34152
| Ptotal=122.40 mm |    Comments: 100yr 24hr 10min SCS Type II (MTO)
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME
RAIN
```

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.17	2.20	12.33	17.63	18.50	2.20
0.17	1.35	6.33	2.20	12.50	17.63	18.67	2.20
0.33	1.35	6.50	2.20	12.67	9.06	18.83	2.20
0.50	1.35	6.67	2.20	12.83	9.06	19.00	2.20
0.67	1.35	6.83	2.20	13.00	9.06	19.17	2.20
0.83	1.35	7.00	2.20	13.17	6.61	19.33	2.20
1.00	1.35	7.17	2.69	13.33	6.61	19.50	2.20
1.17	1.35	7.33	2.69	13.50	6.61	19.67	2.20
1.33	1.35	7.50	2.69	13.67	5.14	19.83	2.20
1.50	1.35	7.67	2.69	13.83	5.14	20.00	2.20
1.67	1.35	7.83	2.69	14.00	5.14	20.17	1.47
1.83	1.35	8.00	2.69	14.17	3.67	20.33	1.47
2.00	1.35	8.17	3.18	14.33	3.67	20.50	1.47
2.17	1.59	8.33	3.18	14.50	3.67	20.67	1.47
2.33	1.59	8.50	3.18	14.67	3.67	20.83	1.47
2.50	1.59	8.67	3.43	14.83	3.67	21.00	1.47
2.67	1.59	8.83	3.43	15.00	3.67	21.17	1.47
2.83	1.59	9.00	3.43	15.17	3.67	21.33	1.47
3.00	1.59	9.17	3.92	15.33	3.67	21.50	1.47
3.17	1.59	9.33	3.92	15.50	3.67	21.67	1.47
3.33	1.59	9.50	3.92	15.67	3.67	21.83	1.47
3.50	1.59	9.67	4.41	15.83	3.67	22.00	1.47
3.67	1.59	9.83	4.41	16.00	3.67	22.17	1.47
3.83	1.59	10.00	4.41	16.17	2.20	22.33	1.47
4.00	1.59	10.17	5.63	16.33	2.20	22.50	1.47
4.17	1.96	10.33	5.63	16.50	2.20	22.67	1.47

```
                4.33    1.96 | 10.50    5.63 | 16.67    2.20 | 22.83
1.47
                4.50    1.96 | 10.67    7.59 | 16.83    2.20 | 23.00
1.47
                4.67    1.96 | 10.83    7.59 | 17.00    2.20 | 23.17
1.47
                4.83    1.96 | 11.00    7.59 | 17.17    2.20 | 23.33
1.47
                5.00    1.96 | 11.17   11.75 | 17.33    2.20 | 23.50
1.47
                5.17    1.96 | 11.33   11.75 | 17.50    2.20 | 23.67
1.47
                5.33    1.96 | 11.50   11.75 | 17.67    2.20 | 23.83
1.47
                5.50    1.96 | 11.67   36.23 | 17.83    2.20 | 24.00
1.47
                5.67    1.96 | 11.83   93.02 | 18.00    2.20 |
                5.83    1.96 | 12.00  149.82 | 18.17    2.20 |
                6.00    1.96 | 12.17   17.63 | 18.33    2.20 |

--------------------------------------------------------------------------
-----

--------------------
| CALIB            |
| STANDHYD (  0001)|   Area    (ha)=   0.84
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.80         0.04
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=      74.78        40.00
     Mannings n             =     0.013        0.250

     Max.Eff.Inten.(mm/hr)=     149.82       280.83
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       1.83 (ii)    6.50 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.13
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.31         0.03          0.343 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=     121.40       102.72         119.53
     TOTAL RAINFALL   (mm)=     122.40       122.40         122.40
     RUNOFF COEFFICIENT   =       0.99         0.84           0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.
```

```
--------------------------------------------------------------------------------
-----
--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------       (cms)     (ha.m.)   |    (cms)     (ha.m.)
                          0.0000      0.0000   |    0.1320      0.0234
                          0.0880      0.0105   |    0.1460      0.0293
                          0.0990      0.0129   |    0.1590      0.0358
                          0.1170      0.0180   |    0.0000      0.0000

                                  AREA     QPEAK     TPEAK       R.V.
                                  (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0001)       0.839     0.343     12.17     119.53
   OUTFLOW: ID= 1 (  0002)       0.839     0.134     12.25     119.43

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 39.19
                  TIME SHIFT OF PEAK FLOW         (min)=  5.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0253

--------------------------------------------------------------------------------
-----
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   1.62
|ID= 1 DT=10.0 min |   Total Imp(%)=  95.00   Dir. Conn.(%)=  90.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.54         0.08
     Dep. Storage     (mm)=       1.00         1.50
     Average Slope     (%)=       1.00         2.00
     Length            (m)=     104.06        40.00
     Mannings n           =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=     149.82       280.83
               over (min)        10.00        10.00
     Storage Coeff.  (min)=       2.23 (ii)    6.90 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=       0.17         0.13
                                                          *  TOTALS*
     PEAK FLOW       (cms)=       0.61         0.06          0.662 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.17          12.17
     RUNOFF VOLUME    (mm)=     121.40       102.72         119.53
     TOTAL RAINFALL   (mm)=     122.40       122.40         122.40
     RUNOFF COEFFICIENT   =       0.99         0.84           0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  85.0    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.

RESERVOIR(0004)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1760	0.0656
	0.0620	0.0309	0.2110	0.0730
	0.0960	0.0443	0.2320	0.0806
	0.1200	0.0513	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0003)	1.624	0.662	12.17	119.53
OUTFLOW: ID= 1 (0004)	1.624	0.200	12.33	119.45

PEAK FLOW REDUCTION [Qout/Qin](%)= 30.27
TIME SHIFT OF PEAK FLOW (min)= 10.00
MAXIMUM STORAGE USED (ha.m.)= 0.0723

APPENDIX "C"

GEOTECHNICAL INFORMATION

Golder's Phase II ESA report is included with submission materials as per Candevcon submission cover letter.

APPENDIX "D"

PRELIMNINARY REFERENCE & DESIGN DRAWINGS


SKETCH ILLUSTRATING
TOPOGRAPHIC INFORMATION FOR
PRELIMINARY DESIGN PURPOSES
9230 GUELPH LINE
TOWN OF MILTON
REGIONAL MUNICIPALITY OF HALTON
SCALE 1: 500
10 5 0 5 10 15 20 30 40 50 metres
David B. Searles Surveying Ltd.
ONTARIO LAND SURVEYORS
METRIC
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048
LOT 8, CONCESSION 3
PIN 24980-0178(LT)
SUBJECT TO EASEMENT AS IN 327898E,623263,PM268
CAMPBELLVILLE ROAD
PART 1 PLAN 20R-11063
PART 2 PLAN 20R-11063
PART 2, PLAN 20R-9412
SUBJECT TO EASEMENT AS IN 380386 AND 712446
PIN 24980-0180(LT)
PART 1, PLAN 20R-1113 SUBJECT TO EASEMENT AS IN HR246117 PIN 24980-0179(LT)
POND
PART 1 PLAN 20R-9412
LOT 7, CONCESSION 3
PIN 24980-0181(LT)
GUELPH LINE (ROAD ALLOWANCE BETWEEN CONCESSIONS 3 AND 4)
DEPOSITED PLAN 1248 (MTO FILE P-3172-49)
DEPOSITED PLAN 713 (MTO FILE P-3172-11)
PART 1, DEPOSITED PLAN 1325
MTO FILE (P-3172-50)
PIN 24980-0208(LT)
PART 1, DEPOSITED PLAN 1325 HWY'S FILE (P-3172-50)
PIN 24980-0208(LT)
THE KING'S HIGHWAY No. 401 DESIGNED AS CONTROLLED ACCESS HIGHWAY BY O.REG. 62/58 BY DEPOSITED PLAN 659 (P3172-4) DEPOSITED PLAN 868 (P-3122-6)
LEGEND
NOTE
PROPERTY LIMITS ARE NOT FENCED UNLESS OTHERWISE NOTED ON THE FACE OF THE PLAN.
DRIPLINE MARKED BY WILLIAMS & ASSOCIATES, FORESTRY CONSULTING LTD. ON MAY 25, 2021.
FIELDWORK COMPLETED ON JUNE 17, 2021.
BENCHMARK NOTE
ELEVATIONS ARE REFERRED TO TOWN OF MILTON BENCHMARK No. 00820080008, BEING 1.8m ROUND IRON BAR WITH BRASS CAP, 30cm BELOW GROUND, LOCATED ON THE NORTH SIDE OF HIGHWAY 401 AT THE END OF 2nd LINE ROAD, HAVING AN ELEVATION OF 294.768 m.
VERTICAL DATUM: CANADIAN GEODETIC DATUM, 1928 (1978 SOUTHERN ONTARIO READJUSTMENT)
CAUTION
THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED EXCEPT FOR THE PURPOSE INDICATED IN THE TITLE BLOCK.
BOUNDARY INFORMATION ILLUSTRATED HEREON HAS BEEN COMPILED FROM PRELIMINARY PLAN OF SURVEY BY DAVID B. SEARLES SURVEYING LTD. (FILE No.:23-0-15) AND HAS NOT BEEN VERIFIED BY FIELD MEASUREMENT.
© THE REPRODUCTION, ALTERATION OR USE OF THIS PLAN, IN WHOLE OR IN PART, WITHOUT THE EXPRESS PERMISSION OF DAVID B. SEARLES SURVEYING LTD. IS STRICTLY PROHIBITED.
David B. Searles Surveying Ltd.
ONTARIO LAND SURVEYORS
4255 Sherwoodtowne Blvd., Suite 206, Mississauga, Ontario L4Z 1Y5
Tel: (905) 273-6840 Fax: (905) 896-4410
Email: info@dbsearles.ca
Calculator RSW
Draftsperson PG
Editor ADS
Plan Index No. F 16
Calculation File 23-15CALC.DWG
Drawing File 23-3-15.DWG
File No. 23-3-15

SETUP 1:1000m 30x42

KEY PLAN
1:5000

CAMPBELLVILLE ROAD

PETRO-CANADA

NASSAGAWEYA TENNIS CENTRE

GUELPH LINE No. 1

DRIP LINE MARKED BY WILLIAMS & ASSOCIATES, FORESTRY CONSULTING LTD. ON MAY 25th 2021 AND SURVEYED BY DAVID B. SEARLES O.L.S. ON JUNE 17 2021 AS PER DRAWING FILE 23-3-15.DWG.

DRIPLINE AS MEASURED ON JUNE 17, 2021

5m

20m

C5*3

A1

HIGHWAY 401
MACDONALD - CARTIER FREEWAY

LEGEND:

- PROPERTY LINE
- C5*3 ZONING BY-LAW 144-2003
- VEGETATION LINE AS PER DAVID B. SEARLES SURVEYING LTD. DWG. No. 23-0-15 DATED MAY 2015
- DRIP LINE MARKED BY WILLIAMS & ASSOCIATES, FORESTRY CONSULTING LTD. ON MAY 25th 2021 AND SURVEYED BY DAVID B. SEARLES O.L.S. ON JUNE 17 2021 AS PER DRAWING FILE 23-3-15.DWG.
- 10m SETBACK FROM DRIPLINE
- PROPOSED DRIVEWAY
- 154 TRAILER STORAGE

154 TRAILER STORAGE SPACES

NO.	DESCRIPTION	DATE	BY
6			
5			
4			
3			
2			
1			

REVISIONS

CANDEVCON LIMITED
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE BRAMPTON, ONTARIO L6P 0M7
TEL. (905) 794-0600 FAX (905) 794-0611

Mohawk Inn Property

9230 GUELPH LINE
CAMPBELLVILLE ONTARIO

SHEET TITLE:
TRAILER STORAGE LAYOUT PLAN (EXIST. BUILDING DEMOLISHED)

DRAWN BY: S.G.K.	PROJECT No. W20135
CHECKED BY: M.J.	DRAWING No. 6
SCALE: 1:1000	TSLP-1
DATE: DEC., 12th 2025	

SETUP 1:1000m 30x42

KEY PLAN
1:5000

CAMPBELLVILLE ROAD

PETRO-CANADA

NASSAGAWEYA TENNIS CENTRE

GUELPH LINE No. 1

20.0m

8.0m

DRIP LINE MARKED BY WILLIAMS & ASSOCIATES, FORESTRY CONSULTING LTD. ON MAY 25th 2021 AND SURVEYED BY DAVID B. SEARLES O.L.S. ON JUNE 17 2021 AS PER DRAWING FILE 23-3-15.DWG.

C5*3

DRIPLINE AS MEASURED ON JUNE 17, 2021

A1

HIGHWAY 401
MACDONALD - CARTIER FREEWAY

LEGEND:

- PROPERTY LINE
- C5*3 ZONING BY-LAW 144-2003
- VEGETATION LINE AS PER DAVID B. SEARLES SURVEYING LTD. DWG. No. 23-0-15 DATED MAY 2015
- DRIP LINE MARKED BY WILLIAMS & ASSOCIATES, FORESTRY CONSULTING LTD. ON MAY 25th 2021 AND SURVEYED BY DAVID B. SEARLES O.L.S. ON JUNE 17 2021 AS PER DRAWING FILE 23-3-15.DWG.
- 10m SETBACK FROM DRIPLINE
- PROPOSED DRIVEWAY
- 156 TRAILER STORAGE

96 TRAILER STORAGE SPACES

NO.	DESCRIPTION	DATE	BY
5			
4			
3			
2			
1			

REVISIONS

CANDEVCON LIMITED
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE BRAMPTON, ONTARIO L6P 0M7
TEL. (905) 794-0600 FAX (905) 794-0611

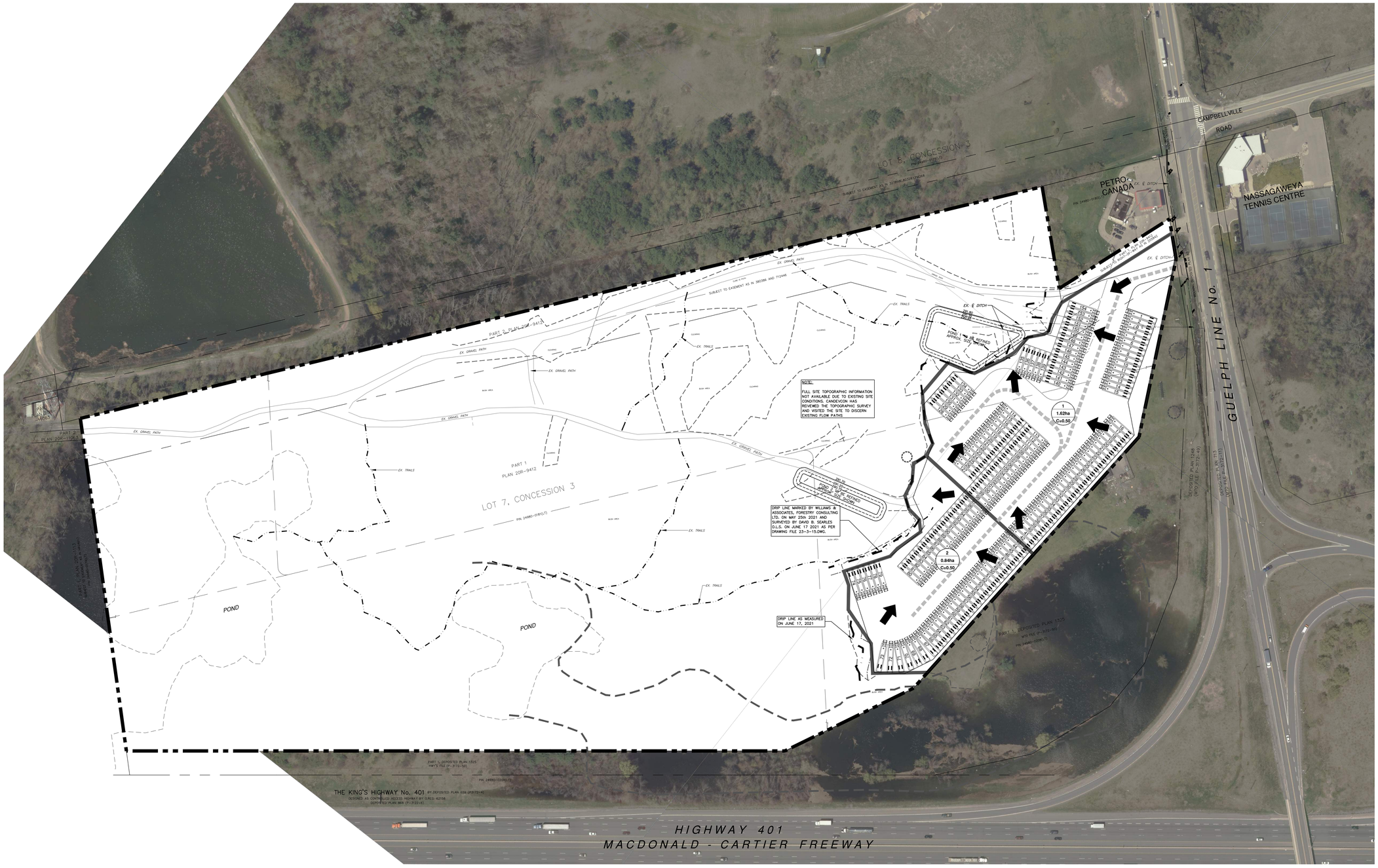
Mohawk Inn Property

9230 GUELPH LINE
CAMPBELLVILLE ONTARIO

SHEET TITLE:
TRAILER STORAGE LAYOUT PLAN
(EXISTING BUILDING TO REMAIN)

DRAWN BY: S.G.K.	PROJECT No. W20135
CHECKED BY: M.J.	DRAWING No. 5
SCALE: 1:1000	TSLP-1A
DATE: DEC., 12th 2025	


LOT 8, CONCESSION 3
LOT 7, CONCESSION 3
PART 2 PLAN 20R-9412
PART 1 PLAN 20R-9412
PART 2 PLAN 20R-11951
PART 1 PLAN 20R-11951
SUBJECT TO EASEMENT AS IN 380386 AND 712446
SUBJECT TO EASEMENT AS IN 317696,801353,743628
EX. GRAVEL PATH
EX. TRAILS
EX. TRAILS
EX. TRAILS



KEY PLAN

LEGEND:

- LIMIT OF SUBDIVISION
- C5*3 ZONING BY-LAW 144-2003
- VEGETATION LINE AS PER DAVID B. SEARLES SURVEYING LTD. DWG. No. 23-0-15 DATED MAY 2015
- DRIP LINE MARKED BY WILLIAMS & ASSOCIATES, FORESTRY CONSULTING LTD. ON MAY 25th 2021 AND SURVEYED BY DAVID B. SEARLES O.L.S. ON JUNE 17 2021 AS PER DRAWING FILE 23-3-15.DWG.
- 10m SETBACK FROM DRIPLINE
- EXISTING TRAILS
- DRAINAGE BOUNDARY
- POST DRAINAGE FLOW DIRECTION
- 1 / 0.84ha / C=0.50 — DENOTES DRAINAGE NODE; DENOTES AREA IN HECTARES; DENOTES DRAINAGE COEFFICIENT
- PROPOSED DRIVEWAY
- 154 — TRAILER STORAGE

REFERENCE DRAWINGS:

1. REFER TO BASE PLAN (BP-1) PREPARED BY CANDEVCON GROUP INC.

NO.	DESCRIPTION	DATE	BY
5			
4			
3			
2			
1			

REVISIONS

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
3358 GOREWAY DRIVE
BRAMPTON ON. L6P-0M7
TEL (905) 794-0600
FAX (905) 794-0611

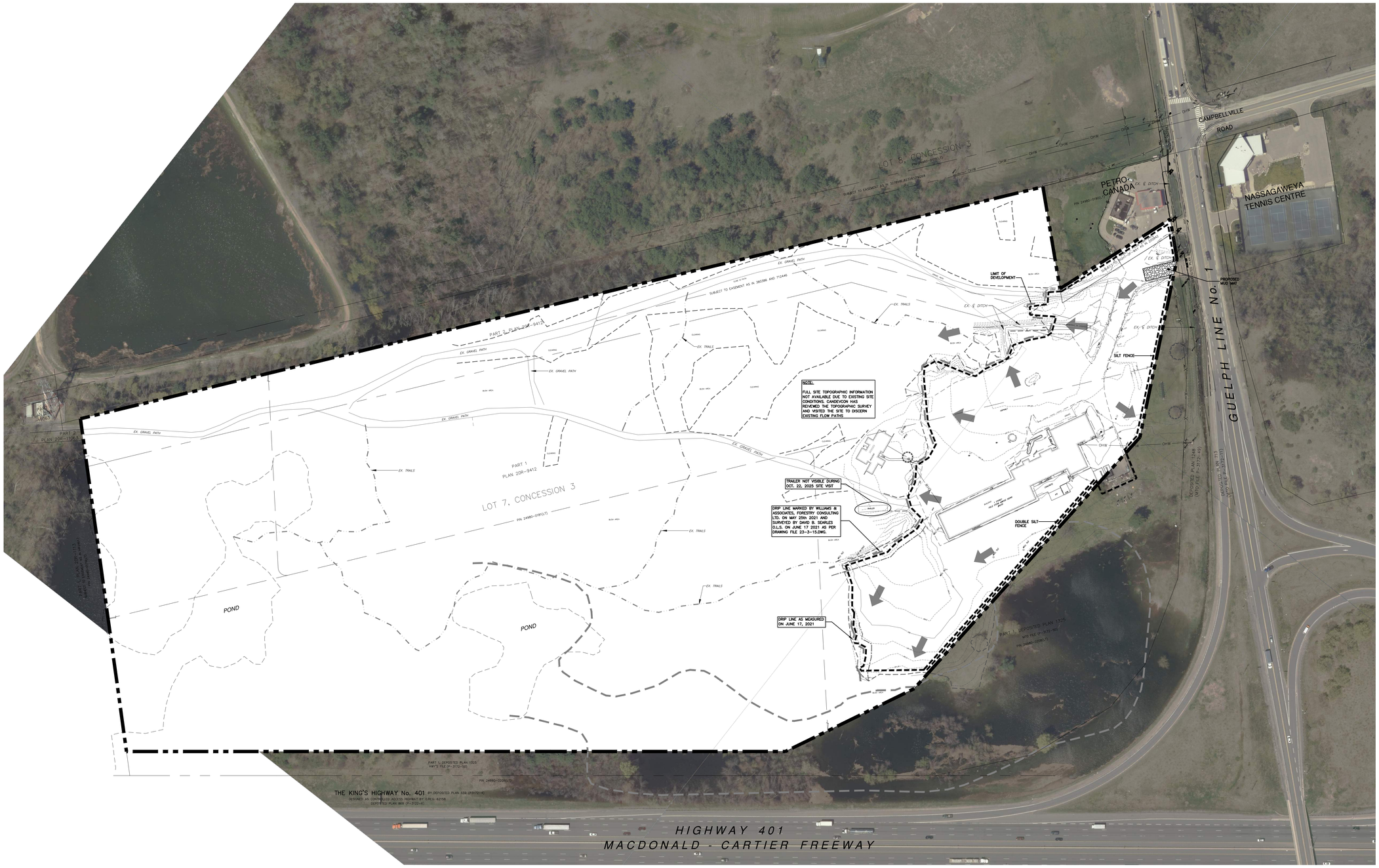
MOHAWK INN PROPERTY

9230 GUELPH LINE
TOWN OF MILTON
REGIONAL MUNICIPALITY OF HALTON

SHEET TITLE:

POST DRAINAGE AREA PLAN

DRAWN BY: E.A.M	PROJECT No. W20135
CHECKED BY: P.A.G	DRAWING No. PD-1
SCALE: 1:1000	
DATE: OCT 1st, 2025	5



KEY PLAN

LEGEND:

- LIMIT OF SUBDIVISION
- C5*3 ZONING BY-LAW 144-2003
- VEGETATION LINE AS PER DAVID B. SEARLES SURVEYING LTD. DWG. No. 23-0-15 DATED MAY 2015
- DRIP LINE MARKED BY WILLIAMS & ASSOCIATES, FORESTRY CONSULTING LTD. ON MAY 25th 2021 AND SURVEYED BY DAVID B. SEARLES O.L.S. ON JUNE 17 2021 AS PER DRAWING FILE 23-3-15.DWG.
- 10m SETBACK FROM DRIPLINE
- EXISTING TRAILS
- EXISTING FLOW DIRECTION
- EXISTING DRAINAGE FLOW PATH
- SILT FENCE
- DOUBLE SILT FENCE
- MUD MAT CONSTRUCTION ACCESS
- TEMPORARY CATCHBASIN SEDIMENT CONTROL INSERT
- CUT-OFF SWALE
- ROCK FLOW CHECK AS PER OPSD 219.210

REFERENCE DRAWINGS:

1. REFER TO BASE PLAN (BP-1) PREPARED BY CANDEVCON GROUP INC.

NO.	DESCRIPTION	DATE	BY
5			
4			
3			
2			
1			

REVISIONS

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
5086 DOREWAY DRIVE
BRAMPTON ON. L6P-0M7
TEL (905) 794-0600
FAX (905) 794-0611

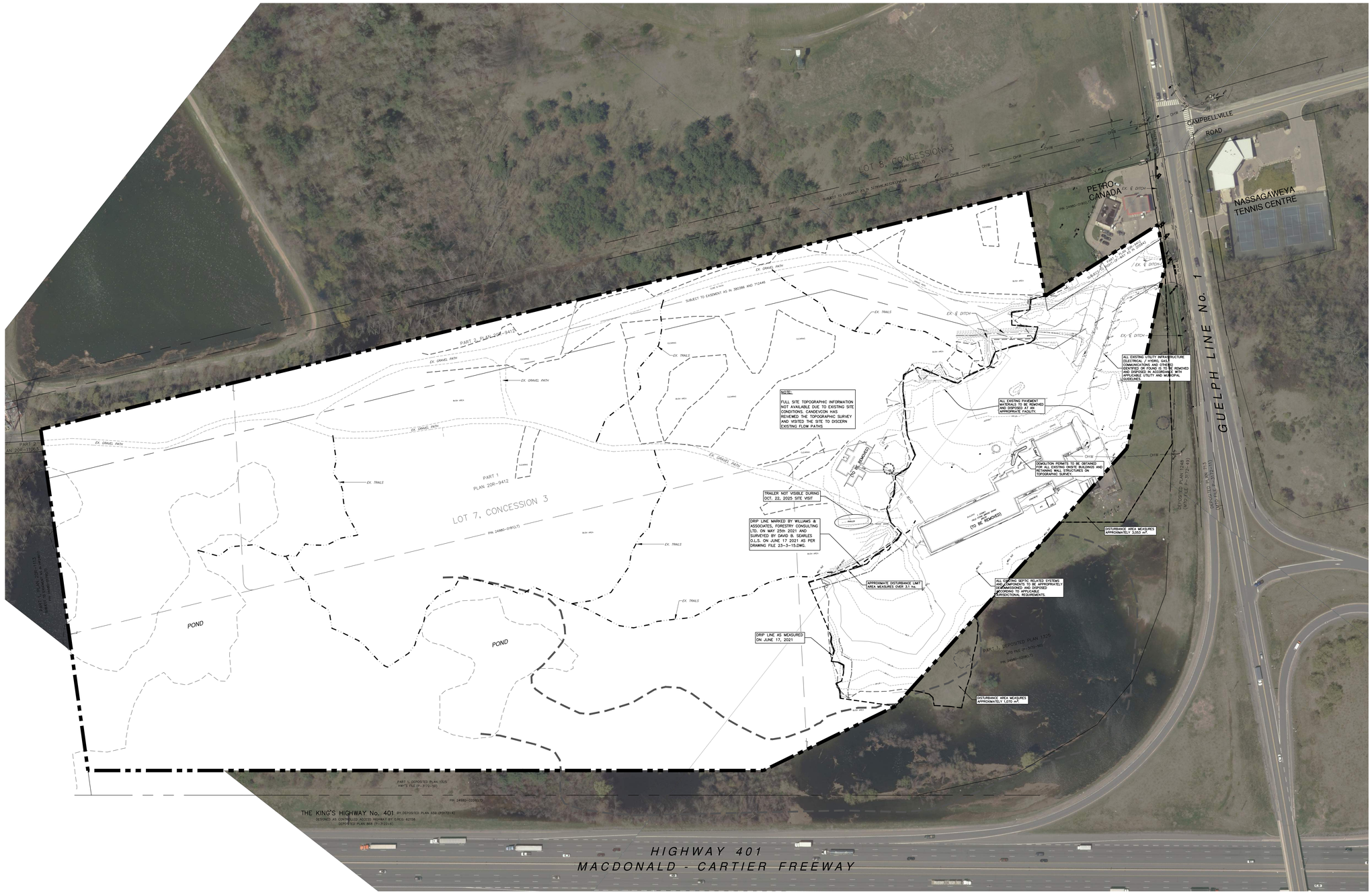
MOHAWK INN PROPERTY

9230 GUELPH LINE
TOWN OF MILTON
REGIONAL MUNICIPALITY OF HALTON

SHEET TITLE:

EROSION & SEDIMENT CONTROL PLAN

DRAWN BY: E.A.M	PROJECT No. W20135
CHECKED BY: P.A.G	DRAWING No. ESC-1
SCALE: 1:1000	
DATE: OCT 1st, 2025	1



KEY PLAN

LEGEND:

- LIMIT OF SUBDIVISION
- C5*3 ZONING BY-LAW 144-2003
- VEGETATION LINE AS PER DAVID B. SEARLES SURVEYING LTD. DWG. No. 23-0-15 DATED MAY 2015
- DRIP LINE MARKED BY WILLIAMS & ASSOCIATES, FORESTRY CONSULTING LTD. ON MAY 25th 2021 AND SURVEYED BY DAVID B. SEARLES O.L.S. ON JUNE 17 2021 AS PER DRAWING FILE 23-3-15.DWG.
- 10m SETBACK FROM DRIPLINE
- EXISTING TRAILS

REFERENCE DRAWINGS:

1. REFER TO BASE PLAN (BP-1) PREPARED BY CANDEVCON GROUP INC.

NO.	DESCRIPTION	DATE	BY
5			
4			
3			
2			
1			

REVISIONS

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
8358 GOREWAY DRIVE, BRAMPTON ON, L6P-0M7
TEL (905) 794-0600
FAX (905) 794-0611

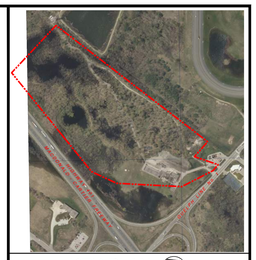
MOHAWK INN PROPERTY

9230 GUELPH LINE
TOWN OF MILTON
REGIONAL MUNICIPALITY OF HALTON

SHEET TITLE:

REMOVAL PLAN

DRAWN BY: E.A.M	PROJECT No. W20135
CHECKED BY: P.A.G	DRAWING No.
SCALE: 1:1000	RM-1
DATE: OCT 1st, 2025	1



KEY PLAN

LEGEND:

- LIMIT OF SUBDIVISION
- C5*3 ZONING BY-LAW 144-2003
- VEGETATION LINE AS PER DAVID B. SEARLES SURVEYING LTD. DWG. No. 23-0-15 DATED MAY 2015
- DRIP LINE MARKED BY WILLIAMS & ASSOCIATES, FORESTRY CONSULTING LTD. ON MAY 25th 2021 AND SURVEYED BY DAVID B. SEARLES O.L.S. ON JUNE 17 2021 AS PER DRAWING FILE 23-3-15.DWG.
- 10m SETBACK FROM DRIPLINE
- EXISTING TRAILS
- PROP. CUT-OFF SWALE (SEE DETAIL ON THIS DWG)
- 291.00 PROPOSED ROAD GRADE
- x 290.79 EXIST. GRADE
- PROPOSED DRIVEWAY
- TRAILER STORAGE

REFERENCE DRAWINGS:

1. REFER TO BASE PLAN (BP-1) PREPARED BY CANDEVCON GROUP INC.

NO.	DESCRIPTION	DATE	BY
6			
5			
4			
3			
2			
1			

REVISIONS

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
8358 GOREWAY DRIVE, BRAMPTON ON. L6P-0M7
TEL (905) 794-0600
FAX (905) 794-0611

MOHAWK INN PROPERTY

9230 GUELPH LINE
TOWN OF MILTON
REGIONAL MUNICIPALITY OF HALTON

SHEET TITLE:

SERVICING & GRADING PLAN

DRAWN BY: E.A.M	PROJECT No. W20135
CHECKED BY: P.A.G	DRAWING No. SG-1
SCALE: 1:1000	
DATE: OCT 1st, 2025	6